

A MODEL OF TRANSFER OF ACTIVITY-BASED COSTING TRAINING
FOR PRACTICING ENGINEERS IN MANUFACTURING COMPANIES

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Oh Allah!

Make useful for me what You taught me and
teach me knowledge that will be useful to me
Ameen.

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ABSTRACT

Ineffective transfer of training occurs due to the failure of trainees to apply what was learned from the classroom lecture to actual work environment. This situation has caused inefficiency on business effort to improve manufacturing operations. Thus, organisations demand better understanding on training programmes in order to improve their effectiveness. The purpose of this research is to explore experiences of trainees on transfer of Activity-Based Costing (ABC) training and factors that influence the training transfer. The participants of this study were practicing engineers of companies which are members of the Association of Small and Medium Scale Manufacturers, South Johor or alumni of Universiti Teknologi Malaysia who attended the ABC training programme. The research design of this study was based on a qualitative research methodology using the Constructivist Grounded Theory approach. Data collection involved interviewing participants, observations and reviewing of related documents immediately and three months after the completion of the training. The study has successfully constructed a new substantive transfer of training theory, which provided a holistic view of training transfer and identified factors that influence transfer across stages before, during, and after training. The qualitative research approach used in this study which provided understanding of the transfer phenomenon contributes to training literature as most previous studies were dominated by quantitative methods or focused on examining factors and models already identified. The study also formulated the Training Transfer Trajectory Model (TTTM) that integrated yet simplified the transfer components into four stages of transfer progression, which is more practical to be used by practitioners in implementing ABC training or other similar types of training. Using TTTM as a training guide, manufacturing organisations in Malaysia can also gain benefits when their trainees are able to transfer the training back to the workplaces.

ABSTRAK

Pemindahan latihan yang kurang berkesan berlaku kerana kegagalan pelatih mengamalkan latihan yang dipelajari di bilik kuliah kepada persekitaran kerja sebenar. Ini menyebabkan ketidakcekapan ke atas usaha penambahbaikan operasi pembuatan. Oleh itu, organisasi memerlukan kefahaman yang lebih baik mengenai program latihan bagi meningkatkan keberkesanannya. Tujuan kajian ini adalah untuk meneroka pengalaman pelatih dalam pemindahan latihan *Activity-Based Costing* (ABC) dan faktor-faktor yang mempengaruhi pemindahan latihan. Peserta kajian ini adalah jurutera di syarikat pembuatan, ahli Pertubuhan Pengilang Kecil dan Sederhana Johor Selatan atau alumni Universiti Teknologi Malaysia yang telah menghadiri program latihan ABC. Reka bentuk kajian ini berdasarkan metodologi penyelidikan kualitatif menggunakan *Constructivist Grounded Theory*. Data kajian melibatkan temuduga, pemerhatian dan pemeriksaan dokumen yang dikumpulkan sebaik sahaja tamat latihan dan juga tiga bulan selepas latihan. Kajian ini telah berjaya membina satu teori substantif baru pemindahan latihan yang holistik dengan mengenalpasti faktor yang mempengaruhi pemindahan merentasi peringkat-peringkat sebelum, semasa dan selepas latihan. Pendekatan kaedah kualitatif yang digunakan dalam kajian ini bagi memahami fenomena pemindahan juga menyumbang kepada literatur pemindahan latihan memandangkan kebanyakan kajian sebelum ini didominasi oleh kaedah penyelidikan kuantitatif atau memberi tumpuan kepada menguji faktor dan model latihan yang telah dikenalpasti. Kajian ini juga telah menghasilkan *Training Transfer Trajectory Model* (TTTM) yang bersepadu tetapi mempermudah komponen pemindahan kepada empat peringkat perkembangan yang lebih praktikal untuk digunakan dalam latihan ABC atau latihan lain yang seumpamanya. Dengan menggunakan TTTM sebagai panduan latihan, organisasi pembuatan di Malaysia juga akan mendapat manfaat apabila pelatih-pelatih mereka dapat memindahkan latihan kepada tempat kerja mereka.

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CHAPTER 1

INTRODUCTION

1.1 General Background

The importance of manufacturing sector as the backbone of Malaysia's economic growth should not be overemphasised. For example, the new jobs created in the manufacturing sector during a period amounted to 853,700 jobs, as compared to trading, hotel and restaurant combined which only 810,400 jobs (Government of Malaysia, 2005). Further, the sector has generated about one third of the Gross National Product, represented over 70 per cent of the country's exports and employed about 3.5 million of the total 12 million country's labour force (Malaysia, Ministry of Finance, 2008). Hence, the effort to study and provide educational support to develop human capital for the manufacturing sector is considered an important concern and vital to prepare them with technological skills and critical thinking abilities in order to sustain Malaysian economic growth and to meet current and future challenges in the process to transform the country into a knowledge-based economy (Haslinda Abdullah, 2009). As most manufacturing companies are facing greater challenge to stay competitive, they have to embark in various process improvement initiatives such as Total Quality Management (TQM), lean manufacturing, Just In Time (JIT), Computer Integrated Manufacturing (CIM) and Material Requirement Planning II (MRPII). Yet, other aspect of profitability: cost, which is becoming a significant factor for long term success of a company, has not been given adequate attention. Fortunately, innovation in the field of management accounting has led to the

development of a recent cost improvement tool called Activity Based Costing (ABC), which is able to help companies in process improvement and making decision. Certainly, professional staffs such as practicing engineers who work in manufacturing organisations need to be effectively trained with ABC competency.

ABC practices in manufacturing companies have not been very popular till this date. Even though there has been increasing interest in the application of better costing system such as ABC in manufacturing companies (Morrow and Connolly,1991), yet the interest has only developed drastically in mid-1980s due to the introduction of “Relevance Lost: The Rise and Fall of Management Accounting”, which highlighted the problem faced by most manufacturing companies (Johnson and Kaplan,1987). In the introduction page, the author provides a very strong statement to describe the problem faced by companies:

“Today’s management accounting information, driven by the procedure and cycle of organisation’s financial reporting system, is too late, too aggregate and too distorted to be relevant for engineers’ planning and control decision”

In another perspective, (Evans and Lindsay, 2002) pointed out that it is important to manufacturing companies today to understand and apply one determinant of profitability: cost. Indeed, the author believed that ability to obtain and use accurate and timely cost information has becoming more urgent effort for long run success of any company to attract potential customers or to retain the loyalty customers in purchasing and using of products. Unfortunately, most manufacturing companies are still using the traditional costing system, which is based on labour-intensive production system, and unable to serve the present need of manufacturing companies (Chen, 1996). Fortunately, this problem was clearly voiced out and a possible solution has been addressed by Druckers (1995), a management teacher and thinker;

“Traditional cost accounting in manufacturing – now seventy-five year old – does not record the non-producing, such as the cost of faulty

quality, or of the machine being out of order, or of needed parts not being on hand. Yet these unrecorded and uncontrolled costs in some plants run as high as the costs that traditional accounting does record: By contrast, a new method of cost accounting develop in the past ten years – called ‘activity-based’ accounting – record all costs. And it related them, as traditional cost accounting cannot, to value added. Within the next ten years it should be in general use. And then we will have operational control in manufacturing”

Activity Based Costing (ABC) can provide financial and non-financial information to measure the cost of each activity in production and in supporting activities to produce and deliver the product to customers (Sohal and Chung, 1998). Since ABC method has the advantage to provide more accurate product costs, implementing ABC method will help companies improve their operational performance (Gunasekaran, 1999). Furthermore, a recently refined method of ABC analysis, which is called “Time-Driven Activity-Based Costing (TDABC), claims to be an easier and more powerful approach to be implemented (Kaplan and Anderson, 2007).

There is another issue concerning ABC Training for practicing engineers in Manufacturing Companies. Realising benefits gained from implementation of ABC, many companies have embarked in applying ABC system. However, these companies encountered many problems and barriers during ABC implementation phase, which made some of them decided to abort ABC system, whereby they were unable to exploit its advantages. According to Krumwiede (1998), one of the reasons behind unsuccessful implementation of ABC could be traced to the lack of knowledge, skill and attitude to carry out the ABC implementation from the beginning to the end. Another reason described by researchers on the lack of ABC success was the issue of ownership in implementing ABC which should not be led by accounting personnel; instead the author suggests letting technical staffs who deal with operational aspect of manufacturing practices such as practicing engineers who work as section or department heads in manufacturing

organisations to lead ABC implementation. Practicing engineers who work in manufacturing companies are normally identified as industrial/production engineers. They are trained in managing manufacturing operations and engineering systems and are the most suitable candidates to take ownership and responsibility in implementing ABC.

1.1.1 Transfer of Training Issues

Realising training as a practical solution to equip practicing engineers in manufacturing companies with ABC competency, another related concern arises on how to ensure the effectiveness of this training in-term of the extent of transfer back whatever the trainees have learned to the work place. The concern is justified, since most organisations regarded training as an expensive investment. Admittedly, training has been regarded as an expensive investment where business organisation spent exurban amount of money annually on training, yet little of this investment could lead to positive transfer result. It has been reported that very little of what is learned in training is applied on the job and most training expenditures do not transfer to the job (Grossman & Salas, 2011). To quote some examples, recent industry report by the American Society for Training and Development (ASTD), U.S. organizations spend more than \$125 billion annually on employee training and development (Paradise, 2007). Indeed, in year 2008, the expanses recorded for employee training and development by U.S. organizations reached \$134 billion (Paradise & Patel, 2009), however Ford (2009) argued that only 20 per cent of the learned skills were transferred back to trainees' workplace. Similarly, in Malaysia, developing human capital is also becoming an important priority as evidenced by big financial commitment provided by the Malaysian Government as indicated in the national budget 2007 which allocated RM 33.4 billion to further strengthen the education and training system (Ahmad Badawi, 2006). Indeed, the allocation for training alone in Malaysian Budget Plan has shown an increase trend, from RM 42,372.9 million in the Eighth Malaysia Plan 2001-2005 (Economic Planning Unit, 2001) to RM 45,149.1 million in Ninth Malaysia Plan 2006-2010 (Economic

Planning Unit, 2005). The figures represented an increase of 6.6% in training allocation, emphasising the importance of training to the government of Malaysia to improve the value of its human capital. Moreover, the Tenth Malaysia Plan 2011–2015 (Mohd Najib Tun Abduk Razak, 2010) introduced recently that focuses toward building Malaysia as a knowledge-based economic nation has listed Ten Big Ideas as the fundamental themes has shown an important concern placed by the Malaysian Government on the development of soft infrastructure such as in the development of human capital (Yi and Jayasingam, 2012). Thus, despite concerns and large investments in training by organisations in developed countries and also in developing countries such as in Malaysia, organizations are often not sure to what extent employees effectively used the training once back on the job as they continue to question the true benefits of their training expenditures (Blume et al., 2010). Consequently, the issue on enhancing the transfer of training has generated significant interest not only in develop countries, but also in developing countries such as in Malaysia, specifically, in manufacturing companies, which are considered the most important sector for the Malaysian economic. So far, educators and practitioners involved in ABC training are still using the conventional training approach, which normally do not properly address the transfer of training issues which leads to costly and time-consuming effort as it fails to deliver the expected result. Therefore, there is a critical need to study the issue related to transfer of ABC training for practicing engineers in order to achieve the desired outcome from the training.

1.2 Need for the Study

Realising the ABC training need for practicing engineers, the next crucial issue is to effectively plan and conduct training. In order to ensure positive transfer is materialised from what has been learned in the classroom to workplace environment, educators and trainers who involve in ABC training require proven methods or empirical supports to guide them. However, in daily practices, most training practitioners are still using conventional training approaches; thus, it

does not properly address the transfer issues. This situation has led to costly and time consuming effort because it unable to deliver the expected result. Based on the present status in training effectiveness, it becomes a greater concern on the need to provide initiatives to improve the transfer of training performance. In addition, there is also a critical need to understand the process of transfer of ABC training, as well as to identify and understand the critical factors that influence the transfer. However, so far, based on researcher's best knowledge, research efforts related to transfer of training aspect of ABC method are virtually non-existence. Instead, most of current and previous ABC studies were concentrated on the area of adoption of ABC in workplace (Krumwiede, 1998; Nurnaha et al., 2005). Since no framework is yet available to date to guide ABC training efforts and to provide valuable help to training practitioners, further study to understand the nature of transfer of ABC training and factors influencing the transfer of ABC training are important areas of research and to fulfill the current gap in the literature. Therefore, there is also a need for a study to construct a good transfer theory on ABC training that undergoes extensive empirical testing and able to provide value to educators and practitioners.

1.3 Problem Statement

A range of studies have been conducted in the last 20 years with regard to understand the nature of transfer of training and factors influence transfer (Cheng & Hampson, 2008; Subedi 2004; Cheng & Ho 2001; Elangovan & Karakowsky 1999), however gaps in literature with regard to the theoretical, practical and methodological aspects of transfer of training research still exist and need to be addressed and further studied.

Theoretical gap

Firstly, despite a wider range of studies have been conducted with regard to understand the nature of transfer of training and factors influence transfer (for example see Cheng & Hampson, 2008; Subedi 2004; Elangovan & Karakowsky

1999), however authors that reviewed the previous studies on transfer agree that the training transfer still remain a problem area of study (Baldwin et al., 2009; Cheng & Hampson, 2008; Burke & Hutchins, 2007). Indeed, research noted that the key components of transfer remain somewhat conflicting as most findings so far were inconsistent, unpredicted and continued to provide mixed results and lacking empirical synthesis (Blume et al., 2010). Thus, a further research is needed in order to reach a complete understanding about the impact on the transfer of training effectiveness in general (Burke & Huchins 2007; Cheng & Ho 2001) as well as for the effectiveness of ABC training programme (Krumwiede, 1998). Secondly, scholars argue on the need of future research specifically to gain better understanding about the process of training and its development such as why, how, and when the overall learning outcomes at individual-level translate into results at organizational-level. For example, research is needed to gain better understanding on how improvement of individual-level attitudes, knowledge and behaviour translate into improved firm-level performance (Chen et al. 2007; Ostroff & Bowen, 2000). Thus, future study could bridge this gap by identifying specific transfer practices used by trainees in organizations and their subsequent results (Blume, et al., 2010; Baldwin et al., 2009). Thirdly, scholars also highlight their concerns on the critical need to understand the practical and application aspects of training and its development processes, which in turn suggest for future research of transfer of training to have a good theory (model) that covers both individual-level learning and its implications to performance at organizational-level (Chen et al., 2007). Indeed, research still considers there is no comprehensive model available that covers all the individual and situated factors that influence training transfer over time (Velda et al., 2007), thus suggests for future research to focus toward a “holistic” model of training transfer and to identify the effects across the different stages of training such as before, during, and after training as that would be valuable for practitioners to design better and effective training programme to organisations (Zhao and Namasivayam, 2009).

Practical Gaps

Firstly, most training practitioners involved in training are still adopting a trial and error approach when providing training. As such, the conventional training approach is not effective as this approach can be tested empirically to measure its outcomes in order to achieve organisational objectives (Cheng and Ho, 2001). Practitioners practically evaluate training outcomes using only a simple evaluation sheet to get feedbacks on trainees' feeling about the course, the materials, the instructors, and the learning environment (Movius, 2008; Phillips and Phillips, 2001). In fact, with regard to local context, small companies in Malaysia put little effort to evaluate training, which mostly reliant on trainees' reaction feedbacks and observations rather than using more effective measurement tools (Hashim, 2001). Moreover, smaller organisations in Malaysia have given low priority on training due to the failing of their management to see direct benefits of specific training. Indeed, the core and vital challenge faced by the local manufacturing organisations is lack resources and the expertise to perform the human resource development responsibilities, thus increases uncertainty and produces ineffective outcomes (Haslinda Abdullah, 2009). Hence, training transfer research that could describe the necessary step between training initiatives and improved performance remains the critical factor to guide practitioners in determining the success of training initiatives (Hutchins, 2009). Secondly, literature related to transfer of training studies have not provided sufficient evidence to training practitioners, which can be used as guidelines in improving employees' training to achieve organisational objectives (Vuuren, de Jong and Seydel, 2007; Subedi 2004). Indeed, training transfer continues to be a problem for organizations seeking to maximize training effectiveness since the findings are often disappointed researchers and training practitioners (Grossman and Salas, 2011). Moreover, most findings of previous studies have such limited information that provide no detail classifications on the subject being trained and the training outcomes, therefore difficult to identify their practical relevance and fail to provide an effective guidance to training practitioners (Blume, et al., 2010). Further critiques were also raised by Giangreco et al. (2010) that argue academic work related to training is far too often isolated from the reality of training practitioners, which in turn cause scholars and practitioners practically ignore each other. The authors acknowledge that even though the findings that

researchers see as ever more advanced, yet most companies just do not appreciate them. According to the authors, the practical gap occurs due to the research findings are hard to access and models developed are not easily understood and applied, thus provide little help to busy practitioners in organisations. Thus, training transfer scholars argue on a pressing need to bridge this practice gap (Hutchins and Burke, 2007).

Methodological Gaps

Firstly, despite of considerable literature that previously reviewed and conducted researches in transfer of training and also provided guidance to the training field, however some researchers argue that most of these works only focused on re-examinations of already identified factors and models of transfer of training. Hence, the findings from these researches have produced little contribution to the new body of knowledge (Brown et al., 2011 and also Cheng and Hampson, 2008). Some authors have showed concern to the research methodologies employed in the field of transfer of training previously, which mostly used quantitative, empirical methodologies. Even though they agreed that the above methods are effective in assessing psychometric properties and causality and statistical relationships (for example see Baldwin and Ford 1988; Burke and Hutchins 2007; Cheng and Hampson 2008), they argue the above researches were lack the ability to explore new relationships (Brown et al., 2011 and Saks, 2000). Indeed, an author noticed on the evidence of over-reliance on quantitative method used in transfer of training study in most literature as has been highlighted in a recent HRDI editorial that states only the small number of qualitative papers in the area exist so far (Rucco, 2010). Secondly, transfer of training studies in the past often used students and/ or conducted under laboratory conditions, thus limit the application of research findings due to environmental inappropriateness (Stansfield & Longenecker 2006). Indeed, the above research design also limits the application of research findings because data gathered under these conditions is very much different from the data collected from organisational settings (Cheng and Ho, 2001). Thirdly, past research investigated training transfer in various ways and developed frameworks that were based mostly on studies in developed countries, however there has been very little research on transfer of training conducted so far in developing countries as only a

small body of literature on employee training exist in the local context such as in Malaysia (Shahril Baharim, 2008). Thus, research on the transfer of training that used participants in the local context (i.e. practicing engineers in manufacturing organisations in Malaysia) will advance the research in training transfer.

Bridging the gaps in research

In considering to the need to provide training solutions to equip practicing engineers in manufacturing companies with ABC competency as well as the need to bridge gaps mentioned in the above paragraphs, there is a need for a study on the transfer of training that focus on a specific ABC implementation, which clarify the defined contents and training outcomes that employed in the local manufacturing organisations, where the findings may have practical relevance to the local context, which can effectively guide practitioners in determining the success of the training initiatives to ensure knowledge gained from the training have impact on improved performance and achieve organisational objectives. Hence, the current study is focused on the following premise:

“In order to prevent or at least avoid the problem of lack of transfer of ABC, educators, practitioners and human resource personals need better understanding regarding the process of transfer of ABC training that could successfully guide them in planning and implementing the transfer of ABC training for practicing engineers throughout the training transfer process.”

Guiding by the above statement, the current study intends to explore the transfer process and factors influence the transfer of ABC training using a qualitative grounded theory research method. The study also intents to develop a substantive theory of training transfer, which is grounded in data of trainees' experience of transfer of ABC training. Subsequently, this study intends to develop a model of the transfer of ABC training that is practical and able to guide practitioners to improve the level of transfer of ABC training programme in workplaces.

1.4 Objective of the Study

There are basically four areas of transfer of training research, which could be summarised into four major areas of study; (1) methodology and measurement of transfer, (2) what and how do factors influence transfer, (3) development of conceptual model for organising knowledge about transfer, and (4) development of educational technology solutions for transfer. In this study, researcher tried to integrate the first three areas of transfer of training research; describing transfer process, understanding factors influencing transfer and developing framework of transfer of ABC training. The general objectives of this study were (1) to explore experiences of trainees on transfer of Activity-based Costing (ABC) training; and (2) to understand factors that influence the transfer of ABC training for practicing engineers of manufacturing companies who have attended the ABC training programme. In conducting this study, researcher has developed four specific research objectives as follow:

- (1) to explore and describe experiences of trainees on transfer of ABC training for practicing engineers of manufacturing companies who have attended the ABC training programme;
- (2) to understand and describe how individual factors of trainees influence the transfer of ABC training for practicing engineers of manufacturing companies who have attended the ABC training programme;
- (3) to construct a substantive theory of transfer of ABC training that describes experiences of trainees on transfer of training and factors influencing the transfer of ABC training for practicing engineers of manufacturing companies who have attended the ABC training programme and
- (4) to develop a model of transfer of ABC training that is practical and able to guide practitioners on the transfer of ABC training in workplaces.

1.5 Research Questions

In order to answer the problem statement and achieve the objective of this study, four research questions were identified as follows:

1. How do trainees undergone experience of transfer of ABC training for practicing engineers of manufacturing companies who have attended the ABC's training programme?
2. How do trainees' factors influence the transfer of ABC training for practicing engineers of manufacturing companies who have attended the ABC's training programme?
3. How does a substantive theory explain the experiences of transfer of training and factors influencing the transfer of ABC training for practicing engineers of manufacturing companies who have attended the ABC's training programme?
4. How does a model describe the experience of transfer of ABC training for practicing engineers who have attended the ABC's training programme guides the training practitioners to the successful transfer of training?

As a mean of identifying some of the factors influencing transfer of ABC training, this study has brought brief discussions to provide a better understanding of the transfer issues. The study viewed the transfer of training issues from the lens of individual factors that influence transfer. Firstly, it used the basic transfer of training model developed by Baldwin and Ford (1998). The approach was aimed to obtain an understanding of the phenomena of transfer, as it relate specifically to transfer of ABC training and factors influences transfer of ABC training. Hence, purpose of this study was to investigate the experience of transfer of ABC training for practicing engineers at each stage of the transfer progression that occurs in manufacturing work environment. The study was also aimed to investigate the factors influencing the transfer of ABC training at each stage of the transfer progress. The study has acknowledged the issues and problems related the transfer mentioned in literature. Thus, the outcome of the study has brought a better understanding to issues and problems related to the transfer of ABC

training. It provided discussions on the findings of the study and also presented some conclusions and recommendations.

In this study, researcher has employed a qualitative grounded theory approach, where data were gathered through interviews, observations, and related document analysis and considered as the primary data source. The interview data obtained through either personal or face to face interviews and through email/web exchanges. Observational data were also included as part of the grounded theory approach and then analysed in the same manner. The data were obtained through researcher's interaction with practicing engineers during and after ABC training and were recorded as field notes that described the nature of actions or activities performed by them. For the purpose of this study, all data were held strictly confidential and when directly referred, the data would be cited as anonymous. At the final stage of analysis, grounded theory approach also utilises existing literature, which was beyond the normal review of literature, as a part of the overall analysis, which was aimed to look for emergence themes that might lead to answer the research questions. The approach of data collection that has made up the grounded theory method will be discussed in more details in Chapter 3.

1.6 Expected Outcomes

For the initial work of the study, a conceptual framework was constructed which integrates factors that influence transfer of training which was based on previous study. The basic component of this framework was based on Ford and Baldwin transfer of training model (Baldwin and Ford, 1988), Haskell's taxonomies of transfer of learning (Calais, 2006) and Activity-Based Costing implementation framework (Krumwiede, 1998). Accordingly, using the conceptual framework that has been constructed, the study investigated the influence of individual trainee factors on the transfer of ABC training using qualitative research methodology. The study aimed to explore how research participants act and react, take actions or engage in process of transfer of training

that they attended, as well as to identify and describe what and how individual trainee factors influence the transfer of training for practicing engineers in manufacturing companies. The result of the study has uncovered meanings that trainees assigned to their experiences and how did trainees' factors influence the transfer process as the trainees went through to transfer what they learned from ABC training to their workplaces. Thus, the outcomes of the study are expected to extend the body of knowledge of transfer of training by using a qualitative grounded theory study which potentially can identify new components and factors of training transfer as most of previous studies were dominated by quantitative methods or focused on examining factors and models already identified (Brown et al., 2011 and Cheng and Hampson, 2008). It is also expected to add another dimension to the current literature on ABC studies to utilise for an academic instruction or for research area which aims to understand the training transfer phenomenon (Calais, 2006). Even-though this exploratory study has focused on a small group of participants in order to provide in-depth findings for the chosen study setting, yet the findings may have a wider implication as it is transferable to other similar setting, such as in other types of companies. Thus, the findings are expected to provide a practical guide for educators, training practitioners and human resource personals on planning and implementing trainings that are able to produce a better transfer of training results, specifically to the ABC training programme for practicing engineers in manufacturing organisations.

1.7 Significance of the Study

The result of this study contributes in adding another dimension (i.e. transfer of training aspect) to the current literature on ABC studies. In addition, the outcomes of the study may extend the body of knowledge of the transfer of training with respect to transfer of training for technical training area such in the case of this study, which is considered very much limited (Stansfield & Longenecker 2006). The findings from this study may have a wider implication that could be transferable to other types of companies that have similar setting to

this study. Thus, the model developed based on the findings in this study are expected to provide valuable guides for educators, practitioners and human resource personals on planning and implementing training programme that is able to produce a better transfer of training results, specifically to ABC training for practicing engineers in manufacturing organisations.

1.8 Focus and Scope of the Study

The focus of study was to investigate the transfer of training and factors influencing transfer, however limited to individual trainees' factors which are believed to be major factors influencing the transfer of training (Burke and Hutchins, 2007; Colquitt et al., 2000). Within limited time and resource, the inclusion of other training transfer factors would further complicate the model to be developed; thus they were excluded from of this study. Moreover, although individual trainees' factors have been known to influence transfer, the role of its key variables in affecting transfer is still unclear and received relatively little research work (Elangovan and Karakowsky, 1999). Therefore, by examining the relevant literature on factors influencing transfer of training as well as factors influencing ABC implementation, it has helped to guide the initial stage of this study. Then, the study has proceeded in the direction to discover and provide a better understanding on the experience of transfer of ABC training and factors influencing the transfer of ABC training.

1.9 Definition of Terms

Activity Based Costing

Activity Based Costing (ABC) is a costing model that identifies activities in an organisation and assigns the cost of activity resource to all products and services according to the actual consumption by each: it assigns more indirect cost

(overhead) into direct cost (Cooper, 1988). From the process perspective, ABC identifies overhead costs with homogeneous activity-based cost pools where these pooled costs are then charged to products using measures of activities its consumed. The study adopt definition by the Consortium of Advanced Manufacturing-International (CAM-I) which defined ABC as a methodology that measures the cost and performance of cost objects, cost objects that consumes activities and activities that consumes resources (Coopers, 1988).

Practicing Engineers

Practicing engineers in manufacturing companies is defined as the technical persons who have engineering degree or specific technical knowledge and skill, given responsibility or authority to make operational decision on implementation of a specific task, project, or programme. They are accountable for the results of their units, sections or departments they work. (Chang, 2005) classifies engineers' job into four dimensions, work with subordinates, manage their subordinates, coordinate their own management action and with other engineers and peer groups. The researcher defines practicing engineers as the technical persons who have engineering degree or have a specific technical knowledge and skill related to manufacturing operation or are given responsibility or authority to make operational decision on implementation of a specific task, project, or programme, and are accountable for the results of their units, sections or departments they were assigned (e.g. manufacturing executives).

Training

Training is defined as a process that aims to improve knowledge, skills, attitudes, and/or behaviors in a person to accomplish a specific job task or goal. Training often focuses on business needs and driven by time-critical business skills and knowledge, and its goal is often to improve performance (Leisersen, 2003).

Transfer of Training

Transfer of training is defined as “the application of knowledge, skills, and attitudes learned from training on the job and subsequent maintenance of them

over a certain period of time” (Baldwin and Ford, 1998). The term of transfer of training are sometimes used interchangeably with transfer of learning in most literature, but transfer of learning is normally used to illustrate more from a knowledge base and generic competencies. However, both terms relate to learning and originate from the domain of pedagogical psychology (Subedi, 2004). The training evaluation phases that proposed by Donald L. Kirkpatrick as a way to evaluate training programme. It can be used to measure the transfer of training and should be followed by the measurement of trainees’ reaction, learning, behaviour change and results (Kirkpatrick, 1998). Transfer of training factors includes various training inputs (a) individual factors e.g. ability and motivation (b) the organisational factors e.g. work environment and learning culture, and (c) contextual factors related to ABC implementation.

Factors Influence Transfer of Training

Individual factors or characteristics were considered as factors influencing training transfer, defines in terms of ability, personality, self efficacy, motivation, perceived training design and perceived organizational commitment (Burke & Hutchins, 2007; Baldwin & Ford, 1980). Work environment factors was viewed from individual perspective, defined as perceived transfer climate and considered as individual factors that influence transfer of training. The factors are related to four areas; job characteristics such as perceived opportunity to practice and refine the training, social network (e.g. perceived positive or perceived support from managers or peers to use the knowledge and skills), perceived appraisal and reward systems that link to training performance and perceived organisation learning culture with provide learning opportunities (e.g. mentoring programme, apprenticeships and support for external professional development activities).

1.10 Thesis Structure

Overall, this thesis structure consists of six chapters. Chapter 1 discussed the background and the need for the study. It described the problem statement

and provided the related research questions to be answered in this study. Using the conceptual framework, which will be discussed in chapter 2, this thesis has stated the general objective of the study, which was to explore experiences of trainees on transfer of Activity-based Costing (ABC) training and to understand factors that influence the transfer of ABC training for practicing engineers of manufacturing companies. Chapter 1 ended with discussions on the expected outcomes and its significance to the knowledge community in general.

Chapter 2 reviews the literature on Activity-Based Costing and transfer of training studies. It provides the brief descriptions on major transfer of training models, which have been referred by researchers in transfer of training studies. The chapter ends with the construction of a conceptual framework to guide the initial data gathering and analysis in this study.

Chapter 3 discusses the methodology of research which was employed in this study. It describes the grounded theory approach used in this study for data gathering and analysis. It also explains the data collection method used in this study involving interviews, observations and inspection of related documents from practicing engineers participating in ABC training. The chapter explains constant comparison method used in analysis of data that allowed researcher expanded and developed of specific coding themes. The method lead to the continual development of a substantive theory through additional data collection and ended when the study reached a saturation point (i.e. where there were diminishing returns in the examination of new data within specific categories). The chapter also discusses the combined approaches of inductive, at the beginning stage and deductive, at the later stage of the study. The approaches have allowed the emergence of concepts that used to construct the model of transfer of ABC training as the final outcome of this study. The chapter also emphasises on various strategies and the triangulation of data, which are required to be performed in grounded theory method in order to gain trustworthiness of the findings. The chapter ends by providing an operational framework that summarised the flowchart of overall research process of the study.

Chapter 4 presents the details analysis of data and summarises the results of the study. Using qualitative research methodology, researcher has explored how research participant acted and reacted, took actions or engaged in process of transfer of training received by them. The chapter also explains on factors that have influenced the transfer of ABC training for practicing engineers in manufacturing companies. Then, it finalised the outcomes of the study, which were determined upon the results at the saturation point of data analysis. The chapter ends with the summary of uncovered meanings that trainees assigned to their experiences and factors influenced the transfer process for trainees who have attended ABC training.

Chapter 5 provides the discussions of the results. It links and compares the result obtained in this study with other studies mentioned in literature. It aims to evaluate and explain the findings of the study. Then, it presents the final document in a narrative presentation, with the addition of diagrams to help researcher explains and concludes the findings. Finally, Chapter 6 concludes the study and provides reflections to the overall works of the study. It also recommends important issues that need to be addressed in the future study with regards to the findings of this study.

CHAPTER 2

LITERATURE REVIEW

2.1 Overview

This chapter starts with a highlight and describes some of important issues related to the implementation of ABC in manufacturing companies and the need of ABC training efforts to support its implementation effectively. The chapter also highlights some challenges faced by educators, training practitioners and human resource personals on the problem of transfer of training. Using this issue as starting point, the chapter analyses currents literature on transfer of training including a few transfer of training models and finally provides a conceptual framework to be used as a road map or direction to guide this study.

2.2 Activity-Based Costing and ABC Training

2.2.1 Activity-Based Costing

Activity-Based Costing (ABC) is referred to a costing method, which was developed by Kaplan and Cooper in the early 1980's (Coopers, 1988). ABC is a method that firstly assigns costs to measure the costs of activities and followed by the costs of product which is calculated based on the usage of activities by each product (Cooper, 1988). The method was developed as an alternative to traditional

costing method to determine the costs of products. The method is able to provide better and more accurate financial information, (i.e. those related to cost estimation, process or activity costing, customer profitability and establishment). ABC method can thus refer to either process (i.e. those efforts to improve establishment accuracy) or/and results (i.e. process improvement tool).

The definition of ABC provided by the Consortium of Advanced Manufacturing-International (CAM-I) is a methodology that measures the cost and performance of cost objects, activities and resources (CAM-I, 2010). It means the cost objects consume activities and activities consume resources. Resource costs are assigned to activities based on their use of those resources, and activity costs are reassigned to cost objects (outputs) based on the cost objects' proportional use of those activities. ABC incorporates causal relationships between cost objects and activities and between activities and resource. Using the process perspective, Goldstein (1986) provides another description on ABC as the method which traces costs to products and services in two steps or distinct levels; (1) overhead costs are identified with homogeneous activity-based cost pools and (2) pooled costs are applied to products using measures of activities consumed.

ABC enables the organisations to calculate the unit costs of output which the combination of internal and external (i.e. the cost of end-products, the cost of standard services or customer orders or special customer services). Using ABC, companies can examine the cost of an activity on the basis of both the absolute costs and per unit of output cost. Companies can make relative cost comparison between and among identical activities or on the basis of a per-unit-of-work for different kinds of outputs. The method also allows organisations to truly learn about their cost structure (Siriwardane, 1994). Organisations which employed ABC method are able to identify where to remove waste, low-value added costs and unused capacity. They also could understand what activities drive their costs through establishing cost drivers for each activity cost pool. The cost driver, such as the number of persons performing work or the number of setups required per product reflects the consumption of activities by the products. By identifying cost of various activities performed, it is easy to see and plan changes in resource

requirements for each activity.

ABC can be considered is an alternative to conventional costing method. The conventional method has flawed because it inaccurately allocate overhead to products that contributes to over-costing (i.e. for large batches, less complex and high-volume product products) and under-costing (i.e. for small batches, more complex and low volume products) (Albright and Lam 2006). ABC also is an information system that can provide financial and non-financial information. It can measure the cost of each activity in production and in supporting activities to produce and deliver of the product to customers (Sohal and Chung, 1998). Thus, companies which implement ABC method gains advantages such as in helping them to estimate product costs with more accuracy and improve their operational performance (Gunasekaran, 1999). In addition to the above benefits, implementing ABC can initiate transformation in a firm which relates to behaviour, values, skills and relationships in organisation. Those extra benefits will lead to the improved abilities of teams to carry out operational processes and achieve desired results in a long run. However, the specific purposes to implement ABC system differ according to the objective of each company. Therefore, it is up to the organisation to evaluate their success of implementation of ABC (Nurnaha et al., 2005). Literature listed more than fifteen benefits which can be obtained from the implementation of ABC (Chongruksut, 2002). Among of those benefits are more accurate product/service mix, assistance in cost reduction or cost control improvement efforts, better performance measurement and increased customer satisfaction.

However, to this date, unfortunately, the design and development accounting system has often remained largely within the domain of accountants. Accordingly, the implementation of ABC systems has in most cases been focused in a narrow range of applications that is to provide financial reporting data which has been the main concern of accountants. The effort to implement ABC for non-financial purpose such as for process improvement methodology has not been very widely accepted. Therefore, many benefits listed in literature were not fully understood by most companies due to the problems and barriers they encountered

during the implementation phase. In relation to this fact, most companies are not able to exploit the advantages from ABC implementation.

Literature too acknowledges the great interest on study related to reasons for ABC adoption and the success factors of ABC implementation in organisations, especially for manufacturing firms. In a study conducted by Maelah and Ibrahim (2007), which involved public and multi-national manufacturing companies in Malaysia, the author found a positive relationship between organisation support and the usefulness of ABC information for managerial decision to the adoption of ABC. In another study conducted by Sartorius et al. (2007) involving ABC consultants, ABC firms and non-ABC adopters, the author identified barriers to ABC implementation, such as lack of management support, data gathering difficulties, high implementation costs and lack of ABC skills and also misconception about the use of ABC. Indeed, Cohen et al. (2005) and also Alsaeed (2005) argue that the non-ABC adopters seem to satisfy with their conventional systems. There were studies that have focused on examining the criteria for successful ABC implementation. Such studies were by Baired et al. (2007) and also by Lana and Fei (2007) that examined the success factors at the ABC implementation phase and factors pertinent to ABC implementation, respectively. Another study conducted by Mohammed and Colin (2007), who examined factors affecting the adoption and the extent of success of ABC systems. In relation to factors influencing ABC implementation, top management supports, organisational structure and organisation commitments were found to influence ABC implementation success (Lana and Fei, 2007). Top management support, non-accounting ownership, adequate training were also found as important factors for the ABC success (Muhammed and Colin, 2007).

The first step for implementation of ABC is by conducting ABC seminar and training for members of the operation team. The objectives are to introduce the concepts and benefits of ABC, to discuss suitability for an activity-based system implementation and requirements for its members. Before deciding to implement ABC, it is suggested that a company should start to identify their objectives and requirements, evaluate their resources availability and then develop schedule for the

implementation stages and choose the project champion. For implementation team, the training is to educate them concerning the concepts of ABC and to ensure that they understand the implications of the decisions to implement ABC. The technical skills needed are to design ABC system and method of data gathering to input into ABC system. In implementing Activity-Based Costing in a manufacturing company, production data is broken down into direct material and direct labour standards, and followed by the identifying overhead, which is analysed by interviewing the process owners. The interviews are meant to; (i) identify the major activities performed in the facility, (ii) determine the cost of those activities, (iii) Identify what drives those activities, (iv) determine the qualities of each cost driver associated with every product and (v) compute activity-based product costs. Finally, the important step of the ABC implementation is to train managers, engineers to analyse the results and interpret the outcomes.

The outcomes of ABC implementation include product and activity costs and also report of suggested actions to be taken. In providing suggestions for actions, the engineers responsible begin an analysis of the critical activities of selected product costs that followed by suggested actions to improve the production process, eliminate non-value added process in order to reduce or improve cost control performance. Regarding to the use of ABC results, literature also identify that a more extensive use of ABC may lead to greater successful in ABC implementation. The use of ABC includes for assisting in process improvements, for product costing and pricing strategy and also to analyse customer profitability (Krumwiede 1998 and Nassar et al. 2009). In addition, the impact of firms' perceptions on ABC benefits plays greater role in predicting the overall success of ABC implementation. Such perceptions include perceiving ABC as the effective tools to provide strategic cost allocation and also to increase in firms' efficiency and effectiveness (Zaman, 2009).

Despite of many advantages that can be derived from ABC implementation, companies encounter various problems and barriers during the ABC implementation. Among the challenges faced by companies are great deals of work as ABC system required work-intensive capabilities (Stapleton et al., 2004). ABC

may take up a lot of time due to the lengthy procedures in ABC system, especially time for adjustment and conditioning (Stapleton et al., 2004). Indeed, a great deal of time is needed to retraining the accountants and the computer staffs, which are considered the most common problems faced by companies at the early period of implementing ABC (Sohal and Chung, 1998). Other related challenges to training are the problems with the choice of activities, selection of cost drivers, and how to link cost drivers with individual product (Chen, 1996). In addition, resources scarcity is also another challenge in implementing ABC since many competing projects, which may have higher priority than ABC project (Sohal, and Chung, 1998). Furthermore, ABC implementation sometimes requires a change to the organisational structure, therefore, the issue of lacking of top management support may affects ABC implementation success (Sohal and Chung, 1998). Since many of the problems stated above can be related to the lack of ABC knowledge and skills in-house, therefore, a considerable amount of education and training on ABC has to be undertaken by organisations. Furthermore, the training on installing and maintaining ABC system to companies' staffs should be on-going initiative throughout the stages of planning and implementation (Sohal and Chung, 1998). Fortunately, in the effort to support the implementation process, an improved method of ABC analysis is introduced recently, called Time-Driven Activity-Based Costing (TDABC), which claims to be an easier and more powerful approach and can significantly reduce the implementation difficulties (Kaplan and Anderson, 2007).

There are many critical success factors identified in literature for the success of ABC implementation. The factors include; top management support and their involvement in overcoming resistance or fear amongst some employees (Sohal and Chung, 1998), adequate resources in design, implementation and operation stages (Gunasekaran, 1999), use of ABC as a competitive strategy tool (Nolan, 2004) and communication between the implementation team and the rest of the company's staffs, especially the end users of the system (Gunasekaran, 1999). Finally, education and training factor are extremely crucial for the ABC team members that are assigned to implement ABC project. They should be trained in the design and operation of an ABC system, which require them to; (i) making the choice of cost

pools, (ii) selecting of means of distributing overhead costs to the cost pools, and (iii) making the choice of cost driver for each cost pool (Sohal and Chung, 1998). The team member should also be trained to prepare and plan to obtain information related to activities, cost drivers, and flowcharts of processes. It is also important that the implementation team to be exposed to the application of ABC data base that is used to collect data, perform calculations and analysis (Londe and Ginter, 1999).

2.2.2 ABC Training for Practicing Engineers in Manufacturing Companies

A few areas related of manufacturing such as productivity, cost and quality are critical to engineers and engineering profession in manufacturing organisation. Specifically stated, the roles of engineers and engineering profession in manufacturing organisations are normally at the operational level. Those roles include; (a) administrative work involving operation staffs such as employment, rank advancement and resignation, (b) task related to accounting such as budgeting, procurement and inventory, (c) physical plant operation such as maintenance and renovation, (d) develop a training system for their subordinates and (e) staffs welfare (Chang, 2005). According to the author, in order to ensure engineers perform these duties effectively in defining, monitoring and controlling manufacturing cost, they need to be trained on procedure to implementation ABC as an improvement tool, so they can learn and also effectively transfer the training. Indeed, there are areas related to management functions considered as the responsibility of engineers. Furthermore, management, according to Malaysian Institute of Management (MIM, 1999) refers to a group of managers at various levels, started with the chief executive officer of the company and goes down to functional manager, department, section head and group leader. In most companies, management's levels can be categorised as top management, middle management and first-line supervisors. The top management concerned with the vision and the long-term objectives of the company, while middle management generally involved in planning, control and organising resources, besides attending to meetings, paperwork, reports and so on. The lowest level of managerial work is line leaders or

supervisors, responsible for specific teams or the lowest level of work groups, namely 'operator'. Engineers normally work in middle or lower management. They provide the bridging role between top management and their subordinates. Engineers also involve in planning and decision making at the operational level. Therefore, to be effective and efficient managers, engineers should have suitable managerial knowledge and skills. They should also learn skills such as time management, work habits, people-related skills and especially the use of decision support tools as ABC method. Indeed, regarding to the use of the tool, Chang (2005) strongly suggests the need for engineers to learn and to be trained to practice ABC in their workplace. To quote his words;

“All engineers should learn to practice ABC, because the traditional method of allocating overhead uses only high-level information about costs, and the general ledger system does not provide information related to time and resources spent on assignments and activities. In contrast, a well-practiced ABC method offers specific insight that include; (a) a clearer picture for management of what generates profits and losses for companies, (b) the ability to tract operating profits for specific cost objects (such as customers, orders, and products), (c) the ability to determine whether a service centre is efficient or deficient, and (d) the possibility to externalise the relative profitability among products and customers”.

2.3 Transfer of Training

In this study, researcher borrows the HRD definition of transfer of training which defines transfer as “the degree to which trainees effectively apply the knowledge, skills, and attitudes gained in the training context to the job and subsequent maintenance of them over a certain period of time (Baldwin and Ford, 1988). On the other hand, literature also uses transfer of learning interchangeable with transfer of training. The transfer of learning illustrates more from a knowledge base and generic competencies; however both terms relate to learning and originate

from the domain of pedagogical psychology (Subedi, 2004). Therefore, for the purpose of this discussion, researcher assumes that both terms do not mean any fundamental difference. Thus, learning the new knowledge and skill of work-related contents is the prerequisite of transfer of training. Holton (2005) states that training practitioners and researchers have acknowledged that successful transfer of training into workplace can lead to an improvement in the trainee's job performance.

Training for organisations and consequently the transfer of training have been important agendas to organisations worldwide. Indeed, the 2010 Industry Report published by the American Society for Training and Development (ASTD, 2010) states that the United States organisations spent about USD 125.88 billion in year 2009 for training and development of their employees. In Malaysia, the report of the Ninth Malaysia Plan 2006-2010 reveals that Government of Malaysia (2005) allocated about RM45,149.1 million for benefits associated with training as identified by the Ministry of Human Resources for Training and Development Plan. The training related budget allocated in the Ninth Malaysia Plan shows an increase of 6.6 per cent as compared to the Eighth Malaysian Plan 2001-2005 (Economic Planning Unit, 2001).

2.3.1 Problems on Transfer of Training

Literature strongly agrees that training transfer is a problematic and unsolved issue. Indeed, most studies show that many trainees do not actually transfer their training into workplaces. According to Baldwin et al. (2009) and Hutchins (2009), training transfer literature emphasises that the successful transfer of training into workplace is often limited. Furthermore, the authors also state that about 10 per cent to 50 per cent of skills learned during training are transferred into workplace. In addition, Nga Pham et al. (2010) estimates about 62% of trainees transferred what they learned from training immediately after attending a training programme, however and only 44% do transfer them after six months. In relation to

these problems, Salas and Cannon-Bowers (2001) urges the important for organisations to know how trainees transfer the training programme into workplaces. Aguinis and Kraiger (2009) also states that organisation also wants to know the extent of transfer of training on the job and also the maintenance of the learned contents.

Literature on transfer of training mostly can be traced to Human Resource and Development (HRD) discipline. According to Broad and Newstrom (1992), “either HRD model or the more academic instructional model is still lacking a research base and therefore also restricted”. Furthermore, up to the last decade, Calais (2006) quoted that Haskell points out that “transfer of training study is virtually non-existent particularly in academic instruction or in research which aimed to understand transfer phenomenon as well in identifying factors to facilitate transfer”. Similarly, other authors also agree with the above statement and they further confirm that research determining how factors affect the transfer of training remains limited and where it has been conducted, methodologies have differed (Lim and Morris, 2006 and Wanjiku et al., 2010). Indeed, less researched in training transfer were conducted in organisations from developing countries as compared to organisations from developed countries. Therefore, literature urges on the need for studies that focus on organisations from developing countries, as the outcomes from such studies could provide unique results and significant implications (Sofu, 2007 and Wanjiku et al., 2010). In short, researchers and practitioners should put great efforts to understand the transfer issues and factors influence it and incorporate them in planning and conducting training to ensure the successful transfer into workplaces (Raja Suzana and Sharriffah Ali, 2011).

2.3.2 Model of Transfer of Training

The basic model of transfer of training that mostly quoted in literature was developed by Baldwin and Ford (1988) as shown in Figure 2.1. The model is based upon research in the behavioural sciences on the area of adult education and personnel administration. The author views transfer of training as a system that

consists of; (1) training inputs– trainee characteristics, training design and work environment, (2) training outputs– learning and retention of the training and (3) conditions of transfer– generalisation and maintenance of the transfer behaviour.

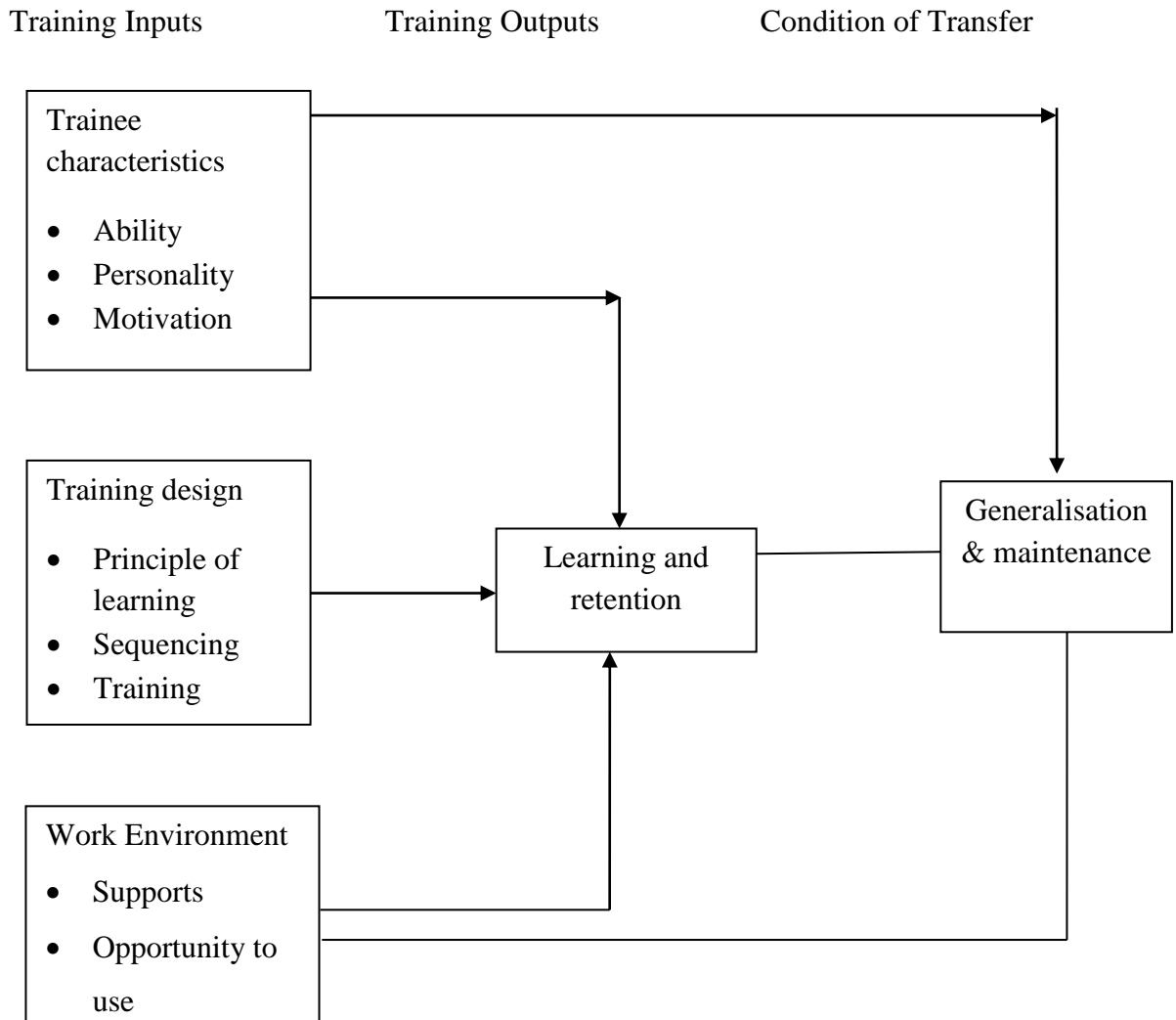


Figure 2.1 Baldwin and Ford’s model of the transfer of training process (Baldwin and Ford, 1988).

Baldwin and Ford (1988) model has examined the basic three training input factors; characteristics of the trainee, the training programme and the work environment. Those factors may influence the extent of transfer of learning to the work environment. The model may also provides insights into identifying and understanding the relationship of these factors, which may supports or creates

barriers to the transfer of training. However, the model does not clearly describe the nature of transfer in details. Another training framework is called Kirkpatrick's Four Level of training evaluation (Kirkpatrick, 1976; 1998), as shown in Figure 2.2. The framework describes training evaluation into; (1) reaction, (2) knowledge gained or skills acquired, (3) behavioural change and (4) results (Kirkpatrick, 1976, 1998). However, the framework is viewed more toward providing taxonomy of training assessment rather than training transfer model. In contrast, an alternative model that was developed by Holton, called Learning Transfer System Inventory (LTSI) as shown in Figure 2.3 is claimed to better describe the transfer of training (Holton, 1996 and Holton et al., 2000). The author also argues the model as more comprehensive as compared to the previous models developed by authors in the field of transfer of training, because it covers many aspects that are not mentioned in the previous model.

Haskell's transfer of learning taxonomy is another transfer of learning framework which was developed using the educational approach. The framework provides more descriptions of types of knowledge in learning and transfer. The framework consists of two taxonomies for transfer of learning; (1) to inform us when, how, and where transfer occurs using six levels of transfer – nonspecific, application, context, near, far and creative transfer and (2) to inform us five difference types of cognitive knowledge being transferred – declarative, procedural, strategic, conditional, and theoretical knowledge. In addition, the framework has fourteen specific kinds of transfer such as; content-to-content, procedural-to-procedural, declarative-to-procedural, procedural-to-declarative, strategic, conditional, theoretical, general (nonspecific), literal, vertical, lateral, reverse, proportional and relational transfer (Calais, 2006). In contrast, many other transfer of training models mostly less comprehensive and only cover a certain part of transfer components. A hypothesized model shown in Figure 2.4 is one of the examples of the less comprehensive model of transfer of training (Switzer et al., 2005).

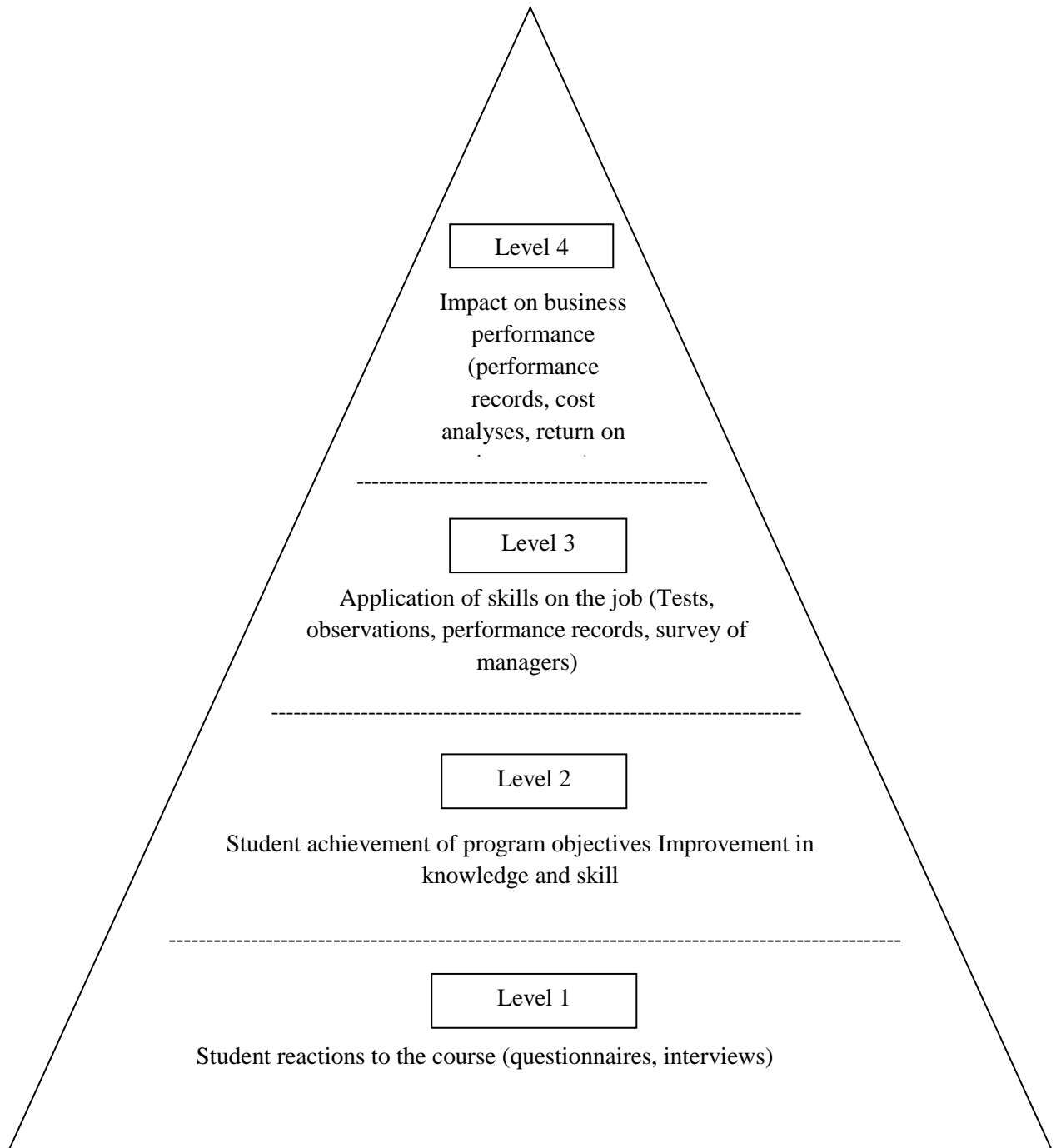


Figure 2.2 Kirkpatrick's levels of training evaluation (Kirkpatrick, 1976; 1998)

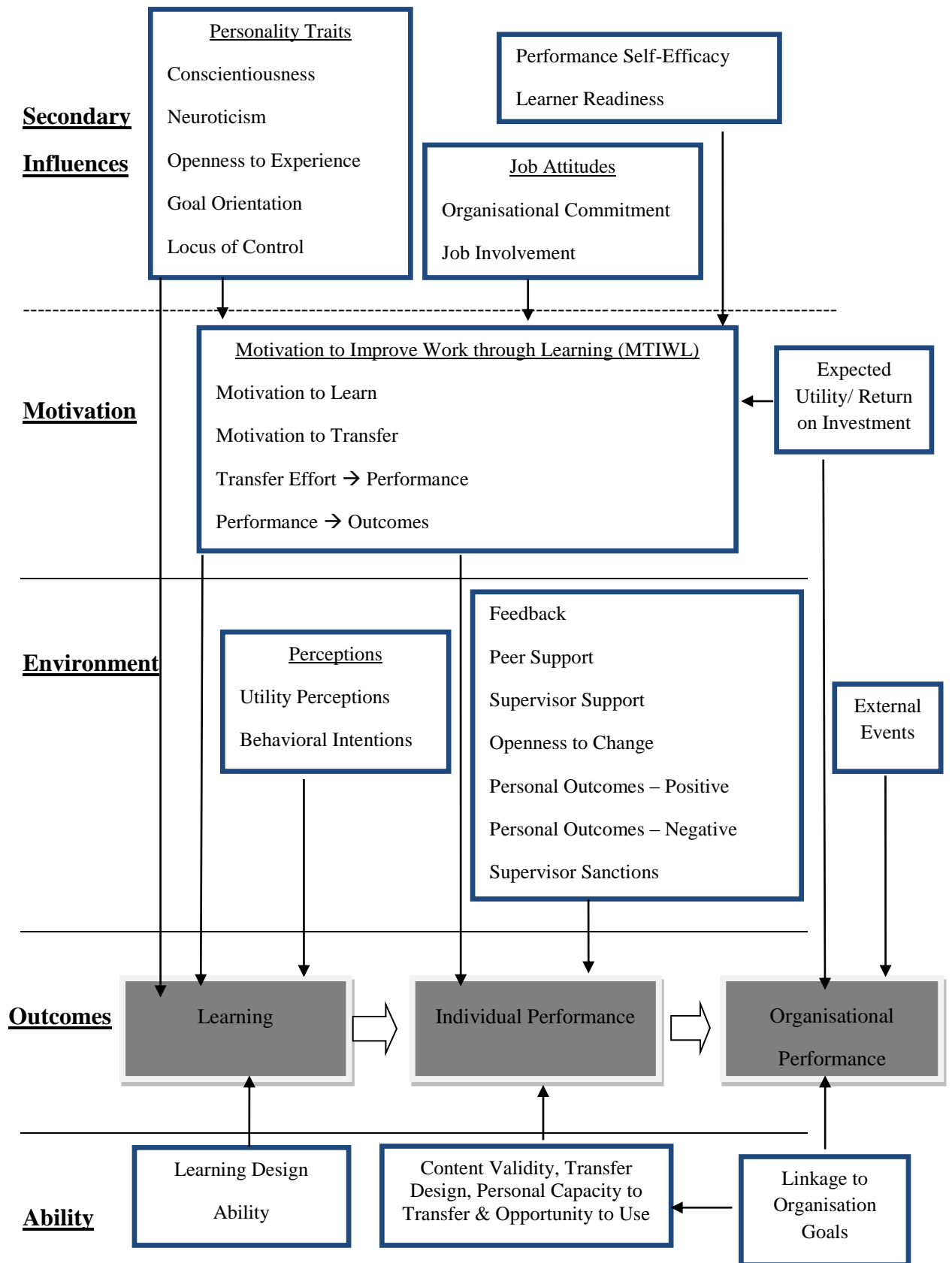


Figure 2.3 Learning Transfer System Inventory (Holton, 1996; Holton et al., 2000)

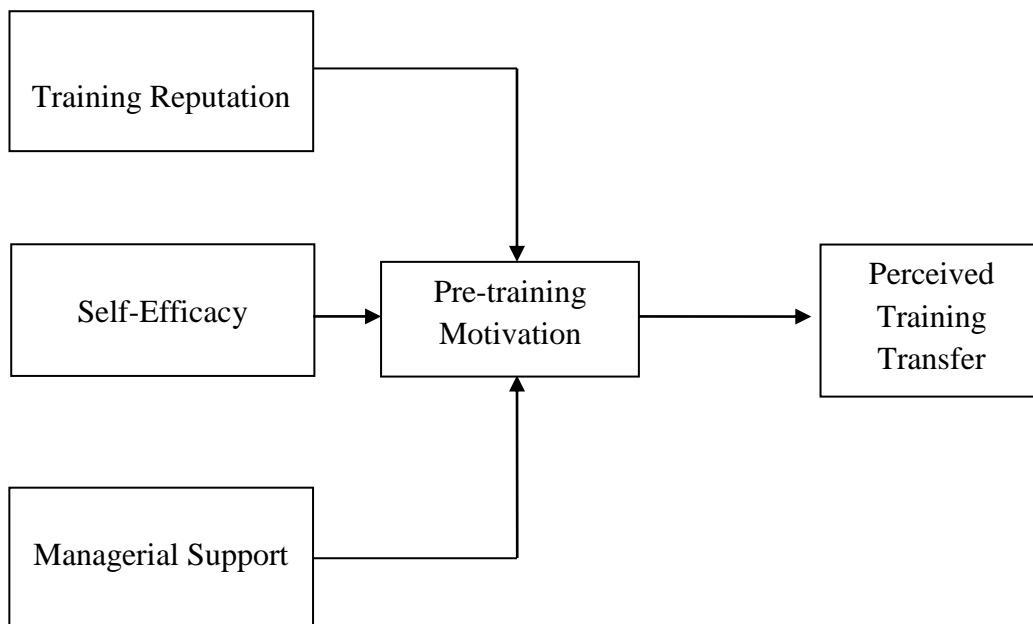


Figure 2.4 A hypothesized model of transfer of training (Switzer et al., 2005)

2.4 Transfer of ABC Training

Literature related ABC research less emphasises on the education perspective, specifically on transfer of training issues. Most literature so far focuses more into the area of ABC implementation and diffusion studies (Cooper and Zmud, 1990). However, looking from ABC perspective, the issue of learning from ABC training may be related to trainee clearly understands the objectives and method to implement ABC (Sohal and Chung, 1998). Learning also means trainees' ability to understand and develop skills on how the ABC system works (Londe and Ginter, 1999). The use of knowledge and skill learned from ABC training to workplace may be described using the existing framework of ABC implementation, which describes the process in six basic steps – initiation, adoption, adaptation, acceptance, reutilisation and infusion. It may also be extended into a more refined framework that breaks up the diffusion process into ten stages (Krumwiede, 1998). For example, maintenance of transfer of ABC training can be viewed as to keep the ABC costs data up to-date and to monitor ABC project through evaluation of ABC project progress from time to time (Chan, 2000). Maintenance can also be viewed

as the trainee does regularly review as any changes take place within the organisation and in the marketplace (Sohal and Chung, 1998). Furthermore, Haskell's framework that consists of two taxonomies for transfer of learning can also provides much more detail explanations, especially in Haskell's first taxonomy that has six levels of transfer – nonspecific, application, context, near, far and creative transfer is able to explain on when, how, and where transfer occurs (Calais, 2006).

Inferring to transfer of training model as described by Baldwin and Ford (1988), level 1 to level 3 (i.e. nonspecific, application and context transfer in Haskell's taxonomy) can be classified only as the training output (i.e. learning or initial application of learning and retention). Then, level 4 to level 6 (i.e. near, far and creative transfer in Haskell's taxonomy) may be considered as the condition of transfer (i.e. generalisation and maintenance). The second taxonomy is to inform us on five difference types of cognitive knowledge being transferred (i.e. declarative, procedural, strategic, conditional, and theoretical knowledge) and also fourteen specific kinds of transfer involved (i.e. content-to-content, procedural-to-procedural, declarative-to-procedural, procedural-to-declarative, strategic, conditional, theoretical, general or nonspecific, literal, vertical, lateral, reverse, proportional and relational transfers) (Calais, 2006). Similarly, to infer Baldwin and Ford's model of transfer of training, declarative knowledge is essential for learning to occur, while the rest (i.e. procedural, strategic, conditional, and theoretical knowledge) all are needed to facilitate transfer. Using Haskell's taxonomies, the process of transfer of ABC training could be described through identifying transfer status that can be related to steps of application and progress as described by ABC framework.

2.4.1 Factors Influencing Transfer of Training

In the last two decades, a few reviews on factors influence the transfer of training into workplace were made, such as by Baldwin and Ford (1988), (Baldwin

et al., 2009) and the recent one was by (Blume et al., 2010). Literature states that there are three categories of factors known that influencing transfer: (1) Trainees characteristics; (2) Training design and (3) Work environment. Literature also suggests direct-one way relationships between these factors to the transfer, however has not clearly described how these factors interact to each other in influencing the transfer (Cooper and Zmud, 1990). Referring to Baldwin and Ford (1988) model, the training input factors that can influence transfer of training are; (1) characteristics of the trainee, (2) the instructional programme and (3) the work environment. Basically, the model describes the direct-one way relationship of these factors to the training output (i.e. learning and retention) and to the transfer (i.e. general and maintenance). However, the author does not clearly describe how these factors interact to influence transfer (Elangovan and Karakowsky, 1999). Another model proposed by Elangovan and Karakowsky (1999) illustrates the effect of two factors to the transfer of training. Those factors consist of individual factors and environmental factors as shown and described in Figure 2.5.

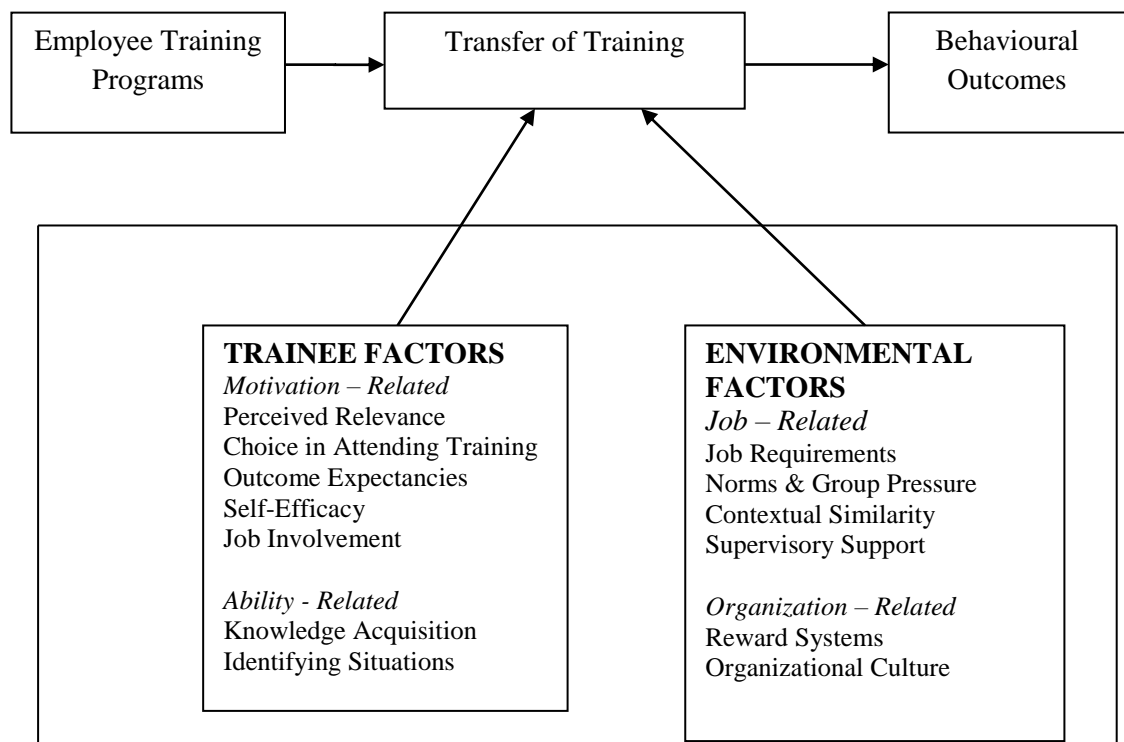


Figure 2.5 Factors influencing transfer of training (Elangovan and Karakowsky, 1999)

Based on Baldwin and Ford's model, researchers have studied some of these factors in detail. However, the most heavily research area was the design factors and limited literature were found on the effect of individual trainees' characteristics and external factors such as environmental factors (Rummler, and Brache, 1990). Moreover, Baldwin and Ford (1988) states that only the characteristics of the trainee and the work environment factors may have a direct influence on the ability to transfer and these two factors (e.g. the characteristics of the trainee and the work environment) may directly influence the transfer.

2.4.2 Trainees Factors

Individual trainee factors have been known to influence transfer of training. However, relatively little research works were reported on the role of trainees' key variables in influencing transfer (Cooper and Zmud, 1990). Colquitt et al. (2000) and also Burke and Hutchins (2007) identify the individual factors of trainees are crucial to enhance the transfer of training. However, the extent of transfer and factors influence the successful of training transfer can differ from organisation to organisation depending on types and condition of socio-cultural at workplaces (Burke and Hutchins, 2008 and also Donovan and Darcy, 2011). Literature classified six categories of individual trainee factors that influence transfer; (1) trainee ability, skills and readiness to learn and apply and also aptitude, (2) trainee motivation, (3) trainee self-efficacy, (4) trainee job attitudes and commitments, (5) personality, interest, expectations and (6) goal-orientation (Broad and Newstorm, 1992 and also Elangovan and Karakowsky, 1999). In addition to the above factors, other work-related personality factors and job related barriers can also affect the transfer of training into workplaces.

The trainee ability refers to general capacity of trainee to demonstrate high performance for set of tasks given which includes cognitive and physical ability to acquire knowledge and identifying situation, while aptitude refers to trainee readiness to be trained and later performs the transfer. Readiness to learn, readiness

to apply and cognitive and skill aptitudes were found to influence transfer of training (Devos et al., 2007; Kontoghiorghes, 2004). Another factor, trainee motivation is also proposed to have a direct relationship with; (i) continuous-learning culture (Chiaburu, 2005), (ii) training performance and (iii) perceived transfer (Morrow and Connolly, 1991, Cooper and Zmud, 1990 and also Elangovan and Karakowsky, 1999). Motivation to learn and motivation to transfer were also found to influence transfer of training (Devos et al., 2007). A study by Wexley et al. (1986) indicates motivation to transfer to be a key variable in predicting the levels of transfer that trainees felt they had achieved after training participation. In addition, Colquitt et al. (2000) also suggests that a motivational factor (i.e. valence) to influence transfer. Motivation may also has relationships to other factors such as; (i) perceive relevance of training material, (ii) choice in attending training, (iii) outcome expectancies, (iv) self-efficacy, and (v) job involvement (Elangovan and Karakowsky, 1999). Furthermore, training motivation also determines whether trainee can fit and adapt with their organisation and later transfers the training (Neo and Schmitt, 1986).

Another factor, trainee self-efficacy is related to individual's own judgment on ability to change his/her performance when desired (i.e. to perform tasks) (Holton et al., 2000). Rummler and Brache (1990) and also Neo (2002) suggest that trainee who has high level of self-confidence generally performs better. In another study conducted by Quinones (1995), the author has also found that self-efficacy to influence learning during training. In addition, literature also acknowledges that pre and post-training self-efficacy influence transfer of training (Devos et al., 2007; Sookhai and Budworth, 2010). Table 2.1 summarises classification of individual related factors mentioned in literature that are known to influence transfer of training. It also illustrates factors related to ABC implementation that are relevant to this study, which may directly or indirectly influence the transfer of ABC training. For example, a factor that may influence transfer of training is leadership quality of trainee. Thus, this factor may be crucial to support the introduction of ABC method as new manufacturing concepts in manufacturing companies (Rummler and Brache, 1990). Furthermore, leadership may be viewed as trainee is assigned to lead an ABC team, instead of only become part of member of the ABC

Table 2.1 : Individual factors influencing transfer of training.

No	Factors	Influence to Transfer (Author, year)	Influence to ABC used (Author, year)
1	Ability, Readiness to learn, Readiness to apply, Aptitudes	(1) Related to cognitive and physical ability to acquire knowledge and identify situation. Aptitudes measure trainability (Fleishman, 1972), (2) physical and mental ability show high task performance (Sikalieh, 2003). (3) readiness to learn, readiness to apply and cognitive and skill aptitudes influence transfer (Devos et al., 2007 and Kontoghiorghes, 2004).	Include time ability to practice; Ability to obtain information; Ability to conduct analysis (Stepleton et al., 2004) and (Borjesson, 1998).
2	Motivational factors	Motivation influence (1) ability to fit/adapt with organisation (Neo and Schmitt, 1986), (2) perceive relevance of training material, choice in attending training, outcome expectancies, self-efficacy and job involvement (Elangovan and Karakowsky, 1999), (3) learning culture, training performance and perceived transfer (Yamnill and McLean, 2001 and Chiaburu, 2005). Motivation to learn and motivation to transfer influence transfer (Devos et al., 2007). Valence factor influences transfer (Colquitt et al., 2000).	Affect trainee's shared value and attitude, make easy to get cooperation within organisation (Sohal and Chung, 1998).
3	Self-efficacy	(1) Demonstrates high level of confidence (Baldwin and Ford, 1988), (2) self-efficacy influences learning (Quinones, 1995), (3) related to individual's own judgement on his/her ability to perform tasks (Rummler and Brache, 1990 and also Neo, 2002), (4) pre and post-training self-efficacy influence transfer (Devos et al., 2007 and also Sookhai and Budworth, 2010).	Affect personal communication; easy to receive feedback from top management and workers (Gunasekaran, 1998).
4	Job attitudes and commitments	(1) Job attitudes and commitments affect motivation to learn and also learning performance (Tannenbaum, et al., 1991), (2) job involvement and organisational commitment influence transfer (Velada and Caetano, 2007).	-
5	Individual's personality, interest and expectation.	Explains on trainees with high level of work positions that normally have better transfer performance (Schneider, 1983).	Leadership [i.e. project's champion (Somers and Nelson, 2001)] crucial during introduction phase (Rummler and Brache, 1990).
6	Goal-setting and goal orientation.	Used as post-training intervention to facilitate transfer (Bandura, 1982) and also Bandura and Cervone, 1983).	-
7	Work-related personality factors and job related barriers to transfer	Language barriers (Burnet, 1990 and Rimmelower, 1992); Information technology barrier (Lertwongsatien, 2000); Learning styles barriers (Hofstede, 1984).	Time availability (Sohal and Chung, 1998) and information availability (Stapleton, et al., 2004 and Borjesson, 1994).

team. In another perspective, leadership can be identified with the appointment of the trainee as the ‘champion’ in an ABC project (Somers and Nelson, 2001).

Another individual factors mentioned in ABC literature that may link to trainee motivation are value and attitude of trainee, such as trainee shares similar values and attitudes within organisation and easy to get cooperation from organisation’s member on ABC project (Sohal and Chung, 1998). The factors can be designed as a post-training intervention to facilitate transfer of training (Bandura, 1982 and also Bandura and Cervone, 1983). Further more, trainees’ perception on transfer climate such as supervisors support, peers support, opportunities to perform, and available of resources within the workplace (Chiaburu, 2005; Grossman and Salas, 2011) can also be viewed as part of individual related factors to facilitate or inhibit transfer of training. For example, supervisors’ support and sanctions were found to positively and negatively influence transfer respectively (Holton et al., 2000 and also Tracey and Tews, (2005). In addition, opportunity to perform positively influences transfer (Burke and Hutchins, 2007). In contrast, the lack of time and unsupportive organisational culture inhibit transfer (Brown and McCracken, 2009). Finally, other three factors – trainee job attitude and commitments; personality, interest, expectations; and goal-orientation may influence motivation to learn, learning and transfer directly and/or indirectly.

2.4.3 Lessons Learned from ABC Implementation

As previously discussed in the above section, literature related to ABC implementation is virtually silent about influence of individual factors for successful ABC implementation (for examples see Baird et al., 2007; Brown et al., 2004; Krumwiede, 1998; Nurnaha et al., 2005). However, by examining relevant issues and factors related to successful implementation of ABC, it could provide us with understanding on factors that could influence the transfer of ABC training. Referring to literature, it was found that most of factors influencing ABC

implementation can only be categorised as external factors and may directly or indirectly influence transfer of training. The first category of factors includes; demographics, general experiences and knowledge, skill and ability.

The second category is work related personality factors and the third category is job related factors such as time availability for trainee to implement the transfer of ABC knowledge and skills in workplace (Sohal and Chung, 1998). The third factors can be viewed by identifying whether trainee's job scope entitle him/her to obtain relevant information from organisation's database to conduct detail analysis, which is not normally available from the present system (Stapleton et al., 2004; Borjesson, 1994). Finally, trainee's personnel communication factors can be viewed by identifying whether trainee be able to receive constant feedback from his/her top management and lower level employees on ABC implementation, which may also affect the transfer of ABC training (Gunasekaran, 1999).

2.5 The Conceptual Framework

In the effort to provide a guide on the direction of this study and also to facilitate the initial work of data gathering and analysis, a conceptual framework was developed by researcher as shown in Figure 2.6. The conceptual framework was formulated by integrating the major transfer of training models as mentioned earlier in this chapter. Firstly, the basic model used was from Ford and Baldwin's model (Baldwin and Ford, 1988). In addition to the basic model, Kirkpatrick's training evaluation model and Haskell's taxonomies and some feature of ABC framework have been integrated into the final framework. The framework also considers most of relevant factors which have been discussed in the above section. However, in line with the guideline of grounded theory study approach that suggests researcher to start the study with open minded perspective, the framework developed would only be used to guide the initial work. It would be used to provide the direction in exploring, understanding and describing the transfer experiences and to understand how individual trainee factors influence the transfer of ABC

training (Tannenbaum and Yukl, 1992).

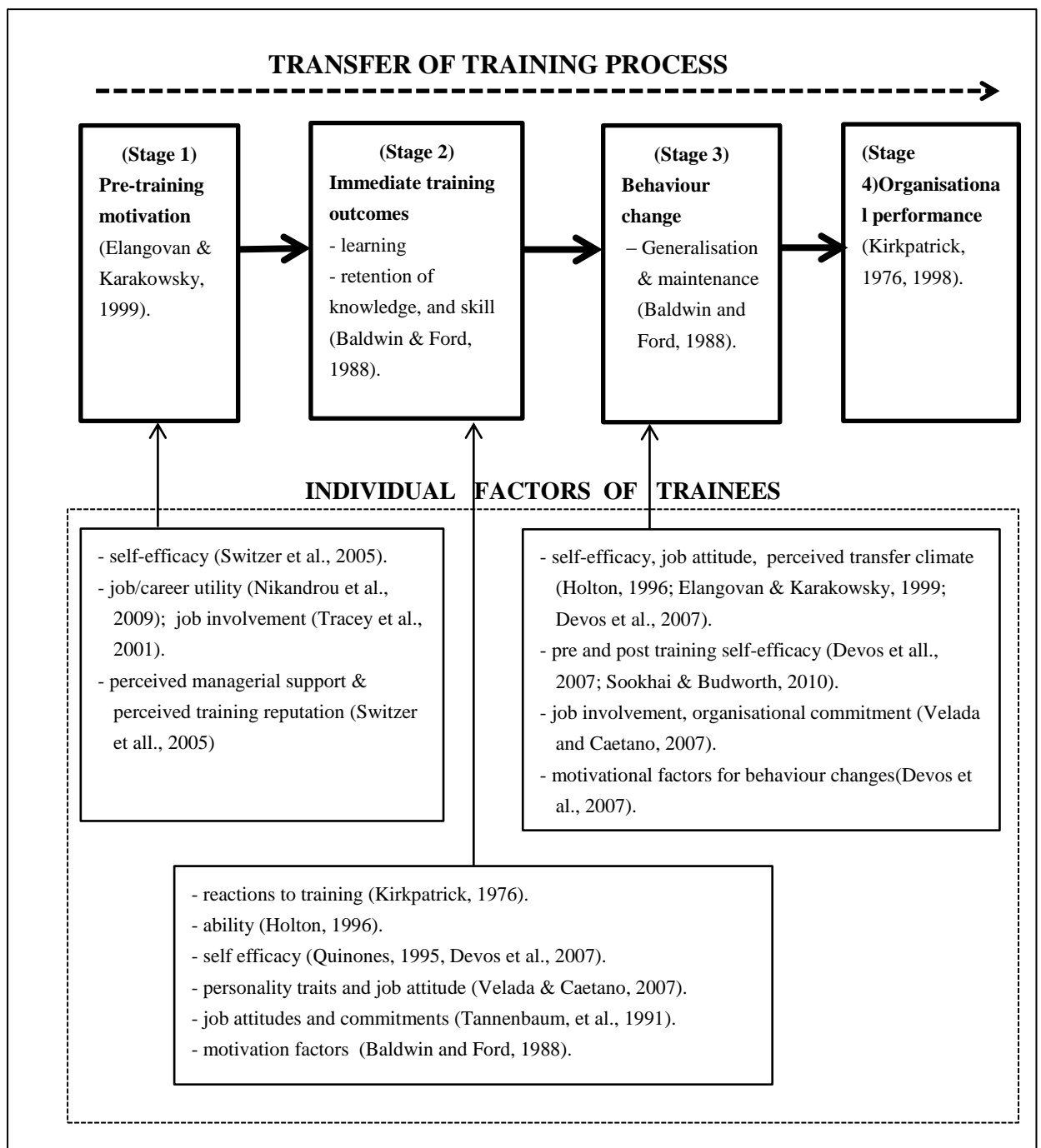


Figure 2.6 Conceptual framework for factors influencing the transfer of training.

Specifically stated, the framework has served as a guide the study that aimed to seek four specific objectives of research; (1) to explore and describe the

experience of transfer of training among practicing engineers of manufacturing companies who have attended ABC training programme; (2) to identify individual trainees' factors that influence the experience of transfer of training among practicing engineers of manufacturing companies who have attended ABC training programme; and (3) to construct a substantive theory that will describe the experience of transfer of ABC training and the relationship of key variables of trainees' factors that influence the transfer of ABC training among practicing engineers of manufacturing companies who have attended ABC training programme.

In conducting this study, it was understood that researcher should observe the guideline of grounded theory study approach. The researcher must not let his prior concept from any of his previous finding including the framework he has developed during the initial work of this study from limiting his data collection and analysis. The step is crucial to be followed by researcher in order to generate original theory of transfer of ABC training that inductively obtained from the participants' data. Researcher also realised that grounded theory approach that he was using is particularly the opposite way of conventional or deductive study approach. The former tries to generate a new theory, but the later tries to prove the existing theory (Glaser and Strauss, 1967; Glaser 1978). In this study, interviews, observations and document inspections were incorporated in the result of the study as a means of triangulation process. In addition, researcher has searched information in the current literature to test the themes that emerged during the analysis. This was aimed to refine and fill the gaps of categories and to link between categories and properties. Finally, it was also used to perform critical analysis on the findings after the researcher has developed his substantive theory (Urquhart, 2001).

2.6 Grounded Theory Method

According to Strauss and Corbin (1998), grounded theory is an interpretive enquiry method that can be used in research that aims to build a theory, a unique research method and also very much contrast to the traditional quantitative method. The quantitative method derives the outcomes deductively from the existing theory, however grounded theory builds theories that generates inductively or ‘grounded’ in data. In short, grounded theory study produces an emerging theory that comes from data and not based on inferring of existing theories. There are six criteria that differentiates grounded theory from other research methods; (1) the analysis focuses to generate new theories or concepts, (2) it employs an open minded study approach, (3) the research design is flexible that able to facilitate the need for unpredicted research outcomes such as number of sampling size, (4) it employs the pragmatic data analysis approach, (5) outcomes is based on inequality individuals and dynamic situations and (6) the method generates theories that are empirically “grounded” in data about reality (Bailey, 1999). In grounded theory, researchers use constant comparison method that requires researcher to concurrently gather data, do analysis and also compare the result systematically. Furthermore, in the process of generating a theory, it follows the flexible and creative research process whereby during analysis, revision processes are done simultaneously and be guided by memo writing, which makes the method as unique (Tan, 2010).

There were five justifications that supported the use of grounded theory method in this study; (1) the study was categorised as an exploratory type of study, which is suitable for a qualitative research approach employing grounded theory method, (2) the method was greatly useful for the type of enquiry that needs to observe and understand phenomena of how the people acted and reacted, took actions or engaged in process of transferring what they have learned into their workplace setting (Creswell, 1998), (3) it was also a suitable method when researcher wanted to investigate meanings the participants assigned to their experiences as they perform their tasks (Creswell, 2007), (4) it was a qualitative research methodology suitable to conduct in-depth study using richer set of data from trainees, which could not be provided if the researcher adopted a quantitative

study method and (5) the study was an exploratory type of study that focused on a specific group of participants, therefore, it was possible to produce meaningful data from participants who have undergone the experiences (Larney and Belle, 2009).

2.6.1 Grounded Theory Approaches

The original version of grounded theory was introduced by Glaser and Strauss (1967), which is considered as the Classical Grounded Theory approach. The approach emphasises on objectivity; external reality and acting as a neutral observer (Glaser, 1978, Glaser, 1992). Another grounded theory approach proposed by Strauss and Corbin is classified as the Emerging Grounded Theory (Strauss and Corbin, 1998 and also Glaser, 1992). The later approach assumes researchers of having unbiased position. Even though it emphasises on applying a prescribed procedure, however it still allows the voice of participants to be captured. In addition to those two major approaches, there is another popular grounded theory approach proposed by Charmaz (2006) called as the Constructivist Grounded Theory. The approach is based on constructivist perspective and it emphasises that researchers should be pragmatist and also contemporary constructivist. The major features of each of those approaches are summarised in Table 2.2.

One of the challenges faced by novice researchers who want to adopt grounded theory method is to select a grounded theory approach that suits to their studies. Tan (2010) and Gurd (2008) suggest guidelines to novice researchers to choose an approach based on their own ontological (i.e. perception of knowledge) and also their own epistemological belief (i.e. the nature of learning) that matches to the grounded theory method they are pursuing. Novice researchers should clarify what is considered as grounded theory method and what is not. Furthermore, researchers should also clarify various arguments related to ontological and epistemological viewpoints of various grounded theory approaches, the chosen grounded theory approach and also use the right terminologies according to the approach selected in the study.

Table 2.2 : Grounded theory approaches

Items Author, year	Original GT Glaser and Strauss (1967)	Glaserian GT Glaser (1978) and reinterpretation Glaser (1992)	Straussian GT Strauss and Corbin (1998)	Constructivist GT Charmaz (2006)
Definition	A credible methodological approach in its own right rather than procedure of qualitative method.	A general methodology of analysis links with data collection that uses a systematic applied set of methods to generate an inductive theory about substantive area (Glaser, 1992)	A qualitative research method that uses a systematic set of procedures to develop and derived grounded theory about a phenomenon (Strauss and Corbin, 1990).	GT method consist of systematic, yet flexible guidelines for collecting and analysing qualitative data to construct theories that are 'grounded' in data themselves.
Emphasis	Important on generating theory based on empirical data rather than going to search for literature.	Objectivity, external reality, neutral observers.	Unbiased observers, technical procedures, participants' own voice. Focus more on the process and technique of research practice.	Constructivist approach places priority on the phenomenon of study and sees both data and analysis as created from shared experiences and relationships with participants.

Table 2.2 : Grounded theory approaches (continue)

Use of literature	Generally to avoid review of literature at the beginning, yet keeping open mind when reviewing them later.	Researchers should ignore the use of literature prior theories and concept formulation.	Use literature as tools to formulate questions, develop theoretical sampling, and identify relevant literature, as secondary of data in analysis. However, it warns not to become too delight and fail to make own discoveries.	Accepting the use of literature and proposes the construction of grounded theory based on researchers' past and present involvements, interaction and practices.
Coding process	Only emphasises the constant comparative method	Substantive coding (Glaser, 1978), open coding, selective coding (Glaser, 1992) and theoretical coding.	Open coding, axial coding, selective coding.	Initial coding, focused coding, theoretical coding and memo writing
Advantage/disadvantage	Provides the originality of grounded theory methodology	Relatively unstructured method. Allows for more creativity, but bears risk of lack of coherence and focus.	A prescriptive and structured method. Paradigm model helps novice researchers to avoid drowning in the data, bears the risk of formulism and inflexibility	A relatively structured approach, but still allows flexibility.

Table 2.2 : Grounded theory approaches (continue)

Remarks	<p>Cautions against dangers of “forcing” data collection and analysis.</p>	<p>Without initial literature search novice researchers may feel difficult to clearly organise their thoughts or narrow the research topics that may results in difficulties in building their own theories.</p>	<p>Using literature may help researchers to extend, validate and refine knowledge in the field, formulating questions, suggesting theoretical sampling, stimulating question, using as secondary source of data, enhancing sensitivity, make comparisons and also extends a theory.</p>	<p>Constructivism GT approach enhances researchers’ own reflective and interpretations and to those of their research participants.</p>
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2.7 Researcher’s Point of View

As the principal researcher in this study, researcher’s background includes both self-learning of ABC method and teaching the engineering economy course in Bachelor of Mechanical Engineering programme at a university since 2002. Researcher also taught the advance engineering economy and accounting course in Masters of Science in Industrial Engineering programme since 2009. Both courses include one major topic on Activity Based Costing. Researcher began study ABC implementation issues in Malaysia since 2001 using Fundamental Research Grants awarded to him and his research associate, first as a project member and then as the project leader.

Within the project period, researcher has developed two software templates that aimed to support to ease the implementation of ABC in small and medium manufacturing companies in Malaysia. The first one was based on Excel worksheet template and another one was developed using Excel Add-in package. From there on, researcher has supervised more than 10 undergraduate student projects and co-

supervised one Master of Science project on the area of Activity Based Costing. The last 10 years researcher worked as lecturer, trainers and consultant in the area of ABC implementation. He continued to develop the area of ABC further by providing series of training on ABC implementation for small and medium size manufacturing companies in Malaysia, particularly in Johor state. Not only researcher has built his expertise in ABC knowledge, but in the process, he has able to equip himself with other manufacturing improvement tools such as in the quality improvement. Furthermore, he was certified as a Green Belt quality improvement practitioner by Institute of Industrial Engineers and also a Certified Quality Engineers by American Society for Quality, USA. Then, using his knowledge and expertise in manufacturing issues, specifically in the area of cost and quality improvements he worked to build network with other process improvement professionals and get current information on tools and techniques used for manufacturing organisations worldwide. He also worked himself to be associated and recognised in manufacturing related professional societies. Thus, he has been accepted as members for various professional societies internationally and locally, such as a senior member of Institute of Industrial Engineers, USA, a senior member of American Society for Quality, a fellow member of Society of Operation Engineers and a fellow member for Malaysian Society for Engineering and Technology. He soon discovered the limitations in term of the lack of awareness and slow adoption of ABC method in Malaysia, especially for use as manufacturing tools for cost improvement strategy, which is related to the objective of this study. During the study, he works as a senior lecturer for department of Manufacturing and Industrial Engineering in the Faculty of Mechanical Engineering. At the same time, since year 2011, he has been elected as the president of the Johor Cost and Quality Engineers' Society, a newly formed society dedicated for cost and quality improvement. Thus, he has been involved in supporting local manufacturing and service companies on cost and quality improvement through organising training related to cost and quality improvement, especially to SMI organisations in Johor.

As has been discussed so far, researcher also believes most companies perceive that transfer of training from classroom into workplace settings is extremely challenging. Even with management support, they feel the success in

transfer of training is normally very limited. With these biases in their point of views, researcher has approached this study with fully understood that much of the works would be challenging. However, researcher also believes that if educators and training practitioners were going to provide help to companies in transferring ABC training successfully, it is critical that they should be equipped with knowledge and learned the right strategy in order to ensure more effective transfer. Therefore, such efforts on improving transfer of training effectiveness are very crucial since the initiatives could avoid resources lost and save huge of training costs which may be wasted if the transfer failed the deliver the desired outcomes.

Considering the current scenario of transfer of training and view that researcher already had about the issue, he may bring some biases to this study that he must manage accordingly. Thus, in managing researcher's own biases, he frequently quotes actual statements from the participant's interview when interpreting a result and supplements it with memos to confirm the finding. Additionally, data from participant's observation has been clearly noted and explained. Furthermore, researcher also utilised other grounded theory approaches in supporting his methodology in gathering and analysis of the data. Thus, using frequent words of the participants, clearly identifying action from the participants' observations and supporting these descriptions with findings from literature on transfer of training were done to manage biases and hoped to bring greater strength and provide trustworthiness to the result of the study.

2.7 Limitation of the Study

This study has some limitations. First, methodological limitation can be attributed to the nature of the grounded theory study approach employed in this study where the finding is only applicable to the study setting. In this study, researcher has focused the objective to explore on the experience of transfer of ABC training and factors influence the transfer among practicing engineers who attended the ABC training programme conducted by researcher. Within the study

period available, the study has completed gathering data which based primarily on interview of participants and performing analysis using constant comparison method. The data collection and analysis ended when the study reached the theoretical saturation point, which is in-line with grounded theory procedure that aims to construct a local theory. Therefore, based on the nature and scope of the study, the study did not intent to produce a formal theory (Gasson, 2004), instead, the goal was limited to produce a substantive theory only. However, for the future study and over the course of years, enough studies may be conducted further which ultimately to produce a formal theory (Gasson, 2004). Second, admittedly this study was also limited by the number of participants and the purposeful sample (Patton, 2002). The participants for this study were personally approached by researcher and invited them to volunteer and to be interviewed for this study. This approach limits the participants of the study to only practicing engineers that have attended researcher's ABC training series conducted from 11 November, 2010 to 29 January, 2012. Thereby, it immediately excluded all other practicing engineers that did not attend the ABC training. Third, even though interviews are suggested to be conducted with more open ended questioning, with each question leading to additional questions as in a pure Glaserian grounded theory approach (Glaser, 1978), this study has chosen to follow a structure approach, as normally followed in a dissertation format. In this approach, interview protocol was developed with specific questions created to be used during interviews. This approach was differ from a pure grounded theory research approach which does not contain the specific research questions and normally has broader questions that are constructed to elicit emergence of concept, and the questions are frequently revised as research proceeds through immediate data analysis (Glaser, 1978). Thus, in this study, the protocol was utilised in all face-to-face interviews and participant's answers were recorded and transcribe. The researcher also did make notes and memos based on the participants' observations. In addition, web-based responses were also conducted to participants who preferred this method. Although these procedures may not limit the trustworthiness of the study, it did limit the evolution of the study process as stated by the pure Glaserian grounded theory approach (Glaser, 1978). Finally, the grounded theory is an inductive type of analysis of study as opposed to conventional deductive study. Thus, it should be mentioned that this approach sometimes is treated with suspect by the scientific community as it does introduces

subjectivity into the research finding (Glaser, 1978).

Therefore, clarifying variations of this grounded theory approach and justifying the grounded theory approach chosen in this study then, acknowledging all the above issues; understanding and recognising of the researcher's bias; recognising the limitations related to interviewed participants and describing in detail the data gathering and analysis processes, researcher also hopes to bring greater strength and also provides trustworthiness to the outcome of this study. Finally, the outcome of the study has proposed a construct of a model of Transfer of ABC Training, which reveals a substantive theory of transfer of ABC training, which open for a knowledge perspective that was recommended to be furthered study in the future research. Therefore, the development of the research methodology of this study which has been described during the process of data gathering, analysis and the final outcome to explore the experience of transfer of ABC training and factors influence the ABC transfer and then, the construction of a substantive theory in the form of a transfer of ABC training model as the final outcome of this study that would help ABC educators and practitioners, both were considered important contributions in this study and therefore, would be the ultimate value of this research.

2.8 Summary

The study has discussed current literature and issues related to the background of this study, which aimed to explore the experience of the transfer of ABC training and factors influencing the transfer of ABC training for practicing engineers in manufacturing companies. The conceptual framework which integrates all relevant factors was constructed, primarily based on Baldwin and Ford's transfer of training model (Baldwin and Ford, 1988), Haskell's taxonomies of transfer of learning (Calais, 2006) and Activity-Based Costing implementation framework (Krumwide, 1998). The framework was used to guide the initial work of this study. The framework was also used to develop a research strategy for this study that

aimed to explore and describe the experience of transfer of ABC training and factors influence the transfer of training for practicing engineers in manufacturing companies. The discussion on the methodology of research, especially in data gathering and analysis will be explained in Chapter 3.

CHAPTER 3

METHODOLOGY OF RESEARCH

3.1 Overview

This chapter starts with a highlight of Grounded Theory method chosen in this study.. It also explains the data collection and analysis procedures that have been used throughout this research. Then, finally it presents an operational framework that summarises the research method in a process flow sequence and was used to guide the study.

3.2 Grounded Theory Method

In this study, researcher employed a qualitative research methodology using grounded theory method (Glaser and Strauss, 1967). In this study researchers use constant comparison method that requires researcher to concurrently gather data, do analysis and also compare the result systematically. In this study, researcher has adopted the Constructivist Grounded Theory method that aimed to explore and describe the experience of transfer of ABC training and factors influencing the transfer of ABC training. The results were identified and described through generating of codes and building categories during data analysis stage (Roffey and Parker, 1997). Thus, based on this approach, researchers employed initial coding; focus coding and theoretical coding during data analysis. In addition, researcher also adopted a ‘paradigm model’ approach for seeking or developing a core

category in the final analysis. The approach lists six criteria for analysis that helps to generate subcategories classifications by answering questions related to where, when, what, why, how and consequence; and property, dimension and statement when employing the technique for writing a storyline (Strauss and Corbin, 1998).

3.3 Activity-Based Costing Training Design and Delivery

In order to achieve the desired training outcomes specifically to ensure a positive transfer of training in the workplace which was considered an important goal in this research; researcher has considered three factors that are important for transfer of training to occur. These factors are trainee's characteristics, training design and workplace environment.

First, in order to ensure participants characteristics positively influenced the transfer of training (Elangovan and Karakowsky, 1999), trainees were chosen based on voluntarily basis and only for those who really interested in learning and use ABC. None of participants was forced to attend the training or use back the training in the workplace without their willingness.

Second, a structured phased approach based on the Instructional System Design (ISD) model was employed throughout the development process that aimed to ensure the training meet the real needs of the participants, minimized rework, saved costs and avoided unnecessary mistakes. The model was based on ADDIE model, which was meant to provide effective training programme. Using ADDIE, researcher has formulated appropriate objectives to meet organizational requirements by incorporated appropriate learning outcomes that were measurable to meet performance standards. The approach in instructional design of ABC training followed the ADDIE model (Wang and Wilcox, 2006), which represents the five phases in sequence, Analyze, Design, Develop, Implement and Evaluate. It represented a set of activities and the expected output in form of tangible deliverable to formulate the training objectives, and then translated it into training outcomes and contents, and organized the training implementation and assessments.

The ADDIE Model

Using the five phases of the ADDIE model, the development of ABC training has outlined basic training parameters such as objectives, scope, milestones, resource requirements and training outputs. The development phases are summarized as follows:

Analyze

The training needs analysis was conducted to clarify the objectives, scope of the training and determine strategies for transfer of training to workplace. Other areas were identifying administration requirements and constraints in implementing the programme such as budget, timing and duration and also the targeted participants' background and needs. The targeted participants were practicing engineers, manufacturing executives, production specialists and decision makers in small and medium scale manufacturing companies. This step was done through discussions with the president of the Johor Small and Medium Scale Industries to determine their requirements for training. Researcher has found that these organisations required their engineers to be trained with necessary knowledge and skill on ABC implementation, which to be used as a tool to reduce cost of manufacturing. to help them compete in local and global market. Therefore, researcher has set the goal of the training to equip participants with basic knowledge and skill on using ABC method to improve manufacturing cost. This goal could be achieved by providing participants with knowledge on ABC concepts and principles and also train them with skills to use ABC tool to improve manufacturing cost.

Design

The design phase was done to translate the objectives of ABC training program into clear and measurable training outcomes, quantify cost and effort for development and implementation, and formulate the structure, sequence, duration, pace, format and mode of delivery. In this phase, researcher has also specified assessments method for learning performance and transfer of training and finally the requirements in implementing the training. Briefly, the training outcomes

described in Table 3.1 were focused to clarify problems with traditional costing method, provide understanding, drive commitment to implement ABC and show solutions for manufacturing cost improvement.

Table 3.1 Activity-Based Costing training outcomes

	Training Outcomes	Bloom's Taxonomy	Haskell's Taxonomy	Assessment
1.	<u>Describe</u> manufacturing scenario and opportunity for having better costing method to get potential benefit of ABC system. <u>Describe</u> stages for ABC implementation using Design-Measure-Analyse-Improve-Implement-Continuous improvement (DMAIIC) approach.	Under- standing	Declarative knowledge Procedure knowledge	Assignment Interview Observation
2.	<u>Prepare</u> and <u>present</u> report on justification for ABC adoption in a company by highlighting problems associated with traditional costing and critical reasons on the use of ABC as a strategy in manufacturing. <u>Prepare</u> and <u>present</u> report for cost improvement and waste reduction to gain support from management, process owners, accountants, etc.)	Applying	Declarative knowledge Procedure knowledge	Assignment Interview Observation
3	<u>Identify</u> and <u>categorize</u> data levels (e.g. resource cost-cost pools-cost drivers-unit cost), type of resources data, typical cost pools (e.g. production, quality, storage, delivery, purchase, etc.) and typical cost drivers used for manufacturing, typical data needed for ABC analysis (e.g. resource costs-cost pools-cost driver quantity) using ABC calculations, analysis and results.	Analysing	Conditional knowledge	Assignment Interview Observation
4.	<u>Evaluate</u> and <u>decide</u> Value-Added and Non Value-Added activities, method for cost improvement and waste reduction for Non Value-Added activities (i.e. seven deadly wastes of lean manufacturing).	Evaluating	Theoretical knowledge	Assignment Interview Observation
5.	<u>Evaluate</u> and <u>present</u> results of cost improvement using a standard format (i.e. consists of executive summary, objective, ABC team, cost improvement implementation and performance, continuous improvement, reflections, conclusion and recommendations).	Evaluating	Theoretical knowledge Strategic knowledge	Assignment Interview Observation

The design of the training was also to provide clear justifications and reasons for adopting ABC strategy to secure support from management, trained

participants to design and develop ABC system, prepared ABC data collection, identified and categorised cost pools and cost drivers for ABC calculations. It also prepared participants to identify Value-Added and Non-Value-Added activities in manufacturing processes. Finally, the training guided participants on to develop action plan to implement improvement and to prepare performance report and recommendations to management for implementing cost improvements. The delivery of the training used classroom lectures (i.e. five hours) and workshops and also discussions (i.e. three hours). The assessments on learning were designed to be conducted during and at the end of training and three month after the training.

Develop

The phase was to develop the training brochure and website for communication with potential participants, training modules to guide learner and additional resources to support participants' learning activities. The ABC training involved application of Excel's spreadsheet for data management and analysis that was developed also by researcher at this phase. In addition to the above tools, participant assessments during and after training were also developed by researcher. Sample of ABC training brochure and learning outcome of the ABC training are attached in Appendix A1 through A7 and B respectively.

Implement

The phase involved the preparation to implement the ABC training, which included preparing training material and programme aids, creating participants' databases, prepare facilitator, venue, schedule participants and conduct training sessions. In this phase, researcher implemented training strategies, gets attendance forms, made participant assessments and get their feedbacks. The attendant sheets that show the date and venue and information of participants attended the ABC training sessions are attached in Appendix C1. In preparing himself to be an effective facilitator for the training, researcher has taken various steps in order to equip him as qualified and good facilitator. First, as graduated in Mechanical Engineering from Ohio University, U.S.A., then having MBA (Finance) degree from University of Hull, United Kingdom and currently works as senior lecturer in the Department of Manufacturing and Industrial Engineering, Faculty of

Mechanical Engineering at Universiti Teknologi Malaysia, researcher has already possessed appropriate knowledge and skill in ABC method. This ability was proven as researcher was the one who pioneered the Activity Based Costing method knowledge into a Mechanical Engineering undergraduate course and then into Industrial Engineering graduate programme. Researcher also has experience in teaching and research in the area of Activity Based Costing and manufacturing cost improvement, and co-authored of a book, *Engineering Economy and Accounting for Engineers* (Muhamad Zameri, et al., 2009). Another initiative made by researcher was to sit for two professional examinations and then is certified as a Quality Engineer from American Society for Quality and a Six-Sigma Green Belt practitioner from Institute of Industrial Engineers respectively. In order to build network to industrial practitioners and access latest information regarding the needs of industries, researcher has also became members of a few professional bodies in locally and internationally (i.e. two professional bodies in Malaysia and another four from United Kingdom and U.S.A respectively). The academic and professional qualifications obtained by researcher and network established with industrial communities through memberships of professional bodies not only targeted to provide motivation to participate in the training, but also meant to build greater trust and confidence to participants in learning of ABC knowledge and skill and later use back what they have learned in the workplace.

Evaluate

The final phase in design and development of ABC training was performed in order to collect and review of evaluation data. Data collected included completed reaction sheets, learning during training (i.e. one minute papers feedback, assignments and short case studies) and application of training at workplace (interviews, observations and document inspections) after the training. The data collected was part of the research works as well as treated as feedback for improvement in the next training sessions. Thus, by following the above five phases of ADDIE model, the successive training session could be improved on continuous basis in order to provide the desired training outcomes.

Finally, even though, participants' workplace was beyond the control of researcher, he has established email communications with the companies' managements that were meant to create better perception on training, encourage supports to their staffs using back the training they have attended and invited them to send more of their staffs in the next series of ABC training session. Furthermore, researcher has also established communications between him as facilitator of the training and participants that were meant to serve participants who needed further supports and helps on implementing the ABC in their workplace by providing them with additional material related to implementation of ABC in organisations. This was done via a website www.abcseminar.com as well as by having a specific email for the training programme, myopenseminar@gmail.com.

3.4 Participants

The participants of this study were practicing engineers who have attended the ABC training programme organised and conducted by researcher. The contents of ABC training were designed to provide trainees with necessary knowledge and skill on ABC implementation that can be used as a tool for manufacturing cost improvement (i.e. cost reduction and cost control in manufacturing process). Information related to dates and general contents for all sessions of ABC training series conducted by researcher is provided in Appendix A1 through Appendix A7. In addition, the learning outcomes designed for the training are described in Appendix B. Further more, information about trainees who have attended one day training programme for each of seven sessions is listed in Appendix C1.

In this study, a purposeful sampling method was employed to select participants in order to gather data for this study. Participants in this study were practicing engineers who have attended ABC training programme from the training sessions conducted during the period between 11th November 2010 to 29th January 201 (Appendix C1). The criteria used to identify them were as the following:

- Participants are employed or worked within a manufacturing environment or in industry related to manufacturing such as from companies which provide the service to manufacturing companies.
- Participants are educated in a manufacturing related programme in higher learning programme such mechanical engineering, electrical engineering, industrial engineering, computer science/engineering, or other manufacturing technology skill sets.
- Participants are familiar with cost improvement concepts for manufacturing operations.
- Participants have voluntarily accepted the invitation to participate in the study and have signed the acceptance letter provided to them.

The criteria for recruiting participants of this study is to ensure firstly, homogenous in the specific competency, which limits to those of having attending similar ABC training programme; second, they can illustrate a phenomenon of transfer of ABC training and third, they able to support further data analysis by providing information richness and depth to the emerging themes for this study (Patton, 2002). The study participants should also meet additional requirements of grounded theory study; first, they can fulfill the objectives of the study and second, their data can provide full range and variation of categories, elaborate and verify the categories, develop relationships between categories that finally lead to a theoretical saturation (Glaser, 1992; Charmaz, 2006). As such, researcher has recruited participants for this study through researcher's personal and work contacts that included employees from companies which are the member of Johor Society of Small and Medium scale industry, alumni or graduates of Universiti Teknologi Malaysia in Mechanical Engineering programme, and others were those who have responded via researcher's web advertisement and then invited to attend the training. In short, the selection decision was limited to those participants of practicing engineers who were interested and have voluntarily attended ABC training programme conducted by the researcher. Further, the participants were not pre-determine but selected as a result of the purposive sampling strategies where the selection of the next participant was lead by the previous data collection, analysis and reflections (Abrams, 2010; Lincoln and Guba, 1985). Overall, the

participants in this study have one year or more of working experiences and viewed their careers in manufacturing related industry. The majority of participants were male except one participant, and their age ranges were between 23 to 53 years old. The educational background recorded thirteen participants of those having engineering degree and the other seven participants have other related degree. They were represented by eighteen participants that have a bachelor degree and above, and the other two participants have qualifications less than bachelor degrees. In term working background, eight participants work at management level and the other twelve participants work at execution or supervision levels. In all, seven participants have five years and above works' experience, four participants have two years to five years of works' experience and the other nine participants have less than two years of works' experience. Appendix C2 lists the details background information of the participants in this study.

3.5 Field Study

During initial field study to gather data, research participants were selected using purposive sampling (i.e. sampling relevant participants that fulfill criteria that will lead to relevant data). They were selected from list of trainees who have attended ABC training series conducted by researcher. Then, the purposive sampling is employed immediately after the training programme to gather demographic data, perception about training and learning. During this time, informal interviews were conducted, recorded and then transcribed as shown in Appendix D1. Participants' observations were also recorded as field notes at the last paragraph of the transcribed sheets. In additions to interview data, documents related to reaction about training and learning during training were also collected as shown in Appendix D2 and D3 respectively. Data related the transfer of training was collected using face to face interview three months after each of training session, where each participant was interviewed in-depth using an interview guide and recorded instruments. Before each interview, participant received and completed a letter of consent and also received a copy of interview guide. Interview sessions took around 30 minutes each and are aimed to let participants; (1) to

describe the meanings they assign to their experiences as they go through to transfer ABC training to their workplace and (2) to convey their perception on factors influencing the transfer. Immediately after each interview, it was transcribed for further analysis as shown in Appendix D4. In addition, using the guideline in Table 3.3, page 70, participants' observations were recorded, assessed and summarised as field notes and added to the transcribed sheets. The relevant documents related to the transfer were also inspected to gather additional data (i.e. production process charts and finished products produced). Furthermore, open-ended online interviews via a website were added to increase participants' involvement, as shown in Appendix D5.

3.5.1 Interviews

In this study, an interview session normally started with warm up part with introduction of the researcher and the back ground of study to establish rapport and to explain aims of the interview. Normally, it opened with explaining who researcher is, what he is doing and to clarify issue on confidentiality, what happen to the findings and how long the interview last. Questions during warm up normally started with simple one, which began with a factual type and easy to answer, such as, what you are doing? Next, the main body of interview consisted of questions related to issues on transfer of training. A procedure to provide cool off were used to diffuse tensions by asking easy question, especially if previous question have been difficult to answer. Finally, the closure part of interview ended with convey of researcher's appreciation and thanks to the participant for spending time and participating in the study. Researcher always reminded himself for not to exceed the time specified. However, informal interview some time still continued after the tape recorder is switch off, however the interaction between researcher and participants became more relaxed and researcher were able to obtained some useful clarification to the previous answered question during the formal interview. The respond was jotted down immediately after the informal session ended to capture participant's point of views and was added to the formal interview transcribes.

3.5.2 Interview Questions

There were few classifications of questions for the interview. The basic one was factual and descriptive question that aimed to determine personal information and activities of respondents (i.e. What did you do? What job you done? How many year working? Do you have experiences related to this training content before attending this training? What important concepts/knowledge/skills you gained from the training?). Another type of question was structural question that meant to get idea how respondent feel and thinking or organise his/her knowledge about the training (i.e. How do you feel about the facilities, supports and delivery of this training? What do you think about the training content? What is your opinion on the relevance and usefulness of this training? How do you describe the nature of your work? How do you see your jobs in relation to concepts, knowledge or skills from the training? What factors have motivates you to overcome difficult tasks in your work? What job advancement important to you?). Follow up or probing questions were sometime asked to let participants elaborate more on their answer (i.e. How did you put training to work? Give your example on this issue. Another type of question was the contrast question to understand meaning of situations to participants, their comparison with other events in their lives (i.e. Which part of training was easiest to practice? Which part did you find most difficult?). More general question was to let participant tell the story or explain their actions or decisions (i.e. Tell me about your experience; What are your expectations and goals related to this training? What other comments or suggestions do you want to give? What do you do to ensure continuous learning?). The interview protocol was prepared according to suggestion made by Hermanns (1991). Table 3.2 below illustrated the interview protocol guidelines that were used in this study.

Another guide to good practice was followed by researcher during interview, such as; (i) to listen more than speak, (ii) using straightforward and non-threatening questions, (iii) avoiding questions with “yes” or “no” answers, and cover all area using questions that start with what, where, when, why and how. In order in increase participation of participants, researcher complemented face to face interview with online interview to cater for some participants that preferred to

respond through the researcher's website, www.abcseminar.com. The nature of online question was open ended set of questions that was asked at once and participants can write their responses and click the submit button after completing their answers. The advantage of this type of responses was no need to be transcribed and immediately can be coded and analyzed. The disadvantage was the answer relatively short and brief, however they are precisely represented participant's exact words. In addition, follow-up sessions via face-to face or telephone were made to clarify or extend the answer whenever necessarily.

While asking questions that meets grounded theory requirement, researcher took the suggestion provided by Glaser (1978) who reminded researcher not to ask the wrong questions that can lead researcher to force the data into categories. Instead, researcher must ensure that only questions that aimed to explore key issues and the experience of the participants were asked during interview. At the same time, research has made continuous reflection from time to time on the nature of questions asked in order to comply with the Constructivist Grounded Theory approach, which required researcher to cover all types of questions in order to collect information which aimed to understand the purpose or meaning participants' statements about their experience, and to explore the implicit meaning of those statements. In the effort to improve data collection process, researchers have established a good relationship with each participant during the training sessions that has helped researcher to understand his/her background and work experience in more detail as to align the questions asked with the situation of the participant. As has been emphasised, the entire interview questions were designed to encourage participants recalled phenomenon that they have undergone as clear as possible. This was done by asking questions that started with "What?" "When?" and "How?" and Why?

Table 3.2 : Interview protocol guidelines

Theoretical Coding	Focused Coding	Initial Coding	Coding
1. To develop theory 2. Refill gap 3. Refine Theoretical sampling No. 9, 10, 11, 12 and above	1. To develop categories, filling the properties and dimensions. 2. To select a core category that connects all Purposive sampling No. 5, No. 6, No. 7, No. 8 and above	1. To generate as many possible codes. 2. To categories codes into categories Purposive sampling No. 1, No2, No 3, No 4	Purpose of analysis Sampling Participants
1. Relationship between outcomes' categories. 2. Relationship between factors' categories	1. Categories, properties and dimensions of learning outcomes 2. Categories, properties and dimensions of factors influencing training outcomes	1. Training outcomes 2. Factors influences training outcomes	Information search
1. What really make you motivated to learn ABC? 2. What really make you feel training joyful and useful? Why? 3. What you have learned during ABC training? 4. Which parts of the training you have confidence to implement into your work? What make your feel so? 5. What really make you motivated to use the training into your work place?	1. What motivate you to attend this ABC training? 2. What is your feeling toward the relation of the training to your job? 3. Which part of ABC training you think easier to understand, which parts are difficult? 4. Describe which part of the ABC training you feel able to be implemented into your workplace? 5. Do you have any intention to practice the ABC training? If yes, what factors motivate you? 6. What you need to be able to implement ABC in your work? 7. What factors do you think is important for your work? 8. Why and how you want to achieve?	1. Explain if you previously have attended or having experiences related to this training content before this training? 2. How do you feel about the facilities, supports and delivery of this training? 3. What do you think about the training content that you learned during training? What is your opinion on the relevance and usefulness of this training to your job? 4. Any other benefits you gain from this training? Why? 5. Any other comment or suggestions.	Questions

The main questions were designed and asked included; (i) Can you describe of your daily work? (ii) Can you describe what you think and feel about the training that you attended? (iii) Can you explain the most important thing you have learned from training? (iv) Can you explain how you can use the training content in your work? (iv) How do you see the future of your career and its relationship with the training? and (v) What are the factors that help you to practice what you learn in the training? The example of questions asked at the end of the interview session was more open and try to capture any missing information, such as; (i) Are there any other things about the training you want to say? (ii) Are there any other things you think I should understand? (iii) Is there any things about the use of training do you need my help?

3.5.3 Recording the Interview

The interviews were recorded using a 4 GHz storage size digital MP3 type recorder that was easy to play back in a computer for transcribing it later. During an interview and soon after the interview, researcher also wrote up notes to remind about hunches, circumstances, etc. and to describe possible interpretation of observation made during the interview.

3.5.4 Transcribing the interview

The experience gained by researcher of this study showed that it took three to five hours of the researcher's time for transcribing an interview session. To check accuracy of transcription, researcher replayed the recorded interview at least two times and checked the written transcribe of interview response and made corrections if necessary. In conducting the interviews, the researcher has focused and tried to understand the answers given by participants, in order to provide direction and guided researcher to gather the next data collection and analysis that would lead researcher to fill up gap in categories and properties identified in this

study. Indeed, to strengthen understanding on the meaning of participants' statements, researcher listened to the recorded interview many times before doing the coding, in order to be able to feel and understand the views and feelings of participants. This step was done according to the recommendation by Charmaz (2006) so that urges researcher to carefully try to understand the language of participants used in answering interview questions. Thus, researcher was able to learn the implicit meaning of the statement made and described by the participants and to avoid researchers from making assumption based on researcher's own understanding that might be a far away from the true meaning that participants tried to express.

In order to get further clarification during an interview, when a participants explained his/her desire to practice the training to his/her job, researcher responded with follow up question to probe further answer in order to clarify the true meaning by asking; "Can you please explain the nature of desire? What kind of activities did you do to achieve the desire? and "What was the difference between this desire with what you done before? The approach has helped researcher to understand the true meaning of participant's statement related to his desire to use the training. The nature of transfer of ABC training was targeted to reduce operation cost using ABC approach in participant's daily work by first identifying operations that involved high cost, then formulated the solutions to solve those problems. Another meaning that the participants wanted to convey was that he/she was continuously looking for opportunities within the scope of work to use the idea of cost improvement. Thus, the above approach in conducting interview has given to researcher a method to have a deeper understanding on the response statement made by a participant on explaining his/her desire to transfer what he/she has learned from training.

3.5.5 Observation

In addition to transcribe of interviews, researcher has also wrote the field notes based on observations of participants on learning during and also transfer of training in workplace to evaluate on the transfer of the training. Non participant

observations were conducted using an observation protocol, which was designed by researcher to capture actions and behaviour information of participants related to reactions, learning, transfer of training and factors influence learning and transfer of training. The observation protocol was used as a guide for conducting fieldworks and writing field notes based on a structured observation.

In conducting an observation, among the crucial things were to identify the dimensions of interaction (e.g. training place on observation during and after the training session for the assessment of learning from training and participants' workplace on observation to evaluate transfer of training). Furthermore, to make observations on learning, observer wanted to know about the person to be observed, whether he or she has certain personality, purpose of attending the training, did he give a specific response to learning through asking questions and sharing ideas, how was his or her reactions and forms of body language demonstrated when responding on learning issues.

In conducting observation, observer also paid attention to the dynamic aspects of learning such as the level of focus a participant demonstrated, such as took notes, submitted written feedback about the content and completed training exercises or related assignments. However, to avoid observation activities created problem in the evaluation process or changed the way of learning or state of participant being observed, the observation was done in an environment that was not too obvious to the participants, which required training to develop skills in observation. However, as the observer was also the facilitator in the training, it was not so difficult for him to ensure the observation made as less obvious to participants since the observer has put himself as the person who was directly involved in learning process, therefore, participants were able to act naturally in the typical atmosphere of the learning. Table 3.3 describes the observation protocol developed and used for conducting observations. Researcher has treated observational data and field notes as additional information to support and clarify the findings of the primary data of transcribed interviews that were gathered from participants. Example of observation data is attached in Appendix D6.

Table 3.3 Observation protocol guidelines

Observation Protocol	
Participant:	Observer and date:
<u>Observation for learning from training.</u>	
1 Personality	(Extrovert, introvert, pleasant, cheerful, etc.). Explain.
2 Job and work commitment related	(Positive, excited, liking, delight, joy, committed, acceptance, relaxed, neutral, bored, dislike, sad, negative, bad, etc.). Explain.
3 Reaction to learning	(Positive, excited, liking, delight, joy, acceptance, relaxed, neutral, bored, dislike, sad, negative, bad, etc.). Explain.
4 Attitude toward training	(Positive, excited, liking, delight, joy, acceptance, relaxed, neutral, bored, dislike, sad, negative, bad, etc.). Explain.
5 Learning: Able to define and/or describe ABC knowledge	Yes/No (explain)
6 Skill gained : Demonstrated use and analysed ABC data	Yes/No (explain)
8 Skill gained : Demonstrated design and/or evaluated ABC application	Yes/No (explain)
Notes:	
Observer and date:	
<u>Observation for Transfer of Training.</u>	
1 Type of industry	(Manufacturing, service, others). Explain.
2 Description of operation.	(Make-to-order, mass production, others). Explain.
3 Position and job type.	(Supervisor, manager, others). Explain.
4 Skill.	(Novice, expert, etc.) Explain.
5 Description workplace lay-out.	(Workshop, production-line, others). Explain.
6 Face expression when explaining about performing work or job.	(Positive, excited, liking, delight, acceptance, relaxed, neutral, bored, dislike, negative, bad, etc.). Explain.
7 Face expression when responding to question on applying ABC.	(Positive, excited, liking, delight, acceptance, relaxed, neutral, bored, dislike, negative, bad, etc.). Explain.
8 Aware, complied, aligned, grasped of the ABC knowledge.	Yes/No (explain)
9 Convinced, decided, practice of ABC approach.	Yes/No (explain)
10 Behaved, exhibited, integrated, spontaneous, of the ABC value.	Yes/No (explain)
Notes:	

3.5.6 Document Inspections

Table 3.4 Documents inspection types and assessment guidelines

Time	Document	Assessment	Status <i>(underline)</i>		
During and immediately after training	Reaction sheet	Interest to learn	High	Medium	Low
		Affective reactions	Strong	Medium	Weak
		Utility reactions	Strong	Medium	Weak
		Codes:			
	One minute paper (learning feedbacks)	Attitude toward learning	Positive	Neutral	Negative
		Trainee's aptitude	High	Low	Not available
	Case problems	Skill gained	Correct	Completed	On time
		Self efficacy	High	Low	Not available
		Codes:			
	Field notes				
Three months after training	Operation flow charts	Identified use of ABC	Very specific	General idea	Not available
	Cost estimates	Analysis performed	Factory wide	Pilot case	Not available
	Work sheet/ instructions	Cost improvement tasks	Factory wide	Pilot case	Not available
	Financial statements etc.	Result obtained	Significant	Not significant	Not available
	Codes:	<i>(document type)</i>			
	Field notes				

In addition to interviews, researcher has also collected written documents from participants that were produced by participants at the researcher's request. Researcher has treated this written data as additional information to support and clarify the findings of the primary data of transcribed interviews that were gathered from participants. The information collected during and immediately after training were reaction sheets and one minute learning feedback sheet. Other document collected three months after training was operation flow charts of manufacturing processes, etc. were. Other related information collected from participant's

organisation was about products produced that require further cost analysis using ABC method. Researcher also collected participants' answer sheet of case study assignments which were completed during and immediately after training to evaluate their individual efforts to further acquire or master understanding and skill of ABC that aimed to transfer of ABC training into their works. Table 3.4 shows types and assessment guidelines used for the document inspected in this study and Appendix D7 provides a summary of document inspected and assessed, which was added into interview transcribes for supporting evidences.

3.6 Data Analysis

Data analysis of the study tried to answer four research questions of this research; (1) How do trainees undergone experience of transfer of ABC training?, (2) How do trainees' factors influence the transfer of ABC training, (3) How does a substantive theory explain the experiences of transfer of training and factors influencing the transfer of ABC training? and (4) How does a model describe the experience of transfer of ABC training for practicing engineers who have attended the ABC's training programme guides the training practitioners to the successful transfer of training? As required by constant-comparison method (Charmaz, 2006), data analysis for this study was done concurrently with data gathering. Thus, immediately after each interview, the recorded interview was transcribed and analysed accordingly before the next interview was conducted. However, for the initial data collection process and to cater the request by participants to fit with their work schedule constrains, the first three interviews were conducted in the same day and subsequently analysed in the following days. Then, the following data gathering and analysis were done using the procedure specified by constant comparative method. It had guided researcher in the analysis, where researcher has compared incident to incident in data that aimed to generate codes and then to create categories. Appendix D8 lists all data files consisted of interview transcribes and other relevant document which were collected and analysed in this study with the help of Atlas.ti software.

3.6.1 Coding

Data analysis of this study started with coding tasks i.e. converting content into codes after information gathered were transcribed in textual content. Coding was used as a way to organise or process data and not the final analysis yet. The process involved naming/labelling/categorises on transcribed interview texts and field notes made by researcher during field studies. According to the Constructivist Grounded Theory approach, which was chosen for this study, it requires researcher to follow three steps of coding stages; (1) initial coding (e.g. identifying, naming or labelling, categorising of interview texts); followed by (2) focused coding (e.g. sorting, synthesising, integrating and diagramming) and ended with (3) theoretical coding (e.g. identifying relationships between categories, conceptualising codes, integrating the theoretical memos toward developing the final theory (Charmaz, 2006). As a comparison, the coding steps are equivalent to coding approach specified by Strauss and Corbin (1998), which also consists of three stages; (1) Open coding – to develop code/index/category with open mind in generating coding of data, (2) Axial coding – a procedure to integrating the categories and (3) Selective coding – the process in selecting the codes and to build theory, respectively.

3.6.2 Initial Coding

During the initial coding, researcher has reminded himself to consider the suggestion made by Glaser (1978), which to ask himself on the purpose of the data that was being studied. Other questions to ponder were; What has been suggested of the data? From whose view it was expressed? and What categories that the data showed? In the initial phase of coding, researcher tried to capture the action made by the participant by generating code that represent an action to represent the segment of the data. A sample page of initial codes generated by researcher during the study is shown in Appendix E1.

Researcher has taken another suggestion made by Glaser (1978, 1992) that urges to carry out initial coding phase without any preconceived concepts in mind. Thus, the researcher performed the initial open coding stage with an open-minded approach, even though the fact that researcher has the prior knowledge and some idea regarding transfer of training studies before beginning the analysis. The prior knowledge that researcher has had was due to literature review conducted before the data collection and analysis. However, this prior knowledge has not been used to determine the finding or to direct the research direction toward a certain issue. The concept of having prior knowledge before performing data analysis has been agreed by Dey (1999) who argues on the approach by saying, "There is a difference between an open mind and empty head". Furthermore, in doing initial coding, the researcher has given attention to clarify and fulfill the gaps in the analysis by collecting and analysing data further in the direction that aimed to overcome and solve issues related to the outcome of the previous analysis.

In the effort to purify categories and refine results of the study, some codes developed by researcher at the initial coding phase were treated as temporary codes. This approach was used during the initial coding because researcher was going to change these codes later in order to align with the meaning of the findings from the data gathered at the later stages. Indeed, researcher has tried hard to follow the advice by Glaser (1978) who suggests to code data using "gerunds" to help researcher in describing an action of participants which close to the actual meaning showed by data. Thus, by following this approach, it helped researcher to perform coding and analysis from the perspective of participants that were considered as the internal view for the study. In addition, researcher has also followed the guideline recommended by Charmaz (2006) that urges researcher to be; (1) remain open, (2) stay close to the data, (3) keep your code simple and precise, (4) construct short codes, (5) preserve actions, and (6) compare data with data and move quickly through the data, during data analysis. However, in order to align with the Constructivist Grounded Theory approach (Charmaz, 2006), researcher also followed a flexible strategies while doing the initial coding. The approach involved; breaking the codes into the properties, defining actions of participants, describing implicit actions and meanings, interpreting for tacit assumptions, conceptualising

crucial concept and views. In addition, to comply with constant comparison method, researcher compared the data emerged from the later data gathered by researcher with the previous data already coded, and then worked toward fulfilling gaps in the previous coded data.

Initial codes also allowed researcher to isolate the data into groups to form categories. At this stage, researcher needed to be critical when interpreting the data and must not allowed his prior knowledge to force data into a category. Therefore, to overcome this tendency, researcher has constantly asked himself a set of questions that aimed to explore and understand the meaning of the statement or action of participants, such as; (1) What was the level of transfer of training process that was reflected in issue here? (2) How did participants act in the process of transfer of training at this level? (3) How did participants feel and think at this stage of transfer of training? and (4) When, why and how this process of transfer of training occurred and what was the effect of transfer of training after that? By following this approach, researcher has gained deeper understanding during data analysis process. It has also given better idea on data that needed to be collected further to complete a category that has been developed. In the case of researcher found an important data from the existing participant, researcher moved back to check data collected from the previous participants to identify the similarity or the difference so that the new result can be modified and categorised accordingly. In other case, where there was no available information from the previous data, researcher continued to collect the next data that aimed to further explain that results using the coding approach called focus coding.

3.6.3 Focused Coding

Focus coding was the second phase of data collection and analysis. It aimed to provide the desired results using more focused approach in the data collection and analysis. This coding was done on selective basis aimed to establish the concept that researcher wanted to put forward as the finding of the study. By

identifying result from a significant or an important initial codes or a code that has lot of repetition, researcher made decision on these codes and continued to work toward more meaningful analysis. Later, these codes were categorised and conceptualised as a main concepts. At this coding phase, researcher has to revisit the previous data and results of analysis to identify and compare the similarity or difference of those experiences and actions conveyed by participants in order to make overall and more comprehensive interpretation of the data. A sample page of focused codes generated by researcher during the study is shown in Appendix E2.

Based on the emerging concept, when researcher has had an unexpected idea previously not shown which provided a clue or idea, then, he may create another concept that related to transfer of training issues. Next, in order to purify a result, researcher has developed a list of focused codes that will be used to compare and contrast with the new data. For example, when researchers have previously developed a code, then later, another code emerged as similar to the previous code, but having identified in a different conditions, then, researcher formed a new category. The new category was used to group both of codes in the category as new properties that served to fulfill the properties for that category. Researcher used the Code Family Manager function provided in Atlas.ti to sort and arrange codes in categories, sub-categories and properties; however the step was done through a repetitive process to list, modify, rearrange and refine those categories. Samples pages of the sorting process done during the analysis and the list of categories and its properties are shown in Appendix E3 and Appendix E4 respectively. In addition, researcher also worked manually to conceptualise the final categories and properties by utilising memos and results from review of literature to finalise the categories and properties and to classify them as components and factors of training transfer process. Samples pages of these manual works are shown Appendix E5 and Appendix E6 respectively.

3.6.4 Theoretical Coding

The essential element of the grounded theory method is to conceptualise data through coding process. In order to do that, each data gathered by the researcher was coded and analysed through initial and focused coding steps that utilised constant comparison method. During the process, researcher converted the codes to a concept that can describe training transfer construct by continuously comparing the identified concept with literature (see Appendix E5 and E6). Indeed, the task of putting codes on the data has released the researcher's focus at the empirical data. The action has also allowed researcher to start breaking down the data to be sorted and classified into categories, properties and dimensions. Then, the theoretical coding was applied as the final step of the analysis. The theoretical coding was used that aimed to build relationships between data and concepts and then integrated them to form a substantive theory that could represent and explain about the entire data. Thus, theoretical codes were employed to provide an integrative and a new perspective on the study as a whole (Glaser, 1992; 1998). Researcher used the Query Tools function, "PROCEED" and "FOLLOW" in Atlas.ti to search for relationships between categories and properties. This process searched for the close relationship between codes, Super Codes (represent a group of codes) or families that were related to each other as located in data files. Appendix E7 shows sample works on identifying relationships between/within categories using query tools functions provided in Atlas.ti software.

3.6.5 Memoing

Memoing was part of the final step in this grounded theory analysis. In this study, memoing was considered as the first task toward generating the final theory. The task was done continuously during data analysis, reviewing and refining the result of the analysis. It also served as theoretical data that was used constantly to compare, sort, categorise and link to other categories while doing constant comparison method of analysis (Glaser, 1978). The use of a database software was

found to be extremely helpful to speed up memoing task. In sorting data to classify categories and properties, each coded quotation has been assigned a temporarily corresponding number using a short memo, which similar to researcher's written memos that also used the same number. Then, by grouping coded quotations into "a family", researcher could categorise them accordingly and later linked them using "super family" tools provided in the software menu, which aimed to test and develop the relationships and toward building the final theory. Sample pages of the initial works to develop the relationships between and within categories using the tool in the software menu are shown in Appendix E7 and Appendix E8. Then, the analysis was continued to further refine the relationships and to fill gaps in categories until the final result was established. The step by step analysis performed during the final analysis of the study which has successfully built the theory of the transfer of ABC training is further described and shown in Appendix F1 through Appendix F5.

3.6.6 Computer Assisted/Aided Qualitative Data Analysis

3.6.6.1 Atlas.ti Workbench

Coding process was facilitated by Computer Assisted Qualitative Data Analysis (CAQDAS), namely Atlas.ti (version 6.1). It is a workbench that helped researcher to analyse data of interview transcribes and other related documents of this study. The tool also helped researcher to explore the complex phenomena grounded in data, as well as to manage, extract, sort and group data (Friese, 2011). For example, data analysis using initial coding was done via open coding, in-vivo coding and code-by-list functions of Atlas.ti. In order to search for answer on what and how do the transfer of training experiences undergone by trainees who attended the ABC training, researcher listed codes in the database that represented experience that trainees might have, such as desiring to learn, wanting to acquired skill etc.. Accordingly, to search for answer on what and how do individual factors of trainees influence the transfer of ABC training experience, researcher listed

codes such as having degree, having position as manager, having confident to perform, perceiving positive support from manager, having committed to work etc. Next, to search for answer on what and how does a theory explain the experience of training transfer and factors influencing the transfer of ABC training for trainees who have attended the ABC training, researcher has searched the emerged codes from field notes and short memos developed by researcher during coding process. Memoing was employed by researcher continuously during analysis process and incorporated into Atlas.ti data base, which aimed to identify and establish categories and to link between these categories later.

3.6.6.2 Data Analysis Using Atlas.ti

Since literature is so far silent on the issue of transfer of ABC training, effort to develop suitable codes for transfer of ABC training and incorporate into the database needed further search using creative thinking. For example, when searching for codes related to transfer climate for ABC use, researcher looked into various angles on how a factor influenced the implementation of ABC into work place. Similarly, for codes related to the actual transfer, researcher looked from various aspects of ABC initiatives performed by trainees in their workplace, which included; (a) efforts to initiate ABC as a new concepts; (b) having assigned to lead an ABC project or (c) having appointed as the ‘champion’ in an ABC project.

Quoting another example of coded codes for work-related personality factors, it was identified as related to factors that reflected by the value and attitude of trainees such as trainees share similar value and attitude within their organisations and also related to those that easily get cooperation from organisation’s members (Sohal and Chung, 1998; Londe and Ginter, 1999; Somers and Nelson, 2001). In searching for codes on the perceived transfer climate, researcher established links between situation at trainees’ workplace and transfer results, such as (a) time availability for trainee to implement the training into workplaces (Sohal and Chung, 1998), (b) trainee’s job scope allowed him/her to obtain relevant information from database for ABC analysis (Sohal and Chung, 1998; Stapleton et al., 2004) and

Table 3.5 List of free memos

Noun	Adverb (properties)	Adjective-maximum (dimension – extreme left)	Adjective-minimum (extreme right)
Demographic and general experiences	Age Gender	Ind. factors-general experience-age- mature Ind. factors-general experience-gender-male	Ind. factors-general experience-age-young Ind. factors-general experience-gender-female
Knowledge, skills, experience	Education Skill-Previous training experience	Ind. factors-KSE-education-degree Ind. factors-KSE-skill-have CPD Ind. factors-KSAE experience-more years	Ind. factors-KSE-education-certificate Ind. factors-KSE-skill-not having CPD Ind. factors-KSE-experience-lacking
Work attitude	Job attitude Career attitude Locus of control Attitude toward learning	Ind. factors-work attitude-job utility-high Ind. factors-work attitude-career utility-high Ind. factors-work attitude-LOC-internal Ind. factors -attitude toward learning-positive	Ind. factors-work attitude-job utility-low Ind. factors-work attitude-career utility-low Ind. factors-work attitude-LOC-external Ind. factors-attitude toward learning-positive
Work Confidence- (Pre-training self-efficacy)	Control Organising Planning Leading	Ind. factors-prior self efficacy-control-high Ind. factors-prior self efficacy-organising-high Ind. factors-prior self efficacy-planning-effective Ind. factors-prior self efficacy-leading-effective	Ind. factors-prior self efficacy-control-low Ind. factors-prior self efficacy-organising-ineffective Ind. factors-prior self efficacy-planning-ineffective Ind. factors-prior self efficacy-leading-ineffective
Job involvement/ Organisation Commitment	Job/ organisation Professionalism	Ind. factors- job involvement - work/job-strong Ind. factors- organisation commitment- professionalism-strong	Ind. factors- job involvement - work/job-weak Ind. factors- organisation commitment professionalism-weak
Motivation to learn (MTL)	Expectancy Instrumentality Valance	MTL-expectancy-optimistic MTL-instrumentality-positive MTL-valance-satisfying	MTL-expectancy-pessimistic MTL instrumentality-weak MTL-valance-dissatisfying
Reaction	Affective Utility	Reaction-affective-Joyful Reaction-utility-relevance	Reaction-affective-dislike Reaction-utility-not related

3.5 : List of free memos (continue)

Learning	Knowledge type Cognitive level (Bloom)	Learning-knowledge type-conceptual Learning-cognitive level-analysing, valuing, creating	Learning-knowledge type procedural Learning-cognitive level-understanding, applying
Post-training self efficacy		Individual factors-post training self efficacy-high	Individual factors-post training self efficacy-low
Motivation to transfer (MTT)	Expectancy Instrumentality Valance	MTT-expectancy-optimistic MTT-instrumentality-positive MTT-valance-satisfying	MTT-expectancy-pessimistic MTT instrumentality-weak MTT-valance-dissatisfying
Goal orientation	Mastery goal Performance	Goal orientation-mastery-high Goal orientation-performance-high	Goal orientation-mastery-low Goal orientation-performance-low
Organisational supports	Management Peers Choice to attend Opportunity-use Facilities	Org. support-management-top managers Org. support-peers-within Org. support-involve-voluntary Org. support-opportunity-available Org. support-facilities-available	Org. support-management-immediate supervisor Org. support-peers-across Org. support-involve-compulsory Org. support-opportunity-constrain-time/priority Org. support-facilities-not available
Transfer of training (training transfer)	Phases Distance (Clark, 2003) Transfer proximity (Calais, 2006) Knowledge type (Calais, 2006)	Training transfer-phases-optimum/unconscious Training transfer-phases-acceptable/conscious Training transfer-distance-far/moderate Training transfer-proximity-creative/far/near Training transfer-knowledge type-conditional/strategic	Training transfer-phases-initial/intention/initiation/partial Training transfer-distance-near Training transfer-proximity-non specific/application/context Training transfer-knowledge type-declarative/procedure
Result results	Individual Organisation	Transfer result-individual-satisfaction, award recognition Transfer result-organisation-ROI increased	Transfer result-individual-low performance Transfer result-organisation-no significant ROI change

(c) trainee receives constant feedback from his/her top management, peers and lower level employees on ABC implementation issues (Gunasekaran, 1999). For other codes, which were considered as the secondary factors that may influence or moderate/enhanced the primary factors of ABC transfer, there could be related to; (i) demographics (Hofstede, 1984) and (ii) knowledge, skill and ability. Table 3.5 listed some of free memos developed by researcher for data analysis. Thus, by utilising coding procedures and memo writing facilitated by Atlas.ti for data analysis, researcher has successfully generated codes for categories that were integrated to form a theory of transfer of ABC training at the final stage of data analysis (Charmaz, 2006).

It should be noted that due to a considerable wide scope of this study, researcher has limited his analysis to explore only the primary factors that directly connected to the experience of ABC transfer of training. However, he also has conceptualised some of the secondary factors that were seemed not directly related to transfer of ABC training. Examples of these factors were; demographics and personal factors such as knowledge, skill and work position. These factors were believed to potentially become moderating factors in enhancing the categories or factors identified in this study.

3.6.7 Theoretical Sensitivity

It should be noted that during analysis of this study, theoretical sensitivity aspects have been observed in order to avoid researcher from forcing data to generate categories while working toward building a theory. Following suggestion by Glaser (1978), researcher has performed coding process in a way that allowed the participants' data to emerge themselves, which finally suggested the theory. The next step of action taken by researcher to follow recommended made by Charmaz (2006) in order to observe theoretical sensitivity issue was by ensuring that the codes developed having meanings that were closed to the data. The step was performed by describing the action of participant or by identifying action that can

be directly linked to the issues raised by participants about the topic that was being discussed. Then, during the final analysis part, reduction process of data was employed to integrate categories, its properties and dimensions to generate meaningful concepts.

The crucial aspect of understanding and describing the participants' experiences on the training transfer was to identify, explain and provide reasons to the participants' perception on their experiences. The step was done by clearly explain the reason for a certain happening and by identifying its relationship to other issues. Considerable attentions were given to codes that were defined less clear to avoid the possible tendency to code them based on the perception or researcher's own idea. Thus, those codes were first written in italic letters, with the intention to review these results later before there were taken as the result of final analysis. As has been reminded by Charmaz (2006), and also to follow the grounded theory concept of emergence process, all codes have been formed by the researcher's own efforts to interpret the data of participants' that close to the actual participant's meaning. Therefore, no code was created based on other source of information that was not associated directly with the participants' data. Researchers have been aware that the coding process can be considered as the main structure of the theory to be developed. Therefore, researcher has made effort to ensure the integration of codes into categories and the core category was done according to the procedures and recommendations of grounded theory approach. In summary, in doing analysis, researcher has taken steps to deeply learn about the interview statement of a participant by serious giving his attention during the coding process (Glaser, 1978). Furthermore, the process of naming/labelling or interpreting a code of interview data was done as transparent as possible by explaining each step of coding process in details. However, during data analysis, researcher also has practiced a flexible approach recommended by Constructivist Grounded Theory perspective. The approach has allowed researcher to anticipate any changes that occurred later due to a result that emerged from new data which have led researcher toward the specific direction. Researcher's next action also suggested by a new result emerged that led him to move on to the next data gathering and analysis toward completing the analysis process.

The experience of doing research using grounded theory approach has made a new awareness to a novice researcher as in the case of this study. The grounded theory method requires very extensive research works that takes more time and effort than other methods because it needs to dig extensively into the data. The analysis using the constant comparison method has taken more time, energy and costs. For the purpose of the dissertation, which must be done by a single person within a limited period of study, grounded theory method was very challenging to fully follow the requirements as prescribed by practitioners whom already have skills and more resources to perform the study. However, given the time and resources available, researcher has tried to conduct this study as close as possible to the procedures and requirements of the grounded theory method. It also requires the researcher to postpone the review of literature until he/she has done the data collection and analysis, however, researcher must make the review earlier in order to prepare for his research proposal. Similarly, research questions which were formulated at the initial stage of this study have only served as to guide the study, whereby this idea has been expanded later based on the findings from the data that led the direction of research. Furthermore, data analysis process needed to be done immediately after each of data collection which guided the further data collection. These procedures really took time and required flexible and adaptive planning styles that sometimes less practical for participants' times and for the researcher to anticipate. However, throughout the study, these procedures have been observed as close as possible to comply with the grounded theory method.

3.6.8 Theoretical Saturation

Starting with data analysis, researcher has emphasised the need to follow the requirement of constant comparison method. Using constant comparison method, researcher has compared new data with the previous data and continued further sampling to collect more data. During the process, researcher has well developed five categories with properties and dimension using variation of codes. As the analysis continued, researcher still kept his awareness to reach saturation point as soon as possible. In the process, researcher has reached a point when he

felt satisfied that he has exhausted the input for all categories. At that stage, researcher also felt he has allowed the concepts to fully emerge and therefore category was saturated. During the process, the researcher has been able to establish the relationship among categories. In this study, the saturation point occurred when researcher has reached the 20th participant. At this point, researcher has judged and felt the saturation point has reached; therefore, he has stopped data collection and analysis (Strauss and Corbin, 1998). Indeed, data collection and analysis were stopped when the theoretical saturation occurred, which in this case has also successfully constructed a theory of transfer of ABC training for the study. It should also be noted that this study did not intent to produce a formal theory that represents more general application of transfer of training study (Gasson, 2004).

In the process of developing the final construct from categories and properties emerged from the analysis, researcher has indirectly applied a “paradigm model” concept suggested by Strauss and Corbin (1998) such as establishing relationship using; (1) central phenomenon, (2) causal condition, (3) context, (4) intervening condition, (5) actions/strategy and (6) consequences. Consequently, at the final stage of the analysis, researcher has constructed a story line using the core theme of “engaging in training transfer progression”. The theme has become the central phenomenon that relates and describes all other categories (i.e. four stages of training transfer progression and factors that influence them). Using paradigm model, the category of factors influence transfer could be explained by causal condition that described events and incidences that also influenced the transfer progression at various contexts (i.e. before, during and after training). The category of training performance could be viewed as intervening condition before actions on transfer performance could be advanced. The training itself needed resources to perform at training context. Both categories of motivation to learn and motivation to transfer could be viewed as strategies which represent the desire (i.e. purpose and goal) of participant to carry out transfer progression (i.e. training and transfer performances) at two different perceived conditions. Finally, the category of transfer performance could be viewed as consequences or the outcomes of training transfer progression. Then, the core category was conceptualised that has the power

to relate and explain all other categories. Thus, researcher has constructed a story line of “engaging in training transfer progression/trajectory” to explain the concept of transfer of ABC training. The whole process was very hard and challenging at first; however at later stage when researcher’s thought has able to process, then finally the solution arrived. The final model fully developed after several models have been reviewed and finalised. Further analysis using memos and revisited the earlier data has been made to refine and filling up into categories using theoretical coding.

3.7 Ensuring Trustworthiness

In order to ensure that this study produced a valid theory as well as a high quality of outcomes, researcher has taken several steps and followed the specific research strategies throughout the study period. Those strategies were related to data collection process, coding process, verification of results, triangulation, and strategies to improve the quality and reliability of the results.

3.7.1 Strategy in Data Collection and Analysis Process

In the effort to ensure that the process of data collection and analysis was conducted in appropriate and systematic manners, an approach using the procedure of peer evaluation has been performed by presenting a sample of interview transcribes with coded quotations to another researcher who is familiar with the coding process and field of the study. Feedback from this peer was used to evaluate the quality of coding made by researcher as well as to adjust and refine the previously coded data. Researcher also has presented the procedure of data gathering and analysis in front of a group of panel member appointed by the school of graduate studies at the university where researcher work in May, 2011. In addition, the procedure was also presented in a conference of engineering education

in April, 2012, as listed and shown in Appendix G1. Overall, feedbacks received during these presentations were considered satisfactory.

3.7.2 Strategy in Coding Process

It is also important that researcher establish the credibility on the coding process performed through the study. Measures were made during the coding process that was aimed to provide evidence for the analysis. Part of the measure was by presenting interview transcribes with coded quotations to participants for their comments whether the transcribed represented the actual meanings they conveyed during the interview sessions. The feedback received from participants confirmed the codes did reflect the meanings on their experience of the transfer of ABC training they have conveyed during the interviews. Sample pages of participant's feedback are shown in Appendix G2. Another measure was by using written field notes and memos that showed the record of the coding process. It was done by constantly compared a category emerged from the analysis of new data with categories that have been identified during the earlier analysis.

3.7.3 Strategy for Verification of Results

It is also important that the results of this study to be verified to ensure they represented the actual meanings that participants have described during interviews to convey their experiences. Thus, an approach using the procedure of member checking has been done, where the final results of the study were sent to participants in order to get their comments and confirmations that the overall findings of this study represents their experience (Tan, 2010). The feedback received from participants confirmed the finding of this study do reflect their experience on the transfer of ABC training. In order to meet the suggestion of several the grounded theory researchers, researcher also conducted interviews with participants to obtain their comments directly on the findings to confirm whether it

reflected the experience they went through in the process of transfer (Patton, 2002 and Creswell, 2007). The feedbacks obtained from participants indicated that they generally agree to the description of the model developed in the study as reflected their experience in transfer of ABC training. Example copies of participants' feedback on the finding of the study are shown in Appendix.

3.7.4 Triangulation Strategy

This study has also taken steps to employ the triangulation procedure during data collection and analysis that aimed to strengthen the result of this study. The strategy was by employing several methods of data collection and analysis procedure. Data collection was done using in-depth interviews, supported by field observations and also by inspection of trainees' documents related to the transfer of ABC training. Follow-up interviews were also conducted to obtain additional data in case of incomplete data obtained during the first time interview session. In order to support the interview's result, supplement data was added from field notes of participants' observations and the inspection of related documents. This approach was used to supplement the data collection and analysis, and also as a mean of triangulation process to strengthen the findings. During the analysis phase, further search of literature beyond the normal literature review tasks was conducted by researcher. It was done to compare the result obtained from this study to other studies and also to align or differentiate the findings of this study. During the search, researcher has used literatures to test the themes that emerged during the analysis in the process to refine and fulfill the gaps of categories and to check links between categories and properties as well as to perform critical analysis after researcher has developed the substantive theory of transfer of ABC training (Urquhart, 2001).

3.7.5 Strategies to Improve the Quality and Reliability of the Results

The effort to build trust between researcher and participants was considered the most important factor for producing quality data and ensuring the reliability of the results. Therefore, efforts have been made to develop trust with the participants of this study that could enhance a closer relationship and build trust with them. The initiatives made by researcher were through building networking and by clearly explaining the purpose of the study to them. Networking with participants was also established to provide efficient and consistent communication with them via a website, which was set up by researcher (e.g. www.abcseminar.com). The network provided and updated information regarding training, opportunity to give feedback as well as additional information on the further training that they can join. Another communication tool was also provided through establishing cost and quality club on the researcher's Facebook that was updated regularly by posting new information regarding training. Training participants were invited to join the Johor Cost and Quality Engineers' Society, which was co-founded and lead by researcher that aims to establish better networking and gaining excess on latest information on cost and quality improvements and other related areas in manufacturing.

3.8 Summary

The chapter has provided the overall discussion on the study process according to the guideline of the qualitative research methodology using Constructivist Grounded Theory approach employed in this study. It also described steps taken in collection and analysis of data, which involved three steps; initial coding, focused coding and theoretical coding. Regarding data management and analysis, the chapter has elaborated the use of CAQDAS's software namely Atlas.ti, which was very helpful tool to conduct the study. The overall descriptions of the methodology employed in this study is further summarised in a flow chart of the research process and presented as the operational framework of the study, as shown in Figure 3.1. The chapter has also highlighted some key issues in grounded theory

study such as constant comparison method, theoretical saturation and theoretical sensitivity. Finally, the chapter ended with describing various strategies used in the study to ensure trustworthiness in the findings, including strategy for data collection process, coding process, verification of results, triangulation, and also strategies to improve the quality and reliability of the results.

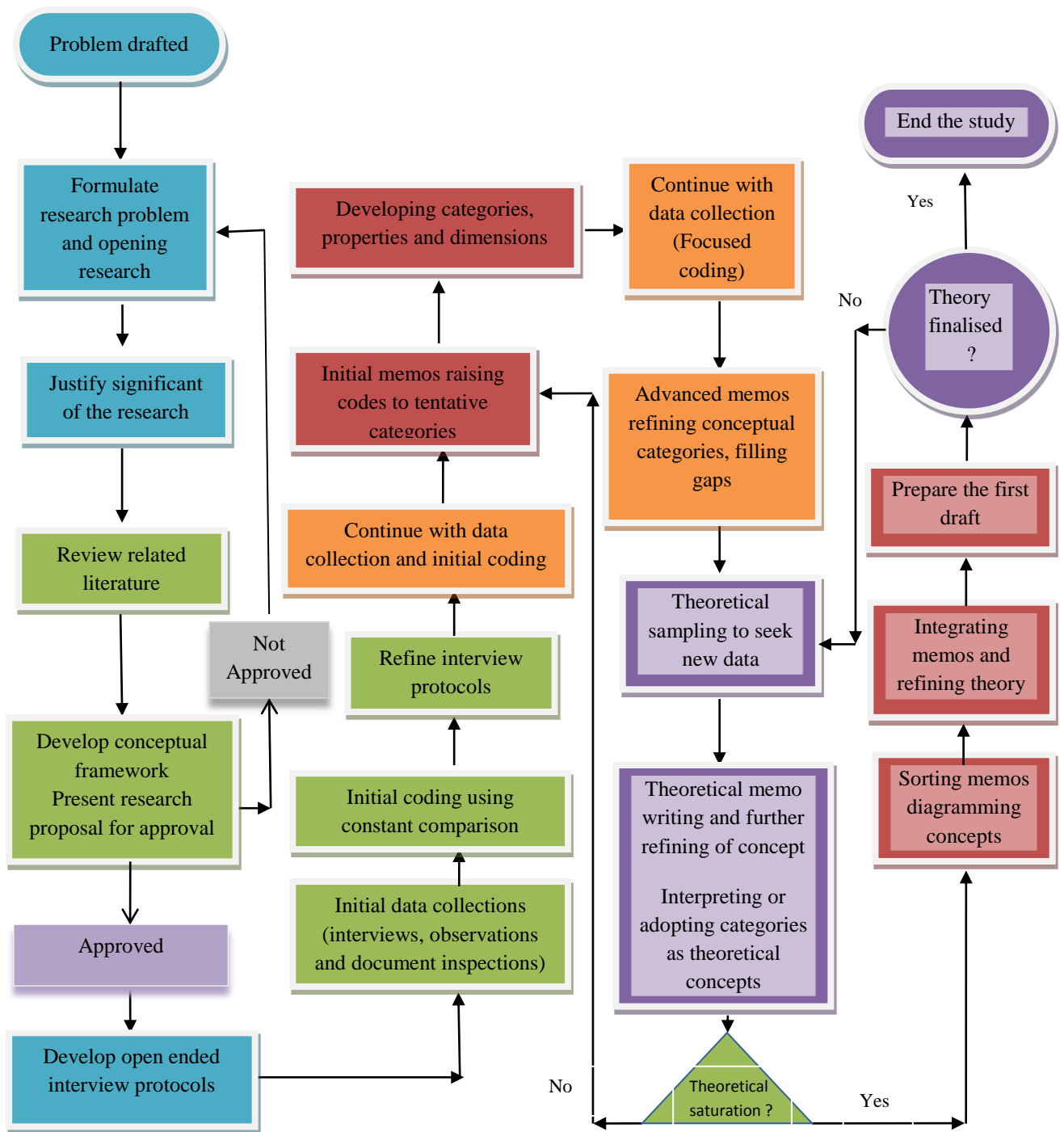


Figure 3.1 Operational research framework.

CHAPTER 4

ANALYSIS AND RESULTS

4.1 Overview

This chapter describes the result of data analysis. Data from this study were gathered from interview, observation notes and related documents about the experience of trainees, which were gathered at the end of and three months after the training. All data were organised as data files for used in Atlas.ti as listed in Appendix D8. In this study, researcher started the analysis with coding tasks. The study employed three steps of coding process; initial coding, focused coding and theoretical coding (Charmaz, 2006). There were 942 codes generated during the analysis. During the analysis, 625 short memos were also created and attached to related codes. Then, with the help of memos, codes were sorted into 83 themes, and then further reduced to 17 major themes to form classification of concepts that reflects participants' experience on the transfer of ABC training. The major themes were then sorted into five major categories and its properties. Finally, the core category was selected, linked to other categories and conceptualised to form a construct of the transfer of ABC training. The following sections describe emerging themes, the construction of categories and the core category that describe the experience and factors influencing the transfer of ABC training for practicing engineers in manufacturing companies.

4.2 Initial Results

The initial results were obtained from the analysis of transcribe interview texts, observations and related documents. During the analysis, initial codes were assigned on the selected quotations of texts by creating free codes or by taking from the data base in code-by-list menu prepared by researcher as shown in Figure 4.1 and further elaborated in in Appendix E1.

Activity-Based Costing Training: Training Evaluation Participants: <u>SA</u> Date: <u>10/11/11</u> (Interview transcribes)	Free Codes
Please provide your feedback based on the following areas: 1. Explain if you previously have attended or having experiences related to this training content before attending this training? <u>[I have previous training experience that was related to cost management and control. I have some knowledge about costing.]</u> ¹ 2. How do you feel about the facilities, supports and delivery of this training? <u>[I feel satisfied with the facilities and equipment used in this training. I found hand-out materials provided also useful to help me learn better.]</u> ² <u>[I am very much satisfied and like the way speaker presented the training]</u> ³ <u>[I think the delivery met all of the objectives of the training and effectively cover thoroughly the content with the time given.]</u> ⁴ Continue.....	➤ Attended CPD previously ¹ Memo: Assume this trainee has skill prior training ➤ Expressing satisfaction with environment ² ➤ Liking delivery method ³ ➤ Understanding facts and procedues. ⁴

Figure 4.1: Sample pages of initial coding using free codes

Based on analysis of the first three participants, researcher has generated numbers of free codes that tentatively can a few categories related to the study. Table 4.1 illustrates the initial codes emerged from the analysis.

Table 4.1: Initial codes

Free codes	Counts	Tentative categories
Understanding the objectives	3	Learning related
Understanding how to implement	1	Learning related
Retaining the objectives	3	Learning related
Retaining the way to implement	1	Learning related
Initiating the idea	3	Transfer related
Adopting the idea	1	Transfer related
Adaptation of the objectives	1	Transfer related
Accepting ABC project	1	Transfer related
Adapting with organisation culture	3	Adaptation - motivation
Being in continuous learning	3	Adaptation- motivation
Obtaining information to analyse	3	involvement/ Organisation commitment
Choosing to attend training	3	Personality - motivation
Having ability to acquire knowledge	3	Cognitive ability
Demonstrating ability to acquire skill	1	Skill ability
Demonstrating ability to identify situation	3	Cognitive ability
Demonstrating ability to use situation	1	Skill ability
Demonstrating performance for a task	3	Aptitude ability
Expecting outcome	2	Personality - motivation
Expecting to implement	2	Expectation personality
Fitting with organisation rules	3	Fitting - Motivation
Gaining corporation from organisation	3	Fitting - motivation
Showing good value and attitude	3	Personality- motivation
Having time to use knowledge	1	Cognitive job attitude
Having good aptitude	3	Aptitude - ability
Having motivation to learn	3	Personality – motivation
Having motivation to transfer	2	Personality - motivation
Having self confidence	3	Personality – self efficacy
Initiating ABC as new concept	1	Leadership – self efficacy
Showing interest on method	1	Interest – personality
Judging own ability	3	Personality – self efficacy
Perceiving relevance of training	2	Job involvement
Readiness to apply	2	Skill ability
Readiness to learn	3	Cognitive ability
Readiness to perform task	1	Skill – ability
Readiness to be trained further	1	Cognitive ability
Sharing organisation value	2	Adaptation - motivation
Showing good training performance	2	Personality- motivation

As researcher continued to collect and analyse subsequent data and also re-coded the previous data, better and more appropriate codes and categories were developed. Next, when researcher has collected and analysed the first seven

participant, the results showed 23 codes emerged from quotations related to knowledge transfer, which then were grouped into five categories; declarative knowledge (4 quotations), condition knowledge (3 quotations), (iii) procedural knowledge (7 quotations), (iv) strategic knowledge (5 quotations) and (v) theoretical knowledge (4 quotations). Another 5 codes also emerged from 23 quotations for level of transfer, which were categorised as near transfer. Furthermore, 64 codes related to factors influencing transfer were also emerged, which were grouped into four sub-categories of transfer factors; trainee's motivation (32 codes from 88 quotations), trainee's ability (12 codes from 22 quotations), job attitude & Organisation commitment (13 codes from 26 quotations), self-efficacy (7 codes from 12 quotations) and also factors that hinder transfer (3 codes from 10 quotations).

The above results were then used to guide the subsequent data collection and analysis, which were done on selective basis using focus coding that aimed to establish the main concept from the categories of codes, followed by theoretical coding that was used to establish their relationships and then integrated these concepts to form the final theory.

4.3 Categories and Properties

After reviewing and refining the initial result, followed by the subsequent data collection and analysis, which were done on selective basis using focused coding, finally the codes were categorised into 5 major categories; (1) motivation to learn, (2) training performance, (3) motivation to transfer, (4) transfer performance and (5) factors influencing transfer of training. In order to decide each of these categories, codes of sub-categories and sub-sub-categories (i.e. properties and dimensions). Briefly stated, motivation to learn and motivation to transfer were the first and third category identified respectively. The category of training performance has three sub-categories; (1) affective and utility reaction, (2) learning and (3) post training self-efficacy. Other categories were transfer performance that

has three properties; (1) transfer strategy, (2) transfer implementation and (3) perceived organisational result and individual factors influencing transfer that also has three properties; (1) KSE (i.e. knowledge, skill and experiences) and pre-training self-efficacy, (2) work related personality factors and (3) perceived organisation climate. In the final analysis, a core category was selected, conceptualised and integrated into a construct of the transfer of ABC training.

Using constant comparison method of data analysis, categories and its properties were integrated to a core category to form a construct or model namely "Engaging training transfer progression/trajectory". The model described the experience and factors influencing the transfer of ABC training for practicing engineers in manufacturing companies". The model suggests a transfer progression or advancement of transfer in a direction or phases that was larger or beyond the previous phenomenon as experienced by trainee. In addition, the model also describes the path followed by a trainee in order to transfer the ABC training into work place. In a wider sense, the model refers to the ordered set of intermediate stages of transfer steps taken by a trainee in a dynamic transfer environment that relates to time factor as well. The following sections explain and elaborate in detail each of the categories and its properties, which were emerged from the analysis of data related to experience of the trainees on the transfer of ABC training. The first category was motivation to learn, which represented the first stage of ABC training transfer, followed by training performance, motivation to transfer, transfer performance and factors influencing transfer of training.

4.3.1 Motivation to Learn

In order to have a clue on the coverage of data obtained on issues related to motivation to learn, researcher asked questions of what?, when?, where?, how?, why? and what consequences? and then answered each of them respectively using codes generated from the interview transcribes as shown in Table 4.2.

Table 4.2 : Quotations related to motivation to learn

What	When	Where	How	Why	Consequences
"I think this course we can add more new knowledge on our present knowledge" Muhammad (P6,1). "this course is to add more knowledge " memo stating her reason. Salwa (P5,5).	Hafizan (P7,1) has intention to learn when he was looking for knowledge to better perform work-m.	"I want to understand and use the knowledge in my consultancy works and develop software for manufacturing operations" Chai (P13,1)	"This training necessary for me to understand how ABC cost control would be use in my work - Hafizan (P7,1). "learning for both conceptual and procedural knowledge" - MuhdFadli (P8,1).	"For me, we need to learn to use the concept of cost reduction through the ABC method as it is an appropriate concept to the philosophy and value that are obvious to the individual Muslim" Mukram (P12,1)	"I think I need to continue learning to improve ourself , our knowledge. We need to improve our skills to become better . "It is meant for enhancing his professional development - Muhammad (P6,1)

Table 4.3: Properties of motivation to learn

Codes represent the category of motivation to learn	Category
1. Wanting to learn the ABC knowledge	Motivation to learn
2. Desiring to acquiring skills	
3. Desiring to advance learning of present knowledge	
4. Desiring to learn to master knowledge and skill	
5. Desiring to learn the ABC knowledge with help	

After identifying and sorting codes in categories, motivation to learn was found as the first category of experience undergone by trainees, which has five properties; wanting to learn knowledge, desiring to acquiring skills, to advance learning of existing knowledge related to ABC, to master the knowledge and skill, and desiring to learn the ABC knowledge with help Table 4.3 summarises the properties of the category of motivation to learn.

(a) Wanting to Learn the ABC Knowledge

The meanings given by trainee regarding the property of motivation to learn were quoted from a participant's answers. Salwa (P5, 5) has voiced out her intention to learn ABC in order "to add further the knowledge" that also became her

reason for motivation to learn the training. This statement was confirmed from a memo created by researcher about the participant's interest which describes the meaning she has about having intention to understand the content of ABC training, even though during the learning session, she felt less confident with the understanding of procedure in details. From notes of the observation made by researcher during the training session, researcher could identify that she was the kind of participants that has a serious and focus intention in learning. Secondly, on the area where the intention was concerned, Chai (P13, 1) has clarified his "wanting to learn the ABC" by saying "I want to understand and use the knowledge in my consultancy works and to develop software for manufacturing operations". On issue related to the mechanism of intention, Hafizan (P7, 1) was said "this training is necessary for me to understand how ABC cost control can be to use my work" as to describe the participant's description on how his intention was formed, which occurred when he was looking for knowledge to better perform his work. In addition to this issue, Muhd Fadli (P8, 1) clarified the concept of "learning is both conceptual and procedural knowledge". Researcher has also identified Muhd Fadli did give high level of interest and attention during the training in order to learn the fact and knowledge of ABC, especially in the calculation methods to determine the cost and identifying process improvements. On the reason to learn and to join the training, Muhammad (P6,1) said "I think in this course we can add our knowledge to the next level of understanding...". In addition to the reason of the intention, Mukram (P12, 1) was desiring to learn knowledge by saying "For me, we need to learn because we wanted to use the concept of cost reduction using the ABC method as it is an appropriate to the obvious philosophy and value to the individual Muslim". On the consequence of the intention, Muhammad stated, "I think I need to continue to learn in order to improve ourselves on the understanding facts, our skills as we need to add knowledge to become better". He was referring to the meaning of his intention was for enhancing his professional career development.

(b) Desiring to Learn the ABC Knowledge with Help

Azman (P1, 1) has indicated training support has a link to "improve learning with hand-out" as he said, "the notes hand-out provided also helped me with training more easily". As consequences to motivation to learn, it may contribute to

positive affective reaction to training. Reaction, on the other hand has connected to learning. However, if a trainee was lacking in understanding during the training, but by having motivation to learn, this still lead to motivation to transfer at later stage.

(c) Desiring to Acquire Skills

On the issues of when and how, Hafizan (P7, 1) was "showing interest to learn knowledge and acquiring practical skills" by stating, "to increase my knowledge as an engineer in order to be able to solve problems, create a cost analysis and to attempt for cost improvement". The skills mentioned were for analysing and identifying areas to improve. It was observed during informal interview session; Hafizan was also showing a passionate attitude and always shows high interest in learning during training. Referring on the method, Muhd Fadli (P8,1), was "wanting to acquiring practical skills" when referring to the intention to furthered learning, by expressing his willingness to learn as he also needed an expert assistance to actually implement ABC later, as he said, "apart from that, I want to get more guidance from the expert".

(d) Desiring to Advance Present Knowledge

Azman (P1, 1) was observed as a participant who always shows interest during to advance his present knowledge in cost improvement through the training. This also true for Rahmat (P2, 1) as he said "If possible, we get aid in guiding us to use this training in the workplace". During the interview, he was also showing his eagerness on motivation to learn, even though felling lacking of understanding on the details implementation, as he said "even though hard, this training is really good to my job." In addition to this support, Shikh (P3, 1) said "we are looking to participate again next time". During the informal interview, Shikh was considered as a dynamic participant who always shows interest in learning this training as recorded in researcher's field note that confirmed this situation. Muhd Fadli (P8, 1) said, "I think I can add my ABC knowledge in greater depth" giving a sign of

positive motivation to learn which was the reason to attend training as explained in researcher's memo.

(e) Desiring to Learn to Master

The meanings that participants gave include; "wanting to improve and ABC skill", "wanting to improve and skill more", "wanting to produce outcomes" and "desiring to learn to master". Izwan (P10,1) was "looking to improve and the ABC skill" as he said, "in terms of implementation of the whole, I feel less capable, but maybe become easier, if there are people in guiding us". Another participant, Faiz (P9,1) said, "I think to add more to my present knowledge in order to advance my knowledge in building my career, and one day I hope to be able apply it on the job". Furthermore, Izwan (P10, 1) was "wanting to learn the skill more" by saying "... but to apply in work practice, there will be easier if someone is available in guiding us". Accordingly, Hafizan (P7, 1) was "wanting to produce outcomes" by saying "in looking to propose the solution to my company, first, is to study and identify the root cause". Muhammad H (P65, 2) was also "desiring to learn to master" as he said, "I think, I preferred experience, because experience is more important in order to prepare our self to be better person".

4.3.1.1 Motivational Factors

The strongest motivation factor that supported motivation to learn was found to be factor related to valence, as shown by participants' view in of the ABC training such as "valuing the ABC training benefit" in form of; (1) "Valuing ABC learning benefit as attractive" which was an element of motivation to learn, (2) "Valuing ABC training outcome as important strategically" and (3) "Valuing ABC objectives as having attractive features". Firstly, relating to "Valuing the ABC training important", Hafizan (P66, 2) was saying, "Firstly, I am now working as a process engineer, it is very important to understand the method of activity based costing". For "Valuing ABC training outcome as important strategically", Jason C (P70, 2) showing his feeling through providing a suggestion, he said "by repacking

the title itself in a more attractive way, the better approach to build cost saving strategy, since now everybody are concern about cost saving strategy". He also perceived "valuing ABC learning benefit" by saying "the other way to attract or motivate people is creativity that is to make people see the benefit". On "valuing ABC objectives having attractive features" he also stated that "introduce ABC, you keep very attractive objective". This issue brought up was also a valence related factor that is to gain more attractive training benefit, especially to practicing engineers in manufacturing companies. As participant who has more experience and who is having top management position, he stress the motive of learning by clarifying his statement that "I don't think as manager or business owner, I should learn to understand the cost and why I need to come, since I know my cost better, I got my own accountant, I have been in business for long time, I have experience of my business, why should I learn something that I knew?".

4.3.2 Training Performance

The next category that was conceptualised in this study is training performance. The sub-categories or properties of training performance were; reaction to training (e.g. affective reaction and utility reaction), learning (e.g. understanding conceptual knowledge and acquiring procedural knowledge) and post-training self-efficacy (e.g. training self-efficacy). Table 4.4 summarises coded quotations that were derived from participants' own words.

Table 4.4 : Properties of training performance

Codes for the category of training performance	Sub-category of
Feeling satisfying with training environment	Affective reaction
Feeling satisfying with training contents	
Feeling satisfying with delivery method	
Feeling satisfying with speaker	
Feeling satisfying with training aids	
Feeling satisfying with networking opportunity.	

Table 4.4 : Properties of training performance (continue)

Codes for the category of training performance	Sub-category of
Relevance to procedure in analysing process	Utility reaction
Relevance to objective of cost control	
Relevance to overall business decisions	
Feeling less relevance due to job scope limitation	
Understanding facts and concepts	Learning – understanding knowledge and applying skill
Understanding objectives	
Understanding situation to use	
Gaining skills	
Lacking of understanding the procedure which requires help	
The ability to apply procedure and concept	Training self- efficacy
The self-efficacy toward initiating cost improvement in works	
Having less self-efficacy and hoping to get	

4.3.2.1 Reaction to Training

Reactions to training were sub-category or properties of the category of training performance. These properties were categorised into two major themes, affective reaction and utility reaction.

(a) Affective Reaction

Affective reaction has six areas or sub-properties; feeling satisfying with training environment, feeling satisfying with training contents, feeling satisfying with delivery method, feeling satisfying with speaker, feeling satisfying with training aids, feeling satisfying with networking opportunity.

(i) Feeling satisfying environment with training

Azman (P1, 1) has expressed his view related to "feeling satisfied training environment" stating that "facilities and a place in this training is satisfactory. I feel satisfied with the presentation of speaker". Adding by Rahmat (P2, 1), "I am satisfied with the training environment", stating his satisfied feeling on training contents. Azman (P1, 1) expressed his feeling related to "understanding contents thoroughly", saying that "training content can be easily followed through, and arranged in a logical and supported with examples. Also, Zainuddin (P11, 1), expressed his "training content as feeling joy" by saying, "I am happy because I am able to add new knowledge on the use of ABC in cost control". In addition to this issue, Mukram (P12, 1) has expressed his "satisfying with ABC training content" by saying, "I feel very happy to understand the ABC method, because more effective approach and suitable method". Accordingly, Faiz (P68, 2) was "perceiving ABC training as gaining knowledge", saying "I think in my opinion ABC training as well as other similar types of training are very good to add to our knowledge as presented in this course". In addition, he also added, "I am able to clearly understand the training objectives, since the delivery method is suitable for me follow and notes provided really helps me to understand the concept of ABC".

(ii) Feeling satisfying with delivery method

In relation to delivery method, Shikh (P3, 1) was "expressing satisfaction with delivery" by saying, "I feel satisfied with the facilities and equipment used in this training. I found hand-out materials provided is also useful to help me learn better". Another participant, Jason C (P4, 1) has also shown a very positive reaction to training emotionally by saying "the facilities and equipment are appropriate to learning environment. I very much appreciate with materials given and really help me to learn better during the training". In addition, he also added by saying, "the training met all of the objectives set, the training was delivered effectively and enough time given to cover the training". Similarly, Faiz (P9, 1) also expressed his "satisfying with delivery method" by saying, "the delivery method is also easily followed and the note provided really helped to understand ABC concept". Finally,

Zainuddin (P11, 1) has also "feeling training contents and delivery satisfying" by saying, "I feel, I am able to follow through to clearly understand what was delivered with the support of training material provided".

(iii) Feeling satisfying with the speaker

Rahmat (P2, 1) show his appreciation to the speaker personally and hoped to continue to learn the method that he perceived as practical, based on his present job of overseeing the work for air cool components that involves transferring of materials, cutting operations, and welding, sanding and quality inspections. He personally expressed his thanks to the organiser, saying "thanks to the speakers and organisers of this course". Another participant, Shikh (P3, 1) expressed his "liking the speaker's delivery method" by saying, "I am very much satisfied and like the way the speaker presented his training". Similarly, Jason C (P4, 1) has also "feeling satisfy with the speaker" by thanking the organiser at the end of training session.

(iv) Feeling satisfying with training aids

Participant's reaction can also be identified through the express of satisfaction related to training aids. Relating to this issue, Salwa (P5, 5) expressed her "feeling satisfy with training aids" by saying, "this course was interesting, and will be more interesting if participants bring a laptop and try the software provided".

(v) Feeling satisfying with networking opportunity

Another area that participant expressed satisfaction was related to networking opportunity among participants during the training. Referring to the networking opportunity during training, Izwan (P10, 1) who was always cheerful from beginning to the end of the training session has expressed his "feeling enjoyment with networking opportunity" by saying, "I can interact and provide feedback during this training".

(b) Utility Reaction

The subcategories of utility reaction were reflected by participants' views related to three areas of dimensions. The meaning participants' gave was; relevance to procedure to analyse the process, relevance to objective of cost control and relevance to overall business decisions. However, some participants have voiced out the lack of connection to their present job due to limitation of their work scope.

(i) Feeling relevance to procedure in analysing process

Relating to this issue, Azman (P1, 1) has expressed his reaction on "ABC relating to job" by saying, "this knowledge of the ABC system is connected to my work as engineering managers who needs to work on design, make engineering drawing and review the drawings that require much time to do the work". In other occasion, Rahmat (P2, 1) expressed his "ABC usage relating to job" by saying, "It is relevant in my work, for example, I found out methods of evaluating expensive activities in the operations in my company" and "I think there is relevance and it can be used in my work". Similarly, Muhammad (P6, 1) has also stated his "feeling on the relevance of training" by saying, "ABC training is very useful for me to better understand the whole concept of ABC methods, so later we can actual apply in our work". In adding to this support, Hafizan (P7, 1) has "expressing the training relevance" by saying, "ABC training is appropriate to the work, since I need to study through processes that consume a lot of time and cost". In addition, he gave example by saying "Now I am working at component engineering section, I noticed each part need to go through varies processes such as bending and cutting, therefore I need to do analysis for improvement wherever are necessary". Another participant, Zainuddin (P63, 2) expressed his "relating ABC to present work" by saying, "ABC method is suitable for the work I do now". Similarly, Izwan (P69,2) has also express his justification on motivation to learn as "feeling as training satisfying" by saying, "It was a good training, because the training has provide the knowledge that was related to our work and there is connection to what I am doing in my work now".

(ii) Feeling relevance to cost control objective

Referring to this issue, Shikh (P3, 1) has expressed his "relating ABC usage to job" by saying, "I think most of the knowledge given the training is relevant to my job as operation manager in controlling engineering operations". While Muhd Fadli (P8, 1) has recounted a relevance of applying the ABC related to his work in cost improvement at a service company where is working by saying, "there is certainly related to my work in service company as well. I am quite confident that ABC method can also be implemented to control cost in the service process". In addition, during the interview at his factory, Azman (P60, 2) expressed his feeling on "stating relevance of training" by saying, "the training is useful in my place, to identify the operation that need for improvement in the production area".

(iii) Feeling relevance to overall business decisions

As a manager of a printing factory, supervises engineers and a technical staffs andalso his involvement in dealing with printing costs and handling budgeting issues, Jason C (P4, 1) expressed his feeling on "ABC usage relating to job" by saying, "Some parts of the training knowledge from this training are related to my job and very useful to me as a manager". He added later by saying "so, very important for showing ABCconcept to able to get consumer attraction by having label as something new to let people to come first, then let them choose later". Jason L (P14, 1) has expressed his "feeling of relevant training" by saying, "I find out that ABC concept is very much relevant to my business and very useful too to me".

(iv) Feeling less relevance due to job scope limitation

As a graduate researcher in manufacturing company at UTM, Salwa (P5, 5) voiced out her feeling of "lacking of connection to her present job" by saying, "At the moment, I have not able to relate to my job, because I am not yet working in production area". However, she was still "hoping to relate the training later" by

saying, "perhaps, the time will come for me, I want to relate ABC, I can try to relate when it related to my job". In trying to relate the training to his job, Muhammad (P6, 1), who was in his first year of working has expressed his "perceiving of lack of relevance to present work" was due to limited scope of his work at present by saying, "I would like to relate, but up to now, my scope of work has not yet related to area of cost issue".

4.3.2.2 Learning

Learning, a properties of training performance, has four sub-properties or dimensions; understanding facts and concepts, understanding objective and understanding situation to use and the lack of understanding on ABC procedure or in gaining practical skills that needed further help from ABC expert.

(a) Understanding facts and concepts

Referring to this issue, Jason C (P4, 1) has expressed his "understanding facts, concept and procedure" by saying, "I understood most of the training objectives. I believe, I have gained new knowledge on ABC from this training". To complement this fact, Salwa (P5, 5) recounted her "general understanding of ABC facts" by saying, "It (i.e. the ABC approach to cost control) is easy to understand in general". Trying to relate to her understanding, she then recounted, "I understood the purpose of the training to improve cost of activities, its uses, and the concept, and how do we use it in our work". Another participant, Hafizan (P7, 1) also expressed his "understanding facts" by saying, "I understood the concept of ABC, the concept of cost control for use in our work for improvement may and situation to use". Muhd Fadli (P8, 1) added to this fact by saying, "This training has made me to understand more about the concept of ABC for cost control purposes". Another participant, Muhammad (P65, 2) has also stated the same agreement by saying, "For the concept and the knowledge that I learn, I am now know what is the purpose of ABC method in cost improvement, what it is used for in my work". Next, Zainuddin (P11, 1) has expressed what he has gained related to ABC skills by

saying, "My knowledge and skills on how to use the ABC method was also increased after this training. Finally, Chai (P13, 1) conveyed the same message by saying, "I have gained ABC knowledge and skills from the training" and "the training gives me a clear idea on how to put the content into practice (i.e he tried to explain the reason that he think the learning outcome that was also related to some scopes of his work)".

(b) Understanding objectives

Looking more deeply on the issue of learning, some participants expressed their understanding related to ABC purpose or objectives. For Chai (P13, 1) his meaning was related to current issue on business as he said, "I am aware the current shortcoming of the present costing system and its implication to business". Another perception was provided by Fadli (P67, 2) as he conveyed his meaning related to ABC function, and he recounted to the "understanding facts and objectives ABC" by saying, "Generally, I understood that activity based costing usage is meant to control the costs of an organisation".

(c) Understanding situation to use

Some participants have learned the way to identify situation to use ABC at work place. As Azman (P1, 1) recounted his "discovering ABC usage" by saying, "Generally, it is important for those wanted to use the ABC system is to understanding for calculating and controlling costs of the activities" and "other benefits that I get was the idea of managing the activities of my department for improving its efficiency". Muhd Fadli (P8, 1) recounted his "identifying situation to use ABC" by saying, "I need to do analysis on material cost that we rejected, for example its cost has been increasing at our ware house, and we need to reduce our costs". The confirmation related to this issue was the voiced out by Izwan (P10, 1) by saying, "I'm not really sure, but perhaps ABC concept can be used at controlling the labor costs". Later, Azman (P60, 2) was "highlighting ABC for finding root cause" by saying, "we have to buy all materials, the price we cannot control, when we need to bid, we lose out when decision made". He explained the reason was due

to "we do not have capability to many changes, because sometimes for example in one process, I have to cut an angle bar, usually involving the use of oxy-cutter which contributed relatively high cost". Finally, Muhammad (P65, 2) expressed his "understanding on situation suitable for application" by saying, "I know the purpose of ABC for cost control, what it its usage, its concept that we can use to our actual production at our work place".

(d) Gaining skills

Some participants specifically expressed their ABC skill improvement after the training. For examples, Muhd Fadli (P8, 1) said, "to practice in the workplace as overall strategy, it will be quite difficult, to understand better, I think it would be more effective if we also undergone some practical problem, if there are tools that we want to use, we should try at that time, so it will help understand" and maybe, if given more time and opportunities, he was able to do, at least by applying the concept of ABC in improving cost at his work. Through researcher's observation, he seemed to have confident after the training and was looking to advance his work practice in his field of work". Another confirmation was made by Izwan (P10, 1) as he said, "I need to think of ideas and provide suggestion for improvement to reduce cost of my operations". Later, Muhammad (P65, 2) has related this knowledge acquired and also on "gaining skill after training" by saying "we have to have a concept of ABC first, then, we have to identify problem that we can applied". Finally, another participant, Chai (P13, 1) has also agreed to this argument by saying "I have gained knowledge and skills from the training" and "I understood different approaches in cost calculations". Using document inspection assessment guide in Table 3.4, further evidences on skill gained was confirmed when researcher inspected Muhd Fadhli's and Izwan's assignments submitted during the training. Researcher found that Muhd Fadhli has successfully completed the analysis on case studies problems related to unit cost estimate using ABC analysis (case 1), activity driver rates and total overhead cost estimates using both ABC method and traditional costing approach (case 2) and cost estimate for the total of 1,000 unit products based on ABC analysis (case 3), which showed clear evidences of the participant's ability to demonstrate the skill and understood what was learned

during ABC training. Another evidence that showed the same support was provided by Izwan who also has demonstrated his ability on acquiring knowledge and skill by successfully completed and submitted to researcher assignment sheets assigned to him, particularly related to case 1 (unit cost estimate using ABC analysis), case 2 (activity driver rates and total overhead cost using both ABC method and traditional method) and also case 3 (cost estimate for the total of 1,000 unit products using ABC analysis) respectively.

(e) Lacking of understanding the procedure which requires help

In understanding ABC implementation, some participants however, expressed their concerns of lacking the practical related skill to implement ABC into the actual work situation. A participant, Rahmat (P2, 1) has expressed his concern for "asking ABC practical supports" by saying, "I think it is enough to start, but if I really wanted to use, I hope to get further guidance when to use in the future". The same issue was also raised by Salwa (P5, 5) as she said, "If possible during the future training, we can bring our own computer (for practical use of software cost estimation-R), then, we directly use the ABC software during this training, because, when speakers describe, some part may be clearly understand, some input we might not understand (i.e. the method used for calculating the ABC cost)". Finally, for Faiz (P9, 1) who was also "hoping to get more guidance" on acquiring the ABC skill voiced his concern by saying, "When we really wanted to practice the ABC method correctly, I feel, I may need guidance because I did not have experience in using it in real job situation in my work place". Researcher understood that the above statements showed concerns of participants for doing a higher scale ABC analysis using ABC software which was beyond the objective of this training; therefore, the concern were not for doing manual analysis since participants mostly have demonstrated the skill gained and the ability to perform ABC calculations and analysis manually. The training contents that involve using ABC software for doing calculation and ABC analysis which was presented in the training was only an extra advantage, therefore the concern was not a major problem in understanding procedure for implementing ABC in work place.

4.3.2.3 Training Self-efficacy

The property of post-training self-efficacy has three dimensions; the generalised self-efficacy, more focus on the ability to apply procedure and concept, and the self-efficacy toward initiating cost improvement in their works. Similarly, a small group of participants were voiced out their concerns for having less self-efficacy, however, they were hoping to get helps to implement ABC in the future.

(a) Generalised self-efficacy

In relation to generalised self-efficacy, Azman (P60, 2) has given his opinion by "comparing academic learning outcomes and job requirements" by saying, "how the university should expand toward practical reality, for example, no one taught SRI usage in drawing. FEA uses difference software and university uses Cosmo, but it less suitable to be used in drawing here". To further elaborate this point, he made another statement on "using existing software tool" by saying, "Like my self, I am using the available book. Although other people used software likes PV Elite, I still use 5 starspro". Another participant, Zainuddin (P63, T4) also supported issues by "describing his approach in problem solving" by saying, "to solve a problem related to the quality, I will be using the SPC, 8D report, Why-Why analysis, 4M + 1E method and there several other methods".

(b) Self-efficacy toward concept / procedure

Zainuddin (P11, 1) expressed his "having confidence to use" by his statement, "I feel can better practice ABC to improve the cost of the process with a little help from the experts". However, he further clarified as "having confident to use with help" as he said, "I think this ABC method is easy to practice if they received continuous guidance". Another opinion by Jason Lee (P14, 1) has expressed "confidence to apply ABC concept" by stating, "I gained the important concept on cost reduction and general approach to apply ABC to our daily activities". In another case, Muhammad (P6, 1) has expressed his "feeling confident to identify situation" to implement the training by saying, "this training has given to

me myself confident to use ABC concept to improve and costs". Next, Mukram (P12, 1) has also "having confident to adopt ABC in practice" as reflected by his statement, "In general, I believe on the use this method in improving cost of the company's operation". In another case, Jason Chong (P70, 2) suggested on way to promote ABC as "management approach over costing" and showed his confident on the usage on ABC by saying, "how to sell it as a package to attract companies' management and to change their perception by providing the training that is tailored to management approach rather than as the costing approach. To support further this issue, Chai (P62, 2) has also expressed his "confident to use ABC procedure" as he said, "the training gives a clear idea on how to put the content into practice". Later, he clarified again by saying, "the training has given a clear idea on how to put the content into practice, without much difficulty". Another participant, Faiz (P68, 2) also expressed his "having confident to implement with support" by other as reflected from his statement, "I think this method is easy to be implemented". Another participant, Azman (P60, 2) has also "stating ability to learn and master new tool" by saying, "during my study, I did not learn anything about this. I only learned to use FOTRAN, however, the software has no direct use in this work". He also said, "previously, design were simple, but now, many are new, new way to use and document is required to be submitted to the client". Later, in describing his work to design for production process, he said, "When we finished the drawing, it will be given to the production. Our work started from the beginning of drawing to the material requisition issue". Another participant, Shikh (P3, 1) has also "expressing confidence applies training" by saying, "I think, most of the training content was logical organised and clearly explained. I believe I have increased my knowledge on ABC and cost improvement from this training". In another session, Jason L (P71, 2) has also expressed his "having confident to apply procedure" by saying, "what I want to say, it is not complicated to do activity based costing, we also need not to have RM200, 000 software to do that".

(c) Self-efficacy toward initiating cost improvements

In relating to self-efficacy toward cost improvement, Zainuddin (P63,2) has expressed of "having experience to make changes" by stating, "For now, I am able

to make change by changing the vendor of packing box to a new vendor". On "making changes to quality area" he added, "I am now working in the semiconductor manufacturing company, began as a quality engineer, I have created a better system from year 2006 until year 2010". To another participant, Chai (P13, 1) expressed on "high stating confident to use ABC" for improvement by saying, "To make myself more knowledgeable and competent to use of new concept and method in cost improvement (i.e. reasoning, the desire to use)". In addition, Izwan (P69, 2) has expressed his "having experience in work accomplishment" as he said, "as a new person that has been given the task to evaluate a rubber switch component, I am proud because, when the old people do this task, he normally took 6 months period or 8 months, however, I have able to do it within 4 month".

(d) Lacking of self-efficacy

Some participants were expressed their "lacking of self-efficacy" due to having less confident to apply ABC at works. This meaning is reflected from Hafizan statement, as he said, "But like I said, it is a bit difficult to follow through because ABC method is new method to me that I did not have a chance to use yet". To elaborate further to this issue, another participant, MuhdFadli (P8, 1), expressed on "lacking of confidence to practice skills" and well also "feeling lack of authority to influence" by saying, "I think my hardest part to implement ABC is because I am still new to my job, having less influence to others, so to start this, we want to influence other people, so that is the hard part". Another participant, Muhammad (P6, 1), has expressed similar concern relating to "lacking of ability to apply ABC procedure" and hoped to get help on using ABC procedure by saying, "Not really enough skilled if to use directly into work place, if may be helpful if given more time to really gain the skill". Another participant, Hafizan (P7, 1) has also conveyed similar message and said, "If it is necessary, we can ask for help, to make it easier to further understand". Finally, for Salwa (P5, 5) explained on "lacking confident to adopt and to identify situation" by saying, "At this moment, I have not use it, since I have not work yet, no experience at manufacturing operation". She expressed on "having difficulties in the overall implementation" as she concluded, "but it is quit difficult to formulate ABC as a whole implementation concept".

4.3.3 Motivation to Transfer

Table 4.5 : Properties of motivation to transfer

Codes for motivation transfer	Properties
Wanting to apply ABC procedure/analysis	Motivation to transfer
Wanting to adopt ABC concept on in work place	
Wanting to apply ABC to reduce cost at work place	
Wanting to apply for general business strategy	
Wanting to apply to gain experiences/expertise	
Deciding to delay to use due to less favorable situation.	
Motivational factors (valence related factors, expectancy related factors and Instrumentality related factors)	

Participants' expressions on motivation to transfer that can be described using six properties. Table 4.5 summarises these properties such as; motivation to transfer; wanted to apply ABC procedure/analysis, wanting to adopt ABC concept on in work place, wanting to apply ABC to reduce cost at work place, wanting to apply for general business strategy, wanting to apply to gain experiences/expertise and also the feeling of their intention to delay the implementation at the later times. Furthermore, participants also conveyed motivational factors of the intention to transfer the training.

(a) Wanting to apply ABC procedure/analysis

Relating to this issue, Jason C (P4, 1) has expressed his "wanting to apply ABC concept" by saying, "I will try to implement the method of cost improvement from this training in my company" and he has intention to "applying using ABC templates" provided in the training as reflected on his statement, "I will use the template given to improve my work". As a manager in printing factory, he showed very keen intention to use ABC knowledge to control costs in his printing business. For MuhdFadli (P8, 1), he has elaborated his "wanting to implement ABC to work place" by saying, "Of course, I want to implement it to the company". Another

participant, Jason L (P14, 1) who is the director of a concrete manufacturing, expressed his "wanting to use ABC knowledge and skill" by saying, "I want to understand and use the knowledge on ABC method in my concrete business supplier". Next, Hafizan (P66, 2) has also "hoping to learn more on ABC skill through practice" by saying, "If you do not have experience in implementing it, ask those who know to teach us". As a new engineer in a manufacturing company in Johor, he showed during interview his high courage to implement the concept of ABC to reduce manufacturing costs if there were opportunity in the future time. Chai (P62, 2) also expressed his "wanting to implement ABC to build software and for his consultation work" by saying, "I can use the knowledge in developing manufacturing software and put into practice while doing consultancy work".

(b) Wanting to adopt ABC concept on cost improvement

Relating to the above issue, Azman (P1, 1) has expressed his "wanting to use knowledge/skills" by saying, "I want to apply this concept to improve the efficiency of ABC at my work section, for example I was able to check the drawing to be done more efficiently and effectively to reduce errors and repetitive work". As an experience engineer, he seemed to have positive reaction, high understanding and desire to apply ABC. That reaction has led the participant to build desire to use the training concept for cost improvement. In another case, Jason C (P70, 2) has given similar response during interview by showing his keen intention to use ABC and expressed on gaining ABC knowledge to control production costs at his printing works. Further, Hafizan (P7, 1) has expressed his "wanting to implement to work place" by saying, "Yes, I think ABC would be useful knowledge in the future, so to help improve my efficiency at work as a process engineer in process section". As a new engineer who has about one year of experience, he showed enthusiasm to use the concept of ABC to reduce manufacturing costs in work place. Finally, Shikh (P3, 1) has also expressed "wanting to use ABC as cost improvement strategy" by saying, "I will try to use the concept and strategy of the training into my work".

(c) Wanting to apply to gain experiences/expertise

Some participants have expressed their wanting to apply ABC because they desired to gain experiences or develop their expertise in ABC practice. For this issue, Zainuddin (P11, 1) has expressed his "having desire to transfer" by saying, "in order to achieve satisfaction through experience in completion of difficult work in my job that has given to me, and to develop my career as an engineer". Further, he added, "I hope that I can able to have the ability to implement ABC at the best in order to be implemented in any other place where I work". He further added, "I would like to acquire skills fully ABC methods because I would like to implementation it for cost control my work or in any where possible". He is considered as an experience engineer and showed his desire to practice the ABC method at work now or in the near future in order to improve performance and advance his work career in as indicated by researcher's note during the interview.

(d) Deciding to delay to use due to less favourable situation

The challenges to motivation to transfer were related to factors that were expressed by some participants. These issues may contribute to the lack of transfer now or at least delaying the implementation to the near future. The first issue was expressed by Muhammad H (P6, 1), on his "lacking of motivation to apply now" by saying, "I think, this things is still new to me, so, I think, we must have the basic to understand, then we must have the concept, then I have the scope and then the problems that we can practice". The reason behind his statement was because the scope of his work now did not yet involve the area of costs, so he was not sure on the application of ABC in his work. However, he was "hoping to use ABC in the future" as reflected from his words, "For this thing is for the future, so we can use it in our future work". Similarly, another participant, Salwa (P5, 5) also intended to use ABC, however has not yet seen a chance for its use (i.e. in her work now, as a researchers). She also agreed to this point, since she was "looking forward to practice ABC at my work" as she stated, "When I work later, I will be able to practice this concept at my work". Another participant, Faiz (P68, 2) raised the same point as he was "looking forward for opportunity to implement", by saying,

"Yes, but for now I have not able to use it at my work, but one day I hope to apply it in my work". In addition, researcher himself confirmed this statement after having observed during the interview with Izwan (P69, 2) as having the same awareness as "he has shown the same intention to adopt the concept of ABC in his daily work in the future, even though he did not yet implement it right now". Finally, for similar issue was raised by Zainuddin (P63, 2) by saying "However, I have not been able to practice it again in my job now".

4.3.3.1 Motivational Factors to Training Transfer

As reflected by participants' words, the motivational factors to transfer were classified as factors related to valence, expectancy and instrumentality.

(i) Valence related factors

Among the areas related to motivational factor of valence were; work satisfaction for solving problems, feeling of accomplishment, valuing recognition, valuing for having an effective strategy, valuing personal philosophy and valuing the success image. Firstly, Hafizan (P7, 1) has expressed his "valuing satisfaction on solving work problem" by saying, "As an engineer, we prefer to get and solve the problem, as we love to be appreciated". In addition, Zainuddin (P11, 1) has expressed the same issue for "seeing the value of training transfer" by giving reason on his statement, "To increase my knowledge in the areas of cost control to improve operational process". He was also very pleased for other similar action of "gaining cost saving as the outcomes from action made" by saying, "With this I was able to save material costs by 50% and low MOQ". Furthermore, he expressed his "feeling satisfying on work accomplishment" by saying, "Another factor that motivates me in solving the difficult work is satisfaction that I feel after I am able to complete the job". He also recounted on "having seen the result of improvement as satisfying" when referring to the work similar improvement he did previously by saying, "From 2006 until year 2010 customer complaint had been reduced by 80%. And in

2011, we did not receive any customer complaint since August, 2010". Next, participant Jason L (P14, 1) has also expressed it as "I always need to find effective methods in reducing cost, and the ABC method is suitable to be used in business operation like ours". Similarly, Azman (P60, 2) expressed his "wanting to have value", saying, "We need to review further as we make mistake during review process, it will be mistake one of all, next review is to be done again up to the site work". Referring to the previous experience, Rahmat (P61, 2) related his motivation to improve as "receiving benefits from improvement". He said, "Now, we only have six people as compared to the old-fashioned methods that require 11 employees because they have to help in process of holding". This was also true to Hafizan (P66, 2), as he expressed his "valuing recognition received" by saying, "As engineers, we like to get problem that we can solve as we like to be appreciated". The similar situation was also true to Fadli (P67, 2) as he said, "To motivate me, I think, I would like to get appreciation". In addition to these responds, Jason C (P70, 2) has also expressed his "valuing the outcome as more attractive" by his saying, "ABC should not be too much focus on calculations anymore, but we should more stress on management approach, the way we manage our activities in order to gain maximization of profit, which is the bottom line in our business". Referring to "valuing personal philosophy", Mukram (P12, 1) expressed his "feeling of individual responsibility" in relation to motivation to apply the training for justification or as reason to learn and then to use. During the interview, he expressed his feeling related to his individual philosophy as an individual Muslim's obligation to strive to cut wastes or costs and also to be able to compete with other companies. He said, "For me, to apply the concept, it must have a clear philosophy and value". Stating his understanding of Islamic teaching, he said, "God commands us not to waste and the waste of as the wastage behaviour are related and close friends of Satan. The Prophet teaches us not to waste resources by giving instructions do not waste". He perceived that ABC is tool that conforms with his personal belief, and adding that "ABC method indeed can help and be used as a tool to achieve the higher value aligns with Islamic teachings". Next, he said "to build a stronger motivation, the practice of the ABC method to make improvements must be based on the accepted principal, if we accepted to avoid wastages as our principal". To further elaborate, he said, "This effort to avoid wastage and also to meet our religious teaching that also means as a kind of worship". In another

situation, Jason C (P70, 2) has pointed out to let other seeing the success of ABC through example, then he said, "When other sees on the implementation success story through example, then we can share this success to others, then let other use it".

(ii) Expectancy related factors

Among motivational properties related to expectancy were; expecting to improve work/process, expecting to work on continuous improvement, expectation to use as performance monitoring and expecting to enhancing motivation to excel.

Expecting to improve and work/process.

Participant Azman (P1, 1) has expressed his "expecting use to improve and works" as having intention to transfer. He expected on using ABC to produce positive outcomes and he said, "I think this training provides many benefits such as to help me to increase my understanding and improve my focus in my work to improve activities in my company in the future". Another participant, Shikh (P3, 1) has also expressed his "expecting to use to improve process" by saying, "I believe the training will help me to improve and my skill in performing my work in my company". From the observation during the interview session, he showed indication for a strong belief in using the ABC method to improve and control cost. In addition, Jason C (P4, 1) has also expressed his "expecting to use to improve process" by saying, "I believe the training will help me to improve and my skill improvement cost in performing my work in my company". Furthermore, he represented himself as a person with always looking to learn more to improve his work on printing operation. Other opinion was given by Hafizan (P7, 1) that "wanting to produce improvement" by saying, "I need to suggest to my company to study the way we do process in order to identify the root cause". Next, Muhd Fadli (P8, 1) has also stressed his "believing on ABC usage to produce cost improvement outcomes" as he said, "ABC is to control the costs in an organisation so that we can save operational cost in order to increase profits". Later, another participant, Rahmat (P61, 2) shared on his previous effort of improvement to relate his motivation to improve his work with his reflection, "I have to use an oxy cutter

previously that caused a lot of, but now I can save cost of the cutting process....". Finally, Azman (P60, 2) expressed his view on "expecting to improve and work" by saying, "for the error we made in the design process, we can minimize cost of design process by reducing errors we made, because we have to review again....".

Expecting to work on continuous improvement.

A participant, Rahmat (P61, 2) expected to work on reducing man power by saying, "Maybe, we need to use 3 person as our man power when using the old way, but by using the improve method that uses band saw in cutting process, we only need to use one person". He then added, "I really need to do improvement even though having difficulties, especially regarding to budget that was a difficult to get". Next, Chai (P62, 2) has also expressed his "intention to implement improvement continuously" by saying, "As long is the scope of my work is related to the course, definitely I will apply it continuously". To add on this issue, Hafizan (P66, 2) has also "expecting to use ABC for cost improvement" by saying, "For my goal, I will try to further improve what was started by my managers right now". The concept of continuous improvement was also supported by Fadli2 (P67, 2) as his recounted on "having identified cost related situation" by saying, "What I saw, in connection to the cost of production that produces rework, includes the cost to keep the rejected materials".

Expectation to use ABC as performance monitoring.

One of participants, Mukram (P12, 1) has expressed his expecting to use ABC as performance monitoring through "having intention toward performance improvement" as a result of his job involvement that leads the training performance and motivation to apply the training. In this relation, he said, "To continuously strive to make improvement continuously to all who have been around us".

Enhancing the motivation to excel.

Mukram (P72, 2) has conveyed his "desiring to act in order to excel" by saying, "ABC is suitable for implementation in the industry, but to make sure it can be done, we must insert motivation". Similarly, Zainuddin (P63, 2) has expressed his "having a positive work paradigm" in order to excel through gaining the ABC

practical expertise by saying, "We should not perceive for whatever each of new assignment we face as a burden to us, instead, we should treat it as a challenge".

(iii) Instrumentality related factors

The motivational factors that are related to instrumentality for motivation to transfer were identified in five dimensions. The factor was represented by; to produce various outcomes such as for financial reward, to achieve work position, to become an expert in ABC, to be recognised and respected in his job and to be able to lead other.

To gain financial reward.

As concerning to this issue, Faiz (P68, 2) has expressed his "desiring to achieve financial reward" as his motivational factors by saying, "The factor that motivating me ... aa ... may be due to financial reasons". Another participant Jason C(P70, 2) has also expressed his intention on "expecting ABC usage to provide monetary return" as he said, "To increase at motivation, one way is through putting goal for money...not giving incentives, but to promote the training application as problem solving tool in reducing cost and in improve profit". Another participants, Jason L (P71, 2), has voiced out on "solving business problems effectively which will lead to successful outcomes" as he said, "The million dollar question we should ask is how to find the solution that is to tackle this situation, since by giving this solution will satisfy the customer as well giving the added value to the company".

To gain better work position.

A participant, Faiz (P68, 2) has expressed his consideration to "having attention to improve and income and position" as he said, "I hope, in the future, I will able to increase my salary and I will be promoted as well...".

To gain expertise ABC.

A participant, Muhammad (P6, 1) expressed on "focusing to produce outcomes" as indicated from field note that stated that he "have mentioned he had aspirations to increase the knowledge and experience in the ABC to use his work in

the future". Another participant, Jason C (P70, 2) was "seeing the transfer outcomes / results" as his motivation to transfer by saying, "Dramatically improved the efficiency of manpower by having the quality of more competent people will determine less wastage, less material and faster machine set up, method using more capable, quick set-up method".

Desiring recognition/respected.

For the participant, Muhd Fadli (P8, 1), he expressed his "wanting to be appreciated" as reflected by his saying, "This means that, our opinion is valued, that does motivate me that make me feel more energetic". Another participant, Salwa (P64, 2) has also voiced out the reason to transfer the training in the future as she was "expecting to implement ABC to create specific outcomes" by saying, "I will be able to practice this concept at work later, so that this concept can be respected, that has different approach of solution as compared with others". In addition to this statement, she also said, "To motivate you at work, in order to be visible with different kind of solutions and creativity". For another participant, Hafizan (P66, 2) who has expressed his motivation to transfer as he was "expecting to perform ABC to create a desirable result" as he said, "We will do well and we can solve the problems that, then, we will feel more satisfaction over others". Referring to this issue, he continued by saying, "feeling motivated by supervisor recognition" as he said, "We view that praise is enough to make we feel wanting more problem to solve in time, so we can add our experience, yes, it is a kind of satisfaction". Finally, Izwan (P69, 2) has also expressed on "trying to gain respect though work accomplishment" as he said, "Even though something that looks like not important to others, but we try in order to change the perception of other about engineering".

Desiring leadership position.

In relation to desiring to lead and intention to have a leadership position in work and in the industry, some participants have indicated their responses to this issue. Muhd Fadli (P8, 1) has conveyed his intention to use ABC as "wanting to be recognised" such as to become a champion to an ABC team at his work. Relating to it, he said "For me, I think when we received recognition as we are more important than other, and then as we are accepted as a key player, we have a value to the

company". As he was also "wanting to become a champion" in practicing ABC, by saying, "If possible, I want to master in ABC practice, then I can apply into the company, later I can be the key player in the organisation". On the other hand, Rahmat (P61, 2) has expressed his "having attention to change others' perception" for implementing improvement by saying, "I would like to open the minds of the production staffs on how to be interested in other things". In addition, Mukram (P72, 2) expressed his perception on "seeing ABC as tool to compete" that was aimed to build competitiveness as the transfer outcomes and "to put yourself as a winner in the industry" by saying, "In order to position our self as the winner that will lead our competitors who do not practice ABC". Furthermore, he also wanted on "creating example to others" by creating the success story as an outcome of the implementation, as he said, "They will start to study and could see the good things that we have done, and later, we can expand this application through success examples". He also expressed his "wanting to be a winner" as well as "having intention to lead the industry" by sayings, "For doing good things, we must strive to compete and then emerges as winners" and "if we wanted a great accomplishment, we must be the winner in our industry, we will not be satisfied to be only as competitor".

4.3.4 Transfer Performance

The fourth major category after motivation to transfer is the transfer performance. The category has three properties represented as steps of transfer; transfer strategy, followed by transfer implementation and finally, perceived result of organisation. Table 4.6 shows the summary of codes derived from participants' words related to the above category and the sub-categories.

Table 4.6 : Properties of transfer performance

Codes	Sub-categories
Identifying objective to implement ABC	Transfer Strategy
Identifying situation to use	
Identifying resources	
Identifying approach to use	
Identifying approached and requirements	
Identifying constrains	
Determining the level Implementation	Transfer Implementation
Doing analysis of the operation cost and	
Determining the process costs	
Improving ROI of the company	Perceived Organisational Results
Reducing operation cost	
Improving customer relationship management	
Improving supplier management	
Promoting creativity	
Improving performance measures	
Improving business strategy and decision makings	
Gaining for cost leadership	
Improving ROI of the company	

4.3.4.1 Transfer Strategy

(a) Identifying objective to implement ABC

In explaining the strategy of identifying objectives to use ABC, the dimensions that can explain this concept were; identifying profit as the strategy, to develop the software tool, for cost estimation, cost control, decision making, solving financial issues and for developing leadership in industry.

Profit improvement objective as the strategy.

The response by Mukram (P12, 1) on "relating to business profit purpose" gave the reason to apply ABC as he said, "This practice has cause us to improve the profit which is the purpose of our business goal". Clarifying this further, Mukram (P72, 2) said, "then, secondly, the practice of this method will lead to increased profits, so any profit increase that would be a satisfying for most of people". He concluded, "on ABC practice as the purpose to increase the business profit, has already sufficient".

Software development objective toll as the strategy.

The objective to develop the implementation support tools for ABC is explained by some participants. Chai (P13, 1), expressed his "expecting to use ABC to develop tools and consulting work" in his software development and consultancy as he said, "I will try to use the ABC method to my consultancy works in providing software solutions to manufacturing problems". Another participant, Jason L (P71, 2), expressed his "identifying of using ABC to support its financial monitoring system" in his company as he said, "EBITA is an accounting method similar with ABC method, we focus on key result area, you must focus on that for quality and others".

Cost estimation as the strategy.

The strategy for cost estimation was another objective to apply ABC as voiced by a participant, Azman (P60, 2) who expressed his "identifying cost estimation usage as ABC training" by saying, "The ABC training can be implemented, but it is used for product costing".

Cost improvement and objective as the control strategy.

Relating to the transfer objective for cost improvement and control strategy, Azman (P60, 2) expressed on "finding the root cause of high cost operation" as his transfer strategy at his company, as he recounted on "having material cost control as priority", by saying, "Raw material costs are more than 60%, the materials are bought from overseas about 40%, but those purchased from local suppliers are too

expensive". In addition, he identified another transfer strategy as "identifying the area ABC usage in engineering work" and said, "For engineering section. It can use the same template, such as in drawing work to reduce the number of revisions, we can use ABC in my work in order to reduce the cost of review". Another participant who worked in different section, Rahmat (P61, 2) was "realising need to monitor work situation". He said, "Last time, there was near accident happened, and especially once of the afternoon working hours, since the performance was not the same for the evening hours". He also expressed his "prioritizing objective for transfer" by saying, "The most important for production is time, we need to meet the time, that to chase to meet the target, since if we caused delay, it will reflect on our commitment". Another participant, Zainuddin (P63, 2) has identified the objective to apply ABC as "having intention to control cost" as he said, "I want to control costs through ABC method". In another situation, Hafizan (P66, 2) has seen the objective of transfer as "seeing solution to reduce cost" as he said, "If you reduce cycle time, reduce assembly time, reduces the difficulties in the process of installing these components, it will make the time shorter and its cost also can be reduced, then, we can omit the operator extra work and OT". Another participant, Faiz (P68, 2) also expressed of "having objective to reduce cost" for his transfer strategy by saying, "I have intention to apply ABC to reduce the cost". Next, another participant, Izwan (P69, 2) also "identifying objective to reduce expenses" as he clarified, "Judging possible of the outcomes from ABC application". In summary, participants clearly identified that these transfer objectives may be a good strategy for ABC Implementation.

Decision making support as the strategy.

In implementing ABC to support decision making process, another participant, Rahmat (P61, 2) expressed his view on "supporting decision making process". He was "justifying decision on changes he made for replacements of production tools" by saying, "To replace, we must evaluate it cost first, since we have used it before, we based information from the previous one". In similar situation, Hafizan (P66, 2) expressed on "making decision process to reduce cost" by saying, "If it cause us lost, we should stop the process, ... because, for example we have performed the bending process, we move the spare part only, after bending and stamping processes, we ship the finished product to customer to be installed, so

we do not taking the risk". ABC Implementation strategy also has an objective to solving financial issues in a company as was expressed by Salwa (P64, 2) who clarified on "connecting the ABC usage to solve financial issue". He said, "For example, to solve engineering problems related to finance". Finally, a participant has perceived the transfer strategy objective as "developing leadership position in the industry". Mukram (P72, 2) clarified this issue by his statement on "clarifying the leadership position as Implementation objective" in order to develop the company's competitiveness as he said, "This principle must be clearly understood, because if we do not clearly understand the principle, it would not able make the implementation of ABC method to bring us as the winner in our business in the long run. The objective may be achieved by having implementation in supporting transfer strategy to reduce cost". It was also observed during interview that this participant showed his feeling of commitment, having positive attitude and also the supportive attitude toward implementation of ABC concept to reduce costs and to desire to practice the concept in his manufacturing company".

(c) Identifying situation to use

Perception of participants about identifying situations have been identified from three dimensions; identifying scope, identifying problems and identifying product and processes. In identifying the scope to apply ABC, Chai (P62, 2) has expressed his "identifying the situation to use" by stating his willingness to practice the training, he said, "As long as the scope of my work is related to the course". For identifying problem to apply ABC, Azman (P60, 2) expressed on "identifying areas to be improved in engineering" by saying, "From the engineering section, we do not have many areas that we can work to save cost, only can reduce the error during review work that needs to be controlled to reduce costs". However, for Rahmat (P61, 2) who is working in production department of the same company expressed his "identifying the lacking of cost estimation and management works" as problems that need to be addressed by saying, "For this thing, after we receive it from engineering, we do not have the proper staff for doing cost estimation, for work planning, however for the new management, it should be available of these responsibility". Relating to this issue, Salwa (P64, 2) also expressed her "looking

forward to identify situation" in the transfer strategy by saying, "Maybe, after I am employed, I will be able to relate the problem that I faced at my work using this knowledge I learned". In identifying product to use, Muhammad (P65, 2) expressed on "identifying situation to apply ABC" as the transfer strategy by saying, "If the cost issue is belong to this analysis, then we will do it. If we do improvements, we must justified to if we want to delete those activities in order to improve the cost of the product and by checking either the solution will contribute benefit to the company". Another participant, Azman (P60, 2) also expressed on "identifying areas to use ABC" during his formulating the transfer strategy by saying, "In engineering section, there are not many areas that can be improved. However, at production, there is lot of possibilities, not in engineering". Next, Muhd Fadli (P8, 1) also "identifying situation to use" by saying, "I need to analyse the cost of keeping rejected materials, for example, the cost is increasing at our warehouse section, we need to reduce this cost". Similarly, for Hafizan (P66, 2) also expressed on "identifying situation to use ABC" as the transfer strategy and he said, "Now I need to do analysis on the assembly process, to see if we do not do the assembly process at our, what will be the effect to our company's cost, because from the process we have detected too many rejects".

(c) Identifying resources

Identifying resources that were needed to impalement ABC was another objective identified by participants who wanted to apply the training into their work place. These issues included; identifying information needed, identifying supporting staffs to assist, tools available, the champion/leader and the expert.

Identifying information needed.

Relating to identifying information needed to implement ABC, Azman (P60, 2) expressed on "identifying information availability" when considering a transfer strategy by saying, "The information is available, but it was stored only for the later use, when we need to make order on consumable items, such as drill bits". Another participant, Jason L (P71, 2) identified for his staff support for collecting data on "the information and resource requirements" and on "perceiving the crucial

of support staff in providing required information” by saying, "So, I make sure my staffs give me the data, even though in form of a sheet of gross data, never mind, then were fine it over a period of time".

Identifying tools available.

In identifying the tools for transfer, Rahmat (P61, 2) has clarified his "personal identifying resources needed" during his transfer strategy formulation as he said, "Now, we already satisfied with our foremen, to distribute work to semi-skill workers for easy work, while for complex work, we will have a person-in charge, so we have to discuss with the foreman to do this". In identifying tools for transfer strategy, Zainuddin (P63, 2) expressed on his concern where to locate the required information to solve problems as he said, "When I am required to do estimation on the completion time, I will make some analysis using the Excel file and the process lay out information".

Identifying the champion/leader and the expert.

For identifying the champion/leader to initiate and lead the implementation of ABC, Fadli (P67, 2) has clarified his view on "leadership needed to implement ABC" by saying, "I think on the implementation of ABC, I wanted to implement, however I am still new at my work, still not much having influence, since we need to influence people to do". In identifying the expert to guide the implementation, Mukram (P72, 2) has expressed his view on "preparing resources to implement improvement through ABC" by saying, "That we must be prepared to improve ourselves with all that we can to ensure our success in doing the improvements".

(d) Identifying approach to use

Identifying approach were mentioned by participants, which included, identifying steps to implement ABC, identifying area to be focused in Implementation, planning for implementation, analysis methods and on relating ABC to daily practice.

Identifying steps to implement ABC.

For identifying steps to implement, Azman (P60, 2) expressed his view on "identifying how to implement training" as the transfer strategy by saying, "the project manager should determine and think on the how, then I will ask information from Rahmat's section relating to process time".

Identifying area to be focused in Implementation.

Another participant, Rahmat (P61, 2) expressed his view on "identifying the focus area of improvement" by saying, "I want to make work done effectively, what I can help, I need to show them from the start". In addition, he also expressed his view on "identifying procedure to use" as transfer strategy as he said, "Study a process, follow the step, and do the easy first". Next, Jason C (P70, 2) expressed his view on "initiating ABC through networking" as he said, "When you have them during the training, so from those contacts, you can go on". He also suggested that we gradually refining the data collection at later stage as part of the Implementation approach by saying, "We keep on improving the data collection system, so to improve the accuracy of the data". Referring to identifying types of activity to be focused on during implementation stage, Azman (P60, 2) clarified the "suggesting improving and costing" as the transfer strategy to focus for improvement by saying, "We try to do and use the same template and also using the similar approach". In addition, he also expressed his view on "suggesting cost focus strategy" to be chosen on the transfer strategy as he said, "we must separate the cost of production that should be allocated for production only. In supporting to this strategy, Chai (P62, 2) reminded on "targeting the focus of ABC Implementation" by saying, "...developing manufacturing software that is related to cost calculations". Later, Izwan (P69, 2) expressed his view on "choosing the suitable approach to reduce cost" by saying, "But in certain ways, we will try to reduce costs in production". Next, Jason C (P70, 2) also described his experience related to "choosing an approach on cost control strategy" by saying, "I mean you start to focus on process, more to work such as man, method, machine and material, all these four areas, improve these 4M, in order to reduce waste". Finally, Jason L (P71, 2) confirmed this finding by saying, "We identified key result areas, my key result areas in my terms of costing, we know exactly where are the key results areas, we just key in

data to our key result areas, then we start to analyse, for example, I am in concrete business, we identified that our lorry is our biggest cost, since we have a lot of its expenses, diesel and others".

Planning for Implementation.

In identifying planning as an another implementation strategy, Rahmat (P61,2) revealed his "clarify planning needed to implement the strategy of transfer" by saying, "Because we have to open up all the drawings, check its sizes, how much more of this all have to have planned". Further more, Salwa (P64, 2) also expressed on "preparing herself to implement ABC as part of transfer strategy" as she said, "First, we need to be highly motivated and consistent to implement this concept, second, sincere, and third, not easily giving up".

Method of analysis.

Relating to method of analysis, Zainuddin (P63, 2) clarified on "describing approach to gain knowledge" in order to gain access to information needed, as he said, "In terms of business, I only referred to the old records as well as to search frommy existing knowledge that was available to me" and "For example, when I should make an estimate of UPH for a new product, I will refer to our existing products information and make a par comparison with the new product". Next, Jason C (P70, 2) also made his suggestion to "re-branding ABC training objective to attract participants having a metaphor that could be related to the transfer strategy" as he said, "Simple things, we can pack it to make it very attractive to make people buy".

Relating ABC usage to daily work practice.

Finally, in identifying approach to relate ABC to daily practice, Izwan (P69, 2) expressed on "relating ABC with daily practice" as his transfer strategy as he said, "Yes, there is actually available in PS Network, and actually we all here for every month, each individual must has a cost buster session, that is targeted to reduce operation cost".

(e) Identifying constrain to use

Referring to identifying constrain to implement ABC in work place, there were five challenges identified from participants' experiences. These constrains included; the challenge to get staff support, difficulties to get expertise help due to lack of practical experience, cost areas were beyond management control, limited scope of improvement and lack of priority over other initiatives.

Challenge to get staff support.

Relating to challenge to get staff support, Zainuddin (P11, 1) expressed his concern on "predicting challenge to get staff support to implement ABC" during considering a transfer strategy, as he said, "However, it was difficult to get all members to support this effort". On difficulties to get expertise for help, Mukram (P12, 1) also expressed his concern on "expecting to get expert help of the implementation" as reflected from his statement, "For the details of implementation, it can be implemented if with the assistance of a skilled person". In addition to this issue, Azman (P60, 2) also expressed on "identifying challenge to get experts to guide the Implementation" during considering the transfer strategy as he said, "It is like what you suggested was too large for a person like me, except there is a person that has this experience". Fadli (P67, 2) has added his comment on "hoping to get experts to help Implementation" by saying, "Other than to get further guidance, I will seek guidance further from those who are more expert".

Costs were beyond management control.

Another constrain raised by a participant, Azman (P60, 2) was related to "costs was beyond management control". This issue on the present of constrain in the workplaces was due to unable to have a control on certain cost as explained by him as he said, "We only have to buy from local supplier, cannot directly import it. The cost constrain is to obtain raw materials, we can do nothing about that". In addition to this constrain, he also identified another constrain on "limited scope to do improvement". He said, "Not possible because for engineering section, we have made to the maximum of 99%, that is minimum 20 mm as we did not take 25mm. The structure we have quoted was at the minimum specification". However, for

Rahmat (P61, 2), he expressed another issue on "identifying source of cost problem," as reflected from his saying, "If you use the manual method, people can produce waste through higher reject, even though it can be reduced, because if use the manual method, there is a lot of rejects". Here, he stated the limit of improvement, as here counted on "the limits to improve and" as he stated, "Normally, it can not be reduced further, because we do not know the things that we should be targeting for". Next, Faiz (P68, 2) clearly expressed on "perceiving the lack of opportunity to use" as reflected from his statement, "So within the scope of my work, it can be quite difficult for ABC to be applied". Finally, in identifying constrain of the lack of priority given to ABC initiative over other initiatives, Jason C(P70, 2) expressed his judgment on the priority given to companies' bottom line instead of focusing on process. He describes this issue by stating, "As long as at the year end period, the company makes profit, then, they are happy. So, most companies were only focused on the bottom line, not able to shift the focus onto the process". Another constrains voiced having by Faiz (P68, 2) was related to lack of ability to identify situations as mentioned as reflected by his statement, "I'm not sure yet At present, I have not currently able to practice yet".

4.3.4.2 Transfer Implementation

Among three areas or properties identified for transfer implementation were; determining the level of implementation, doing analysis of the operation and determining the process costs. Referring to determining the level of application, Jason C (P70, 2), expressed his experience on levels of ABC usage by saying, "Some of them use it, but not fully, but others may use it until almost give up, may be examples of the success stories can help them to recover". Another participant, Jason L (P71,2) described on the use of ABC to measure the overall company's financial performance as he said, "we used ABC to implement this EBITDA (i.e. Earning Before Interest, Taxes, Depreciation and Amortisation) very, very effective and very powerful but it need time to show the result". Next, Azman (P60, 2) found the level of ABC implementation at his work place is to improve the accuracy of estimating a new project proposal, as he said, "Previously, we lost a lot of bidding

for jobs, because we cannot control the cost of our products, we lost to Korean companies, they made it by themselves, however we have to purchase it from outside. Since the cost we cannot control, when we bid, the result showed that we lost. Job lost was due to our cost exceed them nearly three million. Therefore, when we compete with over sea companies, we lost". Relating to do analysis on the operational cost, Jason L (P71, 2) said, "I would like to share my company's experiences; I have been using Activity-based Costing in my company for the last year. We have just based it (i.e. cost analysis) on simple spread-sheet analysis of data". Another participant, Zainuddin (P63, 2) described the use of ABC in his work to analyse operation cost as he remarked, " I am working as Manufacturing Engineer, which requires me to ensure on time delivery, control labour and material cost and also to made improvement on the processes, ABC method is suitable to the work I am currently doing". Finally, Jason L (P71, 2) expressed his experience on "focusing to process costs" as he said, "So, ABC gave us awareness ABC to constantly focus on our process cost". Another participant, Vincent (P73,2) shared his experience on using ABC to determine the process cost, as he said, "I wanted to use ABC (i.e. to calculate process costs) to justify the implementation of counter measure procedures that I added to the production line to reduce the defective product".

4.3.4.3 Perceived Organisational Results

Among seven properties related to perceived by participant on the result from ABC implementation were; reducing operation cost, improving customer relationship, improving supplier management, promotes creativity, improving performance measures, improving business strategy and decision makings and building cost leadership position.

(a) Return on investment of the company

In improving return of investment (ROI) and profit of the company, Jason L (P71, 2) recounted his experience on "having higher earning per unit by 15-20%" by saying "In terms of the earning per unit, I think my earning per unit is higher than the industry average's earning per unit of about 15-20%, so this is my business success experiences". Researcher has performed financial analysis based on the financial statement reported by the company's participant and found that an increase of 172 per cent on return on equity was achieved (i.e. from 3.3 per cent in year 2010 to 9 per cent in year 2011), which supported the finding from interviewed data. On "comparing the company's profit with others" Jason L (P71, 2) expressed that, "the increase of profit was the result of ABC implementation". In addition, he expressed that his company's profit performance is higher than industry's average, indicating it by saying, "That's why, I am saying that as the result, my company profit on the average is higher by 15 to 25% than my competitors, all because it all started with the ABC implementation". The financial analysis made by researcher on the financial statement reported by the participant's company showed that in year 2011, it has achieved ROI of 9 per cent as compared to the average ROI of 6.1 per cent achieved by other three companies (i.e CQHB, LFB and CEPB) in the same industry, which supported the finding from interviewed data. The overall assessment of the latest financial statements of the participant's company also classified the performance as significant (Appendix D7).

(b) Reducing operation cost

Other implementation ABC results perceived by participants were; reducing operation costs such as lower overall company's cost, accumulating saving from all areas of business, having benefited from ABC usage through lowest operation cost, managing cost lower operation to provide better discount, product cost reduction, lower expenses on tires expenses, having awareness and being focus on improvement and on company's performance. Jason L (P71, 2) expressed his perception on "having benefited from ABC usage in terms of achieving the lowest

cost" as indicated by his statement, "ABC has led to tremendous benefits to my company bottom line. As a result, I think my company is now one of the lowest costs". He also stated of achieving "the lower expenses on tires expenses" by saying, "For example of my tires costs, in 2008 the dollar cost of my tires in RM2.88 per unit load, but even for last year the cost has gone up tire by 30%, and if based on the 2008 cost it should be around $2.88 \times 1.30 = \text{RM}3.85$, however the result of my tire cost for the last year has gone down to RM1.45 per unit load". On concluding on lower overall company's cost, he said, "but in order to achieve the saving, you need to take action in other areas, for example, I get all my lorries to install with GPS, but at the end of the day, they are still lower overall cost. The implementation of ABC has also resulted on reducing product cost by over 30% as reflected by his saying, Another example is my cost is RM60 but my last month figure has gone down to the cost of RM38 to RM40. We are talking, despite the internal cost has been increasing; our cost has been reducing by over 30% because of the use of Activity-based Costing". Another participant, P66_Hafizan also expressed his agreement on the benefit from using the training to reduce production cost through reducing assembly cycle time as he said "I used the knowledge from training in design jig and fixture to reduce assembly cycle time, when the difficulties on assemble product is reduce, then cycle time will be reduced and assembly cost will be reduced". In addition, Jason L (P71, 2) claimed the result of accumulating saving from all other areas of business operation has also promoted on developing culture of saving throughout company, indicated by his claimed, "The cost are very low, and our cost become so competitive, so here you save a dollar and then, you save another dollar and at the end of the day it made up a lot of differences". Due to ability to manage his company at lower cost operation, he was able to provide better discount to his customer, which directly improve customer retention, indicating by his saying "I am able to collect credit from our customer very fast, because our cost very low, and I am able to give back to our customer very well, for example, instead of RM100, price I am able to cut down into RM80, RM20 discount, we are very happy to give to our customer". The inspection on document showed the listed price for ready mix concrete grade 20 published by the participant's company was RM190/m³ (before discount), about the same price of recommended by CIDB Malaysia (i.e. RM188.30/m³). By giving back RM20 discount on the RM100 of the normal price, the company can offer very much

lower price of the product than the competitors, which supported the finding from interviewed data on the product cost reduction made by the company. Finally, inspection of the participant's company has provided further evidence it continuously effort in reducing waste in relation to keep its sustainability mission (as shown in Appendix D7 of the assessment summary).

(c) Improving customer relationship management

Participant also perceived the benefits from ABC implementation were; relating to improving customer relation such as ability to manage cost leading better leading to customer gain, having better position on customer management and benefit from passing benefit from better supplier management to customers. Jason L (P71, 2) expressed on ABC benefit that has been passed from supplier to his company, then to his customers in terms of lower the product's price as indicating from his words, "I pay my suppliers very, very fast, I give them the volume, as the result, they give me very cheap price, so I give my customer very cheap price too, since I get it very cheap, so everybody benefits". He explained that this benefit was due to the ability in managing cost better that has led to better customer gain. He also said, "I am able to collect credit from our customer very fast, very low, and I am able to give back to our customer very well, for example, instead of RM100, price I am able to cut down into RM80, RM20 discount this we are very happy to give to our customer". Researcher has performed financial analysis of the financial statement reported by the company and found that an increase of 42.7 per cent on debtor turnover ratio (i.e. from 4.1 times in year 2010 to 5.8 times in year 2011 represented by a reduction of debt collection period from 89 days to 64 days) which supported finding from interviewed data.

The participant perceived as "feeling in better position on customer" by "improving overall customer management". This fact was indicated by Jason L (P71, 2) words, "So you can rate your customers, and you are at very powerful position, once you start to choose customer, you are in the blue ocean business". Therefore, he perceived on "having the power to choose customers" since his ability to create a better customer relation image, indicating by his words, "When I do not

sell to some customer, they keep calling me, and ask me why I do not sell to them, insisted me to sell to them, so the boss of this company call me, I said I did not payment from you, then straight away before the new year, I received 2 months of payments from them of a few hundred thousand, because they get RM20 saving for 10 cubic meters, they made RM200,000 of saving, if they buy it from me, to them it is so valuable, so I guess is a result of ABC. All started from we control our cost, we give the benefit to customer". An inspection made on the policy documented by the participant's company showed the high value emphasised on customer, stating that the company is "believing customer as important asset of the company", which supported the finding from interviewed data. More over, the assessment of the current participant's company profile sheet has provided further evidence of the effort in "improving customer relation" through providing efficient and quality services (as shown in Appendix D7 of the assessment summary).

(d) Improving supplier management

Next, on improving supplier management and gaining better performance as compared to other companies and improving suppliers benefit relationship", Jason L (P71, 2) expressed as "connecting ABC Implementation to provide benefits on suppliers relation", a result of improvement he made on his company's supplier efficiency, indicated by his words, "We also can control our other costs such as our GPS, which traces our cost, so once we focus on the activities, the result are tremendous". Consequently, when "comparing performance with other supplier companies", he concluded his company's performance related to supplier performance has improved as a result of using ABC. He said, "My supplier, even I call them for help, they respond very fast, generally treat me that way because we pay them fast and we give them the volume, but if this supplier treat others with similar situation, they may come in tomorrow". Researcher has performed financial analysis based on the financial statement reported by the participant's company and found that an increase of 49.5 per cent on creditor turnover ratio (i.e. from 4.0 times in year 2010 to 5.9 times in year 2011 represented by a reduction of credit payment period to suppliers from 92 days to 62 days), which supported the finding from interviewed data.

(e) Promoting creativity culture

Another participant's perception regarding the result of ABC implementation was related to improving culture of creativity within the company such as seeing it as a creative process, seeing creativity as part of important concept to the company and indirect effect of implementing ABC that led to better solution made in other part of business problem. Relating to this achievement, Jason L (P71, 2) expressed his perception on "connecting the ABC implementation to other solution" such as overall supplier management, which has been improved, as he clarified by saying, "Now all our lorries are subscribed to GPS company, we can even tell the GPS company that their GPS system got problem, yesterday my lorry at certain site they did not capture, so I can tell them, you give me discount because your system was imperfect". An inspection made on the policy document on the participant's company has clearly identified other parts of business problems on environment and safety. The document provided clear solutions to environment on reducing environmental impact to communities with "no wastage policy to ensure sustainability and through working closely with environmental authority and sharing knowledge with peers". It also provided clear solutions to safety by placing the highest priority on the health and safety of employees, customers and the general public through "striving for continuous improvement through engaging with the authority and professional bodies, promoting the awareness in workplace, ensuring staff training on safety and health, providing them with current best practice, taking proper measures on hazards issues including unhealthy, unsafe work system, unsafe acts. The above measures have added evident to support the interviewed data. This incident can be related to effort making the company's management on "seeing creativity as part of the transfer process". In this issue, he said "I guess in order for a particular company able to sell at particular business, of course, using the right method is very critical, the fundamental of adopting of this, behind is the understanding the word call creativity". Thus, he expressed on "perceiving ABC training transfer as creative process" saying, "To me, this ABC method is also very creative, something different from the norm...successful people do not do different thing, but they do thing differently". An inspection made by researcher on the mission statement of the participant's company has clearly spelt out on "developing the potential of each individual staff through creating learning

culture in organisation”, which is done through providing “continuous learning culture” and “supporting staff training” as identified from the assessment summary of the participant’s company profile sheet, that provided further evidence of the effort (as shown in Appendix D7 of the assessment summary).

(f) Improving performance measures

Another aspect of perceived results experienced by participant was on "improving performance measures" in the company such as the ability to use ABC for monitoring financial performance. To describe this issue, Jason L (P71, 2) expressed on "using ABC for monitoring financial performance" to improve the company's performance measures as reflected by his statement, "We used to implement this EBITA very, very effective and very powerful, but, it need time to show the result". Another participant, Jason C (P70, 2), also expressed his agreement on the ability to use ABC for monitoring financial performance as he stated, “that is activity-based management (i.e. when looking ABC from management view), the image of costing is away, that mean, not much calculation any more, but stress on management, the manner or way we manager our activities in order to gain maximisation of profit, which is the bottom line in out business”. Furthermore, the use of ABC has also lead his company "to have established KPIs on key result areas” in order to monitor performance in critical areas of the company operations, as reflected by Jason L (P71, 2) statement, "The use of activity based costing, when we are focusing on activities, lead us to have KPIs on key result areas, such as KPIs on diesel, KPIs on other major parts of spending, example of maintenance of lorries, which are considered as the major costs". Researcher has performed financial analysis based on the financial statement reported by the company’s participant and found an increase of 42.2 per cent on inventory turn over ratio was achieved (i.e. from 4.1 times in year 2010 to 5.8 times in year 2011, represented by reduction on inventory period from 90 days to 63 days, respectively), which supported the interviewed data. In general, the assessment of the current participant’s company financial statement identified a significant impact on the overall improvement at the company level (as shown in Appendix D7 of the assessment summary).

(g) Improving business strategy and decision makings

The Implementation of ABC has also led to "improving business strategy and decisions making process". These were related to the ability to use ABC as a tool to compete in business and using the ABC analysis to make long term decisions, providing justification using ABC analysis, using ABC to analyse asset performance, structural changes as a result of using ABC, and believing the need to implement ABC to all sectors of the company.

In relating to the above issues, a participant, Vincent (P73, 2) shared his experience on "the use of ABC analysis to make long term decision", as he stated, "I had my experience doing production cycle time, sometime is very hard to decide the production procedure, if we need to add another two processes that were time consuming, I mean longer turn around, but in the long run it really can reduce the overall cost...". Next, Jason L (P71, 2) expressed his perception on "providing justification using ABC analysis" as he said, "The justification to do that is all start with this ABC, the concept to monitor that return we used, by re-focusing on right process over bottom line". Another participant, Vincent (P73, 2) agreed on providing justification using ABC analysis as he stated, "I wanted to use ABC to justify the implementation of the counter measure procedure that I added to the production line to reduce the defective product". Further more, Jason L (P71, 2) also voiced out the effect of using ABC that has led to create operational result that has changed his business structure from bottom line focused to process focused. He said, "Normally people only look at the profit and loss, and they look only at the bottom line, but as long as the processes are right, then the bottom line, you do not have to worry, it is always in black". Another participant, Mukram (P77, 2) also expressed his agreement on the change of business structure from bottom line focus to the use of ABC as a tool to compete in business". He stated that, "the implementation of ABC is not just improving the profit performance of business, but also as a tool to overcome the competitors". In addition to that view, Jason L (P71, 2) made another remarks to explain on the reason of his company that was able to use ABC analysis in "making decision on replacement of assets". He said, "So, when the lorries are at certain age, because of they activity based costing, we

could determine if the lorry maintenance per unit is so high just like maintenance cost of machines in production are too high, then we replace the lorry and buy a new one. Another effect on using ABC analysis was ability to make better long term business decisions". Researcher has also performed financial analysis based on the financial statement document inspection as reported by the company's participant and found that an increase of 45.1 per cent on return on asset ratio was achieved (i.e. from 1.5 times in year 2010 to 2.2 times per cent in year 2011), which supported the interviewed data. Finally, Mukram (P72, 2) expressed on "the need to implement ABC to all sectors", as he stated that, "the implementation of ABC is not just to achieve the goal of business, but more importantly, is to do some improvement to all sectors, we improve business, industry and also our community".

(h) Gaining for cost leadership

In terms of gaining cost leadership position in business, participant perceived the use of ABC from the training the many positive results such as; gaining advantage due to low company's operation cost, better business model as compared with others in the same industry and higher profit margins as compared to other company's profit margin in the same industry. Relating to these issues, Jason L (P71, 2) perceived the implementation of ABC on "gaining an advantage due to lower operation cost", which has made his company to become a more competitive and to have better performances as he said, "When our costs are low, my company has an edge over other company, where is for big companies, cost is their biggest challenge, where is, in my company, cost is our advantage". When he was "comparing company's profit with others using the industry's average value", he said, "That's why, I am saying that the result that my company's profit on the average is 15 to 25% higher than my competitors. It was all because of the ABC". Based on document inspection on the company's published price (e.g. ready mix concrete, grade 20 of RM190/m³) and by having a special discount of 5% to 10% of the published price, the company can offer much lower price of the product to its customers (e.g. between RM180.5/m³ to RM171/m³, which was lowered than recommended price by CIDB Malaysia (i.e. RM188.30/m³), which showed

supported evident to the interviewed data. The financial analysis made by researcher on the financial statement reported by the company's participant showed that in year 2011, it has achieved ROI of 9 per cent as compared to the average ROI of 6.1 per cent achieved by other three bigger companies (i.e. CQH Berhad, LF Berhad and CEP Berhad) that also operate in the same industry, which supported the finding from interviewed data. Finally, to add to this advantage, Jason L (P71, 2) was also "comparing his own business model with others in same industry" in terms of customer performance, thus, he perceived as having better business model in dealing with his customers. He said, "One of my customer called me about a month ago, as we give our credit term, the credit terms in our industry is 60 days, but we give credit terms to our customer for 30 days, so my customer are asking us why we do that, so I say because we operate on different bases of the business model".

4.3.5 Factors Influencing Transfer of Training

4.3.5.1 Knowledge, skill and experiences (KSE) and Pre -training Self-efficacy

There are seven dimensions for the sub-categories of knowledge, skill and experiences and pre -training self-efficacy that affecting transfer of training.

(a) Knowledge, Skill and Experiences (KSE)

Knowledge

Knowledge is referred to the highest education level the participants have acquired during his/her studies. The education level were classified into three groups, having degree or higher in engineering, having degree or higher in none engineering areas and having diploma or certificates. Table 4.7 and Table 4.8 show the education background of each group and the composition of KSE of participants respectively.

Table 4.7 : Education level of participants

Classification	Quantity
Degree in engineering or higher	13
Degree in non engineering or higher	5
Diploma or certificate	2

Table 4.8 : Knowledge, skill and experiences and pre -training self-efficacy

Codes for KSE and pre-training self-efficacy	Sub-categories
Education (i.e. having degree in engineering or non engineering or not having any degree)	Knowledge, skill and experiences
Skill - having attended CPD or having skill from practice	
Work experiences	
Work position - owner/manager/engineers/supervisor	
Feeling confident prior training	Pre-Training Self-efficacy
Feeling confident prior training	
Having experiences prior training	

Skill

In term of skill that participants were possessed, various levels were identified. However, for the purpose of classifying them, they were group into two, having skill and lack of skill. For those were having skill, they were indicated by their previous continuous professional development (CPD) attended or having skill from practice that related to ABC costing or cost improvements prior to ABC training

(b) Having attended continuous professional development

Azman (P1, 1) attended related CPD previously to ABC training, considering he as "having prior training skill". He also expressed with confident on

his own ability prior training indicated on his self-efficacy. He said, "I do have some experience from previous training in the field of control and operating costs involved with the estimated cost for the design I made for my company's tender". In Addition, he has 15 years of working experiences. Another participant, Shikh (P3, 1) also expressed on "attended CPD previously" that indicated participant prior ABC has skill training as he conveyed; "I have previous training experience that was related to cost management and control. I have some knowledge about costing". Shikh (P3, 1) has over 18 years of working experience. Another example, Jason C (P4, 1) indicated on "previously attended CPD related to cost improvement" in accounting area and look ABC method from accounting perspective, he said, "my previous training experience was related to company accounting".

(c) Having skill from practice

Izwan (P10, 1) was relating ABC practice at his workplace as he said, "I have to think and give ideas and suggest improvement to reduce cost of operations". Relating to cost improvement, he added, "for example like me, I have made improvements in computer usage". The practice makes him aware of ABC usage. Describing on his work, he continued, "I am now, working in R& D department, so when there is a new part, I have evaluate for the part, DCT-codeless digital telephone. We as engineers have to decide things that we can do or can not do, or may be can do but may cost us lot. For example, rubber switch that has two parts, one part of the function key and another is a key trans part, at the function key, we will use other material as well as in the key trans that uses other material. Through our study of factors that will cause higher costs, so we have suggested for using the same material, but we paint with different colour". Chai (P13, 1) indicated his skill on the present job as software developer as he said, "My present work related to developing software for manufacturing companies". Chai has more than 10 years of experiences in the present job. In addition, Azman (P60, 2) who has been working in cooled heat exchanger manufacturing plant has previous experiences related to project management practice, "I started work at Sime Darby, in the project section, then moved into MOX yes it is, it is in the project".

Rahmat (P61, 2) described his previous experience that has a connection to his present job as he said, "There, I want to calculate some alignment first. I personally have to make sure that and I can not do other work until the job is completed. He has work for over 14 years of experience. Hafizan (P66, 2) links his previous skills gains as "having to design improvement solution" as he said, "I also did design jig to reduce cycle time". Jason C2 (P70, 2), a senior manager in a printing company also possesses managerial skill and having authority to the outcomes. He has been working for more than 20 years. Another participant, Jason L (P14, 1) who is the owner of a concrete manufacturing plant has over 20 years of work experiences in managerial as well as related to manufacturing work. Mukram (P72, 2), a director and the owner of a chemical manufacturing company, who has more than 20 years of working experiences. In contrast, there was another group of participant that was having less experience in working. These participants are; Salwa (P5, 5), Muhammad (P6, 1), Hafizan (P66, 2), Fadhli (P67, 2), Faiz (P9, 1) and Izwan (P10, 1). They belong to those who has about one year of working experiences.

(d) Self-efficacy prior training

Azman (P1, 1) has demonstrated his confident on using the ABC prior training. This can be reflected to his high self-efficacy prior to training as well as made him more positive reaction and better learning performance. At the training session, he said, "I believe, I learned something new about ABC method that I can use for cost reduction in my company". In adding to that, he showed good response when requested by the speaker during the training. He also demonstrated a cheerful person and always wanted to share experiences, problems and challenges faced in his working. Another participant Rahmat (P2, 1) also "feeling confidence prior training" as reflected from his word, "However, I was involved with the work to supervise at production operations and make recommendations to improve the efficiency of my workplace as to propose a new method for cutting the pipe component of "cool water" in my workplace. Meanwhile, another participant, Jason C (P4, 1) ABC also showed confidence in relating ABC usage to his job and believing his own ability to learn ABC. As manager of the printing factory and supervising engineers and technical job, his job responsibility included making sure

the printing costs within budgeted. He said, "Some parts of the training knowledge are related to my job and very useful too to me as a manager". For another participant, Salwa (P5, 5) also "looking forward to use the knowledge", that showed by her belief on her own ability to learn and also having positive attitude toward learning as she said, "If there were opportunity in the future, I will attend this kind of seminars and training". Muhammad (P65, 2) showed on having prior knowledge of training to understand training better and also feeling confident prior training as he said, "I think, this things, I am still new. So, my feeling ... we must have a basic for us to know". Muhammad (P65, 2) showed that he has prior experience on problem solving that affecting his feeling confident his prior training, he said, "The experience we have when studied at the university previously, all we have to make such as assignments, so if we had our work place, that teaches you discipline and self-reliance". Hafizan (P7, 1) demonstrated his confident by relating with his achievement on having made improvements as he said, "I have designed jig and fixture, a customer comes then he likes it, he praise our good work, this is an achievement that we feel important to us, as we have and solve a problem, that is satisfying". In addition, Zainuddin (P63, 2) described his previous experience on cost improvement prior training as he said, "When I worked in composite section of a yacht manufacturing company before as a design engineer, I have done a lot of process improvement in terms of production output, effective working methods, better work processes and others".

4.3.5.2 Work-related Personality Factors

There were seventeen dimensions for the sub-category related to work-related personality factors as shown in Table 4.9 above. The next sections elaborate further each of these factors that were identified from data obtained from participants' own words or statements. The factors identified were; job and career utility, job involvement/ organisation commitment, internal locus of control, and attitude toward learning.

Table 4.9 : Work related personality factors

Codes for work related personality factors	Sub-categories
Job Utility - working for job advancement	Job/Career Utility
Career utility-working for career advancement	
Professional Utility - working for professional development	
Commitment to job performance	
Supporting company's management	
External locus of control	
Communicating for approval	
Internal locus of control	
Having authority to outcome	
External locus of control	Locus of Control
Communicating for approval	
Internal locus of control	
Having authority to outcome	
Having continuous learning attitude	Attitude Toward training/ learning
Positive attitude to learn-looking forward to learn more	
Learning through challenge-preparing for challenges to learn	
Learning from experiences	

(a) Job and career utility

The properties for job and career utility were; working for career advancement, working for professional development and working for job advancement.

Working for career advancement.

Muhammad (P6, 1) expressed the motive behind his motivation to learn the training was to "preparing self for career advancement". He said, "We may be able to learn the ABC for the future use, to build our future working career". Muhd Fadli (P8, 1) also expressed on "focusing to improve career" as he demonstrated his attention during training. Until the end of the course researcher observed him as more apparent on confidence in himself to move forward in his work. The similar motive was observed for Faiz (P9, 1) who was "looking to improve and advance career". He said, "aa ... I think to add the added knowledge for advancement in my career. I hope that I want and I will move forward and would be able to increase salaries and get promoted ...". Izwan (P10, 1) also expressed his "looking to advance career" by saying, "Because knowledge is more important for work or when we move to another company, we can use the knowledge in the other company as well". Finally, Zainuddin (P11, 1) was also "expecting to advance career" which leads him for having motivation to learn. He said, "ABC knowledge can be used in my work to help me to change myself to build my working career".

Working for professional development.

The professional development is part of career utility property that was specifically related to participants' professional development as mentioned by participants. Salwa (P5, 5) stated on "establishing self-image" through working for professional development as reflected by her statement, "To highlight this concept, so that concept will be considered as a different approach from other solutions. This approach will also help to improve the future of my career". Related to motivation to transfer, she also said, "I need to be highly motivated and consistent at work, to implement this concept in order to become visible with different and creative solutions, and sincerely and not easily giving up". Muhammad (P6, 1) expressed

himself on "conforming to professionalism" as an engineer by saying, "I feel, as an engineer must has interest in working, then to have a responsibility" then he added, "I feel the need to study more to further improve and ourselves , we need to increase our knowledge and skills to become even better". Based on researcher observation during the training session, the participant showed enthusiasm in learning the ABC method as he wanted to increase his knowledge to improve himself and to become a better engineer in order to prepare himself for a better future in his career. He believed that engineers should have an interest in the work and have a good responsible for work, in order to progress by continuing to learn more as well as the need for him have more work experience to enable him to move forward as a successful engineer. Adding to this agreement, Hafizan (P7, 1) said, "We feel like to have other problems, so, we will try to solve them to increase our experiences in our work, this is a satisfaction". This was also true for Muhd Fadli (P8, 1) which has pushed him on "having motivation to learn as reflected" by his statement, "ABC will be useful later to help improve my performance in my work as well as to be appreciated by our boss and colleagues". He added his attention by saying, "if I can, I want to master the ABC method, and can implement into my company. Also, I would like to be a "key player" in the organization to reduce costs". Finally, Chai (P13, 1) stated on his high confident to use ABC and was looking to become ABC competent as he said for applying the ABC method as "to make myself more knowledgeable and competent to use of new concept and method in cost improvement".

Working for Job Advancement.

Another area of career and job utility was related to "working for job advancement". This factor was voiced out by Zainuddin (P63, 2) who defined on "career success as accomplishment of work" as he said, "Significant progress in my career is when we can perform the tasks given to us well". Hafizan (P7, 1) also expressed on "wanting to implement to work place" by saying, "Yes. I think ABC would be useful to help improve my efficiency at work as an engineer in the section of process of cost analysis". He continued, "we feel like the have more problems, so we try to solve in order to gain experience to our work, that are a kind of satisfying. Another participant, Fadhli (P67, 2), agreed to this statement on "hoping to be

visible in company" as reflected from his statement, "When we feel more important than others, we are accepted as a key player, and accepted in the company...we are valuable to the company".

(b) Commitment to organisation

In describing what participants' mean as organisation commitment, participant Azman (P1, 1) expressed on "showing commitment to organisation" such as he showed appreciation to speaker at ABC training represented the company he worked and also on his description of his responsibility in engineering section to design his company's product. He said, "I am in engineering section, my work is to design, calculations, review drawing after completion, then all must be send to customers, so when the client agreed for the order, which is normally takes 6 to 8 weeks, or if the job is big, sometimes it may takes up to a year". Rahmat (P61, 2) also expressed the connection on his work improvement success efforts to his confident by saying, "If we adopt oxy-fuel cutting machine, we have to grind again, the problem is, if we made mistake and not enough, it would not be use for that...but by using band saw, we do not need to grind anymore, just check if ok can install afterward". He added, "I really have to schedule in order to so to ensure those machines can fully utilised". For Zainuddin (P63, 2), he described on "identifying personal responsibility to improve cost" to show his organisation commitment by saying, "To remain committed to the work, I have to be better in controlling of work processes, manufacturing costs and can make improvement to the existing work" for his organisation. His expressed his job involvement that leads his motivation to learn as he expressed it by saying, "increased knowledge in cost control to improve operational process". Muhammad (P65, 2) also described his organisation commitment by his statement, "Sometimes at production, it needs a short time to process. So, as an engineer, we need to check the item, we have to analysis it, we have to find a suitable method to solve the problem". He then added, in relation to his job involvement, "my motivating factor I think the commitment to the work. We do not simply want to work for money, but we must have responsibility for the work we did". Similarly, Hafizan (P7, 1) expressed on "wanting to solve problems" at his workplace, he noted, "If we do work correctly,

we can solve the problem; we feel satisfying, especially when the boss gives his appreciation". Then he added, "Now I am a process engineers, I also involved taking the cycle time, I also did to detect the number of problem we have, for example I took monthly data of rejects at what percentage, I used FMEA, SPC". Showing his commitment on improving company's operation, he noted, "Now the rejected items are too much, my manager, he just re-spray, but spraying, it still not accepted, now I try to suggest to my company to study the material, after we observed how they sprayed to determine the root cause". Relating to controlling quality, he said, "Now I'd need to monitor the production line, make sure the operator is always there, you must ensure that the material which they used for production according to standards in the same time to check if there are other problems that occur during production". However, Izwan (P69, 2) showed his organisation commitment that provided to him with a positive working culture, he said, "Be honest, the factors that made me committed to work is the environment, because at the company where I work, environment is very fun". Finally, Jason L (P71, 2) showed his organisation commitment based on reasons, such as for creating better company's reputation, he said, "When I say the lowest cost, it does not mean industrially our product is at lower quality, for whatever product we produced, I matched my product quality with other bigger multinational company". He added, "I run the business, so to me, at the end of the day, if I did not make the money, so my pocket hurt and it hurt me very badly, so I need to learn a lot, then must make sure my company make money, cannot loss money, so I make extra effort to collect all these data".

Supporting company's management.

Another examples organisation commitment was on offering support to company's management as expressed by Azman (P1, 1) by his statement, "My company is also always welcome the collaboration with UTM either to help us in improving our operational efficiency or for us to provide industrial training to students so that they get work experience. He also expressed his concern to management's problem as he said, "So, for among our local companies can win the bidding, but when competing with overseas companies, we cannot compete, because never win".

Many participants also expressed their appreciation to the organiser on behalf of their companies. Rahmat (P61, 2), Shikh (P3, 1) and Jason C (P4, 1) noted, "My company also very much appreciate for this opportunity UTM provides to us". For Fadhli (P67, 2), he conveyed on "helping management to solve problems" by showing his commitment in helping to solve managerial problems by saying, "I help the management team to identify the lot, which approximately about 66 tons of reject products because of the micro". He then added to describe his attention for his support, "I can contribute to the long term problem, then I was well appreciated, that has made me more excited".

(c) Locus of control

There were two areas of participants' locus of control, possessing managerial power/authority to decide outcome and communicating for approval.

Possessing managerial power to decide outcome.

Azman (P1, 1) has showed his work as engineering manager that he was having internal locus of control. He said, "Actually what is necessary, only to keep in store and during audit, they want to see it". These were true for many other participants such as Shikh (P3, 1) who is working as manager, Jason C (P4, 1) who was possessing managerial skills as a senior manager, Mukram (P12, 1) who is having authority to produce outcomes. Mr. Mukram is businessman who is interested in using the concept of ABC to reduce production costs. Finally, for Jason C (P71, 2), who is a manager and the owner of the company, therefore, he was seen as having commitment to ensure his company's success.

Communicating for approval.

This lack of authority to determine the final outcomes conveyed by Muhammad H (P6, 1) by expressing on "requiring approval from superior" for any improvement to be made, he said, "Maybe this matter should be proposed to the boss to improve and reduce the cost of work place". This factor was also true for Hafizan (P7, 1), who "wanting for management approval" for implementing cost of control as reflected by his words, "Yes, we got to talk to the boss in order to use the

concept of ABC to improve and implement improvement". Another participant, Muhd Fadhli (P8, 1) expressed on the effort to get approval from management as he said, "I need to communicate more to my manager and to discuss in more detail". He added more by saying, "so far, I have not been able to practice this yet, because I need to communicate more with my manager to discuss in more detail".

(d) Attitude toward learning

This property related to attitude toward learning that included; learning from experiences, looking forward continuous learning and taking challenges toward learning.

Learning from experiences.

Azman (P60, 2) described a negative experience on other training before ABC training as he said, "I went to SRI training for examples. I know, but I ask more, but he did not know". To optimise, however, he likes to choose learning from experiences, he said, "For example design of the bearing before we use large size, but now small. We follow the same technology whether big or small". He added to learn on "exposing to new technology. The old parts were replaced. Use ANSYS, but do not use Cosmos". For Rahmat (P61, 2), he claimed as "having an idea due to learning from work experience", he said, "This thing is base on my experience, because I idea from my old work place, the way they did". Similarly, for Fadhli (P67, 2) when expressing related to "learning through working", he said, "I was assigned to each department, learn better and deeper, from there to add my knowledge". Finally, Fadhli (P67, 2) also expressed on "having experience to work on improvement projects" as he perceived that works assigned to him provide the way to learn. He said, "Project manager he has also assigned to the project, project to lower the defect in the product, so I thought that way".

Looking forward for continuous learning.

Azman (P1, 1) described on "wanting to join the next training" that demonstrated his positive attitude toward learning that helps in contributing to his reaction and learning performance as well. He said, "I am interested to participate

in other courses in the future if given the chance". He suggested the training organiser to conduct another training topic related to this training, he said, "Six Sigma black belt, I wait for that one". During the training, he always showed positive attitude and wanted to learn to improve his career in on ABC knowledge. Similarly, Shikh (P3, 1) who was "looking to learn other training topics" seemed to has positive attitude toward learning, he stated, "I hope to attend training like this in the future. I suggest training on lean sigma and quality function deployment". Another participant, Jason C (P4, 1) also expressed on "wanting to join the next training" as he said, "we are looking to participate again next time. I also will look forward to attend the training from UTM in the future". Based on researcher's notes during observation, he was considered a pleasant and quiet participant. However, he showed focus and deep interest in learning during the training. Zainuddin (P63, 2) also supported on "having continuous learning habit" and showed a positive attitude toward learning, he said, "I normally make references via the internet to find any information I need". Chai (P62, 2) has also expressed on "having intention to learn more" and conveyed a positive attitude toward training as he noted, ".....manufacturing related scope and new concepts". He described himself as "willing to accept new ways and new concepts of doing things". Muhammad (P65, 2) who was hoping to improve and knowledge and skill, showed his positive attitude toward training that is with his job. He said, "To be committed to work, I need to increase my knowledge and skill to be better". This factor was also agreed by Hafizan (P66, 2), as he was relating quality training to ABC implementation, as to describe his positive attitude toward learning, he noted. "The quality related training is appropriate to assist the implementation of Activity-Based Costing".

Another participant, Faiz (P68, 2) showed his positive attitude toward training by indicating that he has voluntary attended learning session during work, he said, "Every week, I will attend a class to study, even though it is not compulsory, that is my initiative". Similarly to Izwan (P69, 2) also noted on his "voluntary attending regular classes to learn" as he said, "I actually attending a study classes as well, two weeks every Tuesday there is class on Japanese language, because I work in Japanese companies".

Preparing to face challenges to learn.

Azman (P60, 2) expressed on "taking the challenge to learn" by saying, "I have learned something through the hard way that sometimes takes one to several weeks". Zainuddin (P63, 2) was also "hoping to accept challenging to gain expertise" by noted, "...can accept the change in task or new job because we can not learn something new if we are just doing the same job every day without doing something new". Similarly, Faiz (P68, 2) also expressed his readiness to face challenges as to convey his positive attitude toward learning, which has also led him to "having motivation to learn". He said, "I think, I like the face challenge aaa ... and I will or want to move forward by continuing to face every challenge that will come". Another participant, Izwan (P69, 2) also conveyed on "expecting challenging work as an engineer" in order to build positive attitudes toward learning through experiences as he said, "One of the important characteristics that I think important is taking risk, it is important that we as an engineer, we must be brave enough to try something new".

4.3.5.3 Perceived Transfer Climate

There were five dimensions for the sub-category of perceived transfer climate as shown in Table 4.10. The codes were; perceiving management support crucial, perceiving peer support crucial, perceiving opportunity to use, adopting learning culture and facing inhibitors for implementation.

Table 4.10 : Perceived transfer climate

Codes for category of transfer climate	Sub-categories
Perceiving management support	Transfer climate
Perceiving peer support	
Perceiving organisational learning culture	
Perceiving opportunity to use	
Perceiving barrier to use	

(a) Perceiving management support crucial

Regarding to perceiving management support to implement ABC method, Fadhli (P67, 2) expressed on "comparing learning to implementing" as he said, "Indeed, I think the theoretical part was easy, but to implement it is difficult". Accordingly, Izwan (P69, 2) expressed on "seeing the need for influence" in order to implement ABC", as he said, "For now, I still have not yet done anything, because I am still new in my job". He also expressed his satisfaction with supervisor's support for his work previously as reflected by his words, "The factor that because my seniors are very supportive and understanding, because I am a new person, I have asked many things to my seniors, so they are very supportive. Jason C (P70, 2) also expressed on "perceiving management support as crucial" for ABC initiative by noting, "If the management agreed with this concept, I think from there we can mould their thinking to be more focus on process, using process models, to go on activities". Similar to this view, Jason C (P71, 2) also expressed on "perceiving top management commitment as crucial" as he said, "It actually involves top management involvement, because if you want to have a certain data, if you are not persistent enough, you do not get it". He also added, "I think the real reason is for this is whether they (management) can stand up to take challenge to build their companies, such as in our case, we can see the higher grade of product that are contributing to our bottom line". He also viewed the need for leadership role to drive the initiate the ABC implementation, by saying, "The focus is now to change from the bottom line focus to the process focus, where the model may be of the top-down model and need leadership drive".

(b) Perceiving peer support crucial

Hafizan (P66, 2) has expressed his view on "evaluating his own staff performance" as he said, "The said efficiency or the accuracy.....because there are also operators that do not want to take risk (to be very accurate in inspection), he just passes through the product". Adding to this view, Izwan (P69, 2) was also "expecting support from management to implementation" by saying, "if possible,

may be some people who can guide us,..... may be the difficult part if other people do not give support for us to do ABC".

Lacking of peers' support.

Voicing the challenge to get peers support, Zainuddin (P63, 2) described on "identifying obstacle to use ABC" and perceived the need for staffs to support, he said, "But it will be difficult, if we do not get support from every member". To add to this issue, Jason C (P70, 2) highlighted on "facing difficulties to communicate to operational workers" which, he considered as obstacles to implement ABC, as he noted, "Those people in operation if you ask them, they know about these things, but they do not have knowledge to do costing those costing people they know about costing, but they do not try to understand about process.....you ask engineering people to do calculations, I do not think they keen to do".

(c) Adopting organisational learning culture

Jason L (P71, 2) expressed his view regarding adopting good learning organisational culture by commenting on "the conventional business focus on profit" as "an obstacle to ABC initiative". He believed that organisational learning culture is important and that will helps or leads to adopting the right transfer of training strategy. He said, "For SMI, they normally look at the profit and loss account and they only look at the bottom line, whether they make profit or not. He voiced out the challenge to adopt learning culture in organisation was due to some factors as he noted, "All of us in different industries, we have to find our niche, as you see, for example in the printing industry, today you sent a sample, then tomorrow, I (the customer) want or expect something, now very short time". Finally, in line with this issue, Mukram (P72, 2) expressed his view on "looking forward to create a culture of preventing wastes" in his organisation. He said, "But, for Islamic value, it is not just to achieve the goal business, but more importantly is to do improvement to all around us, we improve our business, our industry and our society". He added in describing the concept of continuous improvement by saying, "it means, the day after today should be better than the day before- that's the concept behind adopting continuous improvement".

(d) Perceiving opportunity to use

Azman (P60, 2) identified and saw opportunity to use ABC in his company as he said, "If I want to use the training at Rahmat's section, doing costing in drilling process, we can apply". In relating to this issue, Rahmat (P61, 2) also supported this argument by saying, "Here I see we use different way so incurred high costs, I usually noticed fitters cut incorrectly and then they have to make alteration, sometimes completely unusable". Hafizan (P66, 2) was perceiving on opportunity to use the training when identified a strategy to apply, he said, "We detect many rejects, that consumed a lot of time and high cost, now my company are considering to outsource the assembly, since from the analysis, the results showed high cost". Finally, Izwan (P69, 2) also described on "seeing the opportunity to implement at workplace" as he said, "For example, as I am at manufacturing sector, may be it can be implemented in the area that I am working".

(e) Perceiving of inhibitors to implement

Participants also voiced out some factors that inhibit ABC implementation in work place. Regarding to perceiving the lack of priority, Azman (P60, 2) has conveyed his view on "identifying factor hinders" the transfer of training as he said, "The engineering section is less suitable because to determine on how long to complete the drawing task, not a big issue". However, he also stated the factors relating to lack of priority or focus on cost improvements issues, he said, "People want to use this product, sometimes training are not useful. The boss said, "That should be based on the client requirement". Another participant, Hafizan (P66, 2) also showed his concern on management factors of "having priority on cosmetic features" that may become as an inhibitor for using cost control, he noted, "Before this, I took an example in my factory, we took care on cosmetic issue, look into that where the scratch occurred. Now, many products were rejected due to return scratch part by customer, for scratch parts were made from steel that we need to observe their cosmetic". Relating the influential factor, Fadhli (P67, 2) also expressed on "perceiving difficulties to encourage others to support" as he said, "I think the hardest part that is to implement this, because for myself, I am still a new staff, with

having no influence yet". Finally, Jason C (P70, 2) has reasoned out On the issue of priority as he was comparing ABC benefits with other cost control approaches, he said, "As some management were prefer to use other cost control approach". Then, he argued, "whether they justify it, or if over-cost or under-cost is another story, the bottle neck is to see whether their price is accepted or not ".

Regarding to lack of scope, Azman (P60, 2) has voiced out on "having constraint with requirement of standard" as he said, "Clients do not want to use that, and we must use SRI. They want recognition that also must be the world wide acceptance". Another participant, Rahmat (P61, 2) also mentioned the similar challenge regarding to the scope of work by stating, "If I follow my opinion, I only want to use auto process. However, we have set a procedures that approved by the customer...even though, actually by using the machines work, we produce better than using manual, but sometimes, customers still want us follow the old ways". Similarly, Izwan (P69, 2) recognised the limitation in make implementation decision, as he concluded, "We as engineers only, because at the top management, we have managers, we have a general manager, so they are monitoring what we are doing, or to accept that first, before they can be implemented". Referring the issue of perceiving lack of time, Azman (P60, 2) voiced out his view on "facing problem to estimate working time" as an inhibitor due to difficulty to collect information or data on operation. He stated, "I am in engineering section that work with draftsmen, it is difficult if I want to estimate the actual time they used".

4.4 Engaging in Training Transfer Progression

The next section of this chapter will describe the sequence of experiences undergone by trainees at each stages of "engaging in training transfer progression". This section will discuss experiences encountered by participants on the sequences of experiences in transfer process undergone by trainees. It is presented based on data of evidence derived from the participants' statement of meanings or statements made by a participant. Atlas.ti was used to analyse the relationship and the

sequence between categories that formed the model of the transfer of ABC training. In order to perform the analysis, first, “super codes” were created in Atlas.ti database, which was identified from the coded family of categories and then analysed using query toll such as “follow” and “precedes”. The output were summarised and discussed in the following section.

4.4.1 Motivation to Learn to Affect Training Performance

The result of analysis showed the coded quotations in the category of motivation to learn has the connection to the category of training performance (i.e. training reaction, understanding and ability to perform). The result of analysis also showed that the category of motivation to learn has connected to training reaction through three codes that represented by effect affective reaction and four codes related to utility reaction.

4.4.1.1 Motivation to Learn to Affect Reaction

Quotation of statements from three participants that reflected by their experiences can be interpreted from their words that expressed the connection between motivation to learn to have an influence on affective reaction on this transfer progression stages. Azman (P1, 1) expressed this connection by saying, "I would like to join other courses in the future if given the chance. My company is also always welcome the collaboration with UTM either to help us in improving our operational efficiency or to provide industrial training to students so that they get work experience". Vincent (P43, 2) noted in his reflective sheet during training. Jason C (P70, 2) provided agreement on this connection by saying, "I am the marketing man this one nothing to do with me, so you have to package your title to attract people to see the relevance of training to them. Because people see thing through their perception on what the can see, so you have them during the training, and from those contacts, you can go on".

4.4.1.2 Motivation to Learn to Affect Utility Reaction

Statements from four participants related to motivation to learn were identified to be related and to affect utility reaction on the transfer progression stages. Jason L (P14, 1) expressed this connection on what encouraged his to work as he said, "I want to understand and use the knowledge on ABC method in my concrete business supplier. My present business is very competitive and constantly need to reduce cost, to stay ahead of others in this business". Another participant, Vincent (P44, 2) noted in his reaction sheet at the end of training showing a strong connection between motivation to learn to utility reaction. Similarly, Fadzly (P49, 2) noted in his case sheet 1 received during the training as well as Ariff (P55, 2) who also noted it in his reflective training sheet during the training.

4.4.1.3 Motivation to Learn to Affect Understanding

Statement from two participants that reflected their experiences on motivation to learn can be interpreted as connected and to affect understanding on the learning stages. Lokman (P46, 2) noted in his reflective answer sheet during training for this connection. Another participant, Saffian (P58, 2) also noted the similar point in his reflective column of case study sheet during the training.

4.4.1.4 Motivation to Learn to Affect Training Self-efficacy

Statement from three participants that reflected their experiences on motivation to learn can be interpreted as connected and to affect training self-efficacy on the transfer progression stages. Malik (P51, 2) noted it in the reflective sheet during training. Another participant, Saffian (P59, 2) noted this connection in his case study note during the training. Later, Hafizan (P66, 2) expressed this connection by saying, "First of all I am now working as a process engineer and very

important for me to know about this activity based costing. Previously, I might not quite aware the important of the ABC process. But now, I have worked for many months there, I've seen ABC work in my company now, because managers, my manager was running activity based costing".

4.4.2 Training Performance to Affect Motivation to Transfer

The following quotations expressed by participants reflected the connection between training performance (i.e. affective and utility reaction, understanding and training self-efficacy) to motivation to transfer.

4.4.2.1 Affective Reaction to Affect Motivation to Transfer

There were statements made by three participants describing their experiences on motivation to transfer that can be interpreted as related to affective reaction (i.e. feeling satisfy with training programme). The statements also showed the effect of training reactions on participants' intention to transfer (i.e. motivation to transfer). First, a note made by Vincent (P44, 2) in his learning feedback (i.e. one minute paper) during training has showed support to the above connection. Second support that provided link between affective reaction to motivation to transfer was found from Fadzly (P49, 2)'s case study answered sheets he submitted at the end of training. Finally, the above link was also found from notes made by Arif (P54, 2) on his reflective sheet, he submitted at the end of training.

4.4.2.2 Utility Reaction to Affect Motivation to Transfer

Statement from four participants that reflected their experiences on utility reaction can be interpreted as connected and to affect motivation to transfer stage. Jason C (P4, 1) expressed this by saying, "I have benefited a lot from this training. I

also believe the training will help me to improve and my skill improvement cost in performing my work in my company. I will try to implement the method of cost improvement from this training in my company". Hafizan (P7, 1) also expressed his connection by saying, "Yes. I think ABC would be useful knowledge so as to help improve my efficiency at work as an engineer in the process of cost analysis". Similarly, Muhd Fadhli (P8, 1) also expressed the connection between utility reactions to motivation to transfer by a statement, "There is related connection to my work. I'm pretty sure, that ABC method can also be used to implement cost control in the service process as well". Finally, Jason L (P14, 1) expressed his connection between utility reaction to motivation to transfer by saying, "That I find out the ABC concept is very much relevant to my business and very useful to me as the person who needs to improve and the operation costs of my business. I always need to find effective methods in reducing cost, and the ABC method is suitable to be used in business operation like ours".

4.4.2.3 Understanding to Affect Motivation to Transfer

Statement from four participants that reflected their experiences on understanding can be interpreted as connected and to affect motivation to transfer onstages. Izwan (P10, 1) has expressed this by saying, "Understand the overall purpose and method of ABC in reducing operating costs and its relevance to my work. But to do in practice, they may be easier if someone is guiding us". Chai (P62, 2) also expressed this connection, he said, "I can use the knowledge in manufacturing developing software that is related to cost calculations". Similarly, Zainuddin (P63, 2) showed this connection by saying "I hope I can master this ABC method with the best to be implemented in any place where I work. I want to control costs through this ABC". Finally, Mukram (P72, 2) expressed this connection with his statement to adopt ABC, he said, "First we need to understand and realise the need for this improvement, secondly, we must practice this principle".

4.4.2.4 Training Self-efficacy to Affect Motivation to Transfer

There were statements of four participants on training self-efficacy that can be interpreted as connected and to affect motivation to transfer. Zainuddin (P11, 1) expressed this connection, he said, "I think I can practice ABC to improve the cost of the process with a little help from the experts. However, it is difficult to get all members to support this effort". Chai (P13, 1) expressed this connection to show his confidence to implement ABC, he said, "The knowledge related to cost calculations and procedures that can be applied in developing software for manufacturing companies to help them to reduce costs". He also said, "I can use the knowledge in developing software for manufacturing. That is related to cost calculations". Similarly, Fadhli (P67, 2) expressed this connection by saying, "First, of course, I can and I want to master the ABC and I can implement the company, then I can be a key player in my organisation".

4.4.2.5 Affective Reaction to Affect Utility Reaction

Statement from four participants have reflected their experiences on affective reaction and can be interpreted as connected and to affect motivation to transfer within the same category of transfer progression stage. Shikh (P3, 1) expressed this connection as he said, "I think most of the knowledge given in the training is relevant to my job as operation manager in controlling engineering operations. I will try to use the concept and strategy of the training into my work. ... I have benefit a lot from this training. My company appreciates this opportunity to provide opportunity to SMI like us. We are looking to participate again next time. I believe the training will help me to improve and my skill in performing my work in my company". Jason C (P4, 1) expressed this connection as he said, ".....the content is organised in logical way. I understood most of the training objectives. I believe I gain new knowledge on ABC from this training". Regarding the relevance and usefulness of this training to job, he said, "Some parts of the knowledge from this training are related to my job and very useful to me as a

manager". Similarly, Muhammad (P6, 1) agreed to the connection as he said, "ABC training is very useful for me to better understand the whole concept of ABC, we can use to the actual situations in our work". Finally, Mukram (P12,1) expressed this connection by saying, "I feel very happy to understand the approach of ABC method, which is suitable and effective to reduce costs, as it can be practiced in our business".

4.4.2.6 Affective Reaction to Affect Understanding

Statement from four participants that reflected their experiences on affective reaction can be interpreted as connected and to affect understanding. Azman (P1, 1) has expressed this by his statement, "Facilities and places in this training is satisfactory. I feel satisfied with the speaker presentation too. Notes and "hand-out" provided during the training helps me in learning more easily". A participant, Shikh (P3, 1) expressed similar meaning, he said, "I have benefit a lot from this training. My company appreciates this opportunity to provide to SMI like us". Muhammad (P6, 1) also expressed this connection by saying, "ABC Training is very useful for me to better understand the whole concept of ABC, we can use to actual situation in our work". Finally, Izwan (P10, 1) demonstrated this connection on his statement, "I have ideas how I relate to ABC in my work and also how to use ABC to control costs. I was also able to interact and provide feedback during the training".

4.4.2.7 Affective Reaction to Affect Training Self-efficacy

Statement from two participants that reflected their experiences on affective reaction can be interpreted as connected and to affect training self-efficacy within the same category of transfer progression stage. Zainuddin (P31, 1) strongly indicated in his reaction sheet after training on this connection. Izwan (P30, 1) also indicated strongly this connection on the reaction noted obtained after the training.

4.4.2.8 Utility Reaction to Affect Understanding

Statement from four participants that reflected their experiences on utility reaction can be interpreted as connected and to affect understanding on the learning stage. Muhammad (P6, 1) expressed this connection by saying, "ABC training is very useful for me to better understand the whole concept of ABC, we can use to actual situation in our work". Zainuddin (P11, 1) expressed this connection by saying, "I feel I can understand very clearly from the presentation and notes provided. Also, the ABC method is suitable for the work I do now in controlling costs and making process improvement". He added, "I am happy to add new knowledge on the use of ABC in cost control. I feel I can understand very clearly from the presentation and notes provided. Also, the ABC method is suitable for the work I do now in controlling costs and making process improvement". Similarly, Izwan (P10, 1) expressed this connection, "I understood the overall purpose and method of ABC in reducing operating costs and its relevance to my work. But to do in practice, they may be easier if someone is guiding us".

4.4.2.9 Utility Reaction to Affect Training Self-efficacy

Statement from two participants that reflected their experiences on utility reaction can be interpreted as connected and to affect training self-efficacy on the same category of transfer progression stage. Hafizan (P66, 2) expressed this connection by saying, "At first I did not aware see Activity-Based Costing, now I've seen my company do ABC. Chai (P13, 1) expressed this connection by saying, "The training gives me a clear idea on how to put the content into practice. The training also related to some of my scope of works".

4.4.2.10 Understanding to Affect Training Self-efficacy

Statement from four participants that reflected their experiences on understanding can be interpreted as connected and to affect training self-efficacy on the same category of transfer progression stage. Azman (P1, 1) expressed this connection by saying, "I do have some previous training experience in the field of controlling operating costs and was also involved with the estimated cost for the design I made for my company tenders". Regarding question about the learning during training he said, "I believe I learned something new about the ABC that I can use for cost reduction in the company". Muhammad (P6, 1) expressed this connection by saying, "I can understand the purpose of the cost improvement of activities, uses, and the concept how do you use in our work". When asked about the confident to practice, he replied, "I'm sure this training has given me a clear concept and how to use ABC to improve and costs". Mukram (P12, 1) expressed this connection by saying, "I can understand the purpose and method of approach is the importance of ABC, which we have to focus on identifying the cost of our operational activities, so that we can monitor and control costs". Further, when asked about his confidence to implement the training, he said, "In general I believe I can use of this method in the company's operations for cost saving". Chai (P13, 1) expressed this connection of understanding by saying, "understood a different approach and aware of the cost calculations shortcoming of the current system and its present costing implication to business". When asked the confidence to use, he said, "The knowledge related to cost calculations and procedures that can be applied in developing software manufacturing to help companies to reduce costs".

4.4.3 Motivation to Transfer to Affect Transfer Performance

The following quotations expressed by participants' experiences that reflected the connection between motivation to transfer and transfer performance.

4.4.3.1 Motivation to Transfer to Affect Transfer Strategy

Statement from four participants that reflected their experiences on motivation to transfer can be interpreted as connected and to affect between transfer strategy (i.e. career related, cost improvement and for specific scope) on these two transfer progression stages. Hafizan (P7, 1) described his intention to implement to work and identify the strategy as developing his engineering career, he said, "Yes. I think ABC would be useful knowledge so as to help improve my efficiency at work as an engineer in the process of cost analysis". Similarly, Faiz (P9, 1) expressed his word for connecting the two sub-categories, he said, "aa ... I am hoping to use ABC practice to reduce the cost to the work place that I am work later. I hope that I will move forward in my job and will be able to increase salaries and get promoted". The statement from another participant that reflected his experiences can be interpreted as connecting between motivation to transfer to transfer strategy stage (identifying situation) was given by Chai (P62, 2) as he said, "I am going to put into practice while doing consultancy work". In relating to the transfer strategy, he said, "I can use the knowledge in developing software for manufacturing that is related to cost calculations". Then, he added, "as long as the scope of my work is related to the course, definitely I will apply it continuously". Similarly, Hafizan (P66, 2) said, "My goal I will try to do improvement that my managers are doing now. For example, now I'm evaluating an engineering component, a part that that need analysis on bending, cutting process". Faiz (P68, 2) expressed on the connection between motivation to transfer to transfer strategy, which was related to formulating objective on cost reduction as he said, "One day, I hope to apply on the job. Aa..... I hope to implement ABC to reduce the cost at work place where I work". Finally, Mukram (P72, 2) expressed the connection between motivation to transfer to transfer strategy that related to objective to focus on waste elimination, as he said, "If ABC is implemented to achieve profitability objectives, I considered is already sufficient, but still that will not be the strongest motivation. To have a stronger motivation, the implementation of ABC method should be made based on our principle, so we accept the concept of waste avoidance as one as our principle".

4.4.3.2 Transfer Strategy to Affect Transfer Implementation

Statement from a participant that reflected his experience on transfer strategy can be interpreted as connected and to affect transfer implementation (i.e. adapting ABC to work place) on the same category of transfer progression stage. Jason L (P71, 2) expressed this connection by saying, "I would like to share my experience of using ABC. I have been using Activity-based Costing in my company for the last year. We have just based on simple spread-sheet for data, then we start to analyse, for example I am in concrete business, we identify, our lorry is our biggest cost, as we have a lot of its expenses, diesel and others, what I want to say, that it is not complicated to do ABC".

4.4.3.3 Transfer Implementation to Affect Perceived Organisational Results

Four statements from a participant that reflected on his experience for transfer implementation can be interpreted as connected and to affect perceived organisational results. Jason L (P71, 2) expressed the ABC implementation as related to return on investment of business profit, as he said, "That the ABC has given tremendous benefits to my company bottom line. As a result, I think my company is now one of the lowest costs in the same industry". Relating to other perceived result on lowering operation cost, he continued, "when our costs are low, my company has an edge over other companies, while for the bigger companies, cost is their biggest challenges, where in my company, costs are our advantage. In terms of the earning per unit, I think my earning per unit is higher than the industry average, our earning per unit of about 15-20% higher, so this is my business success experiences". He also mentioned on other perceived result relating to supplier management that his company has achieved, he said, "We keep on improving ... the data collection system, so to progressively improved the accuracy of the data, so now (all our lorries are subscribed to a GPS company, we can even tell the GPS company, their GPS system got problem, yesterday my lorry was at a certain site that their GPS did not capture), so I can tell them, you give me discount,

because your system was imperfect, so as the result of this action, we are able to tell our supplier of their problems, so to those supplies as we tell them their problem, they are good to us and they immediately respond to our request". Another perceived result from implementation was on structural change in business operation. The participant voiced on this achievement by saying, "ABC gives to us is that it slowly transforming our business to a new business model, and to me I can call it as a successful business model".

4.5 Factors Influencing Training Transfer Progression

This section discusses meanings that participants expressed on relating to factors influence their transfer experience at each stages of the transfer progression. It is presented in form of words of participants as evidences to describe the relationship of each category, either by having the said meaning or contains their explicit meaning that can be understood to have influenced the transfer of training experience of trainees.

4.5.1 Factors Influencing Motivation to Learn

The individual factors that were identified to influence the motivation to learn can be grouped into three sub-categories; (1) knowledge, skill, experiences and ability (KSEA), (2) work related personal factors and (3) perceived transfer climate.

(i) Knowledge, skill, experience and ability influence motivation to learn

Among these properties to influence the training transfer progression, only pre-training self efficacy was found to have a link to motivation to learn. However, knowledge, skill and experience (KSE) may indirectly link to motivation to learn through secondary links such as via pre-training self efficacy.

(ii) Pre-training self-efficacy influences motivation to learn.

Pre-training self-efficacy is part of KSEA properties of individual factors. Statement from the three participants who engaged in the experience of training transfer progression can be summarised using participants' quotations. A participant Azman (P1, 1) expressed his view to relate pre-training perceived ability (i.e. self-efficacy) by saying, "I do have some previous training in the field of controlling operating costs and is also involved with the estimated cost for the design I made for my company tenders", then he continued, "I believe I learned something new about the ABC that I can use for cost reduction company. The training content can easily be understood, which is structured in a logical manner and described one by one with examples. In general, the contents have important things that need to know". Another participant, Shikh (P3, 1) also described on having pre-training self-efficacy as he is also the operation manager of a company. He is a dynamic participant who has always has high motivation to learn and demonstrated his interest in learning during training. He frequently asked questions and gave his opinion in responding to the speaker questions. He is a cheerful person; always wanted to share his experiences and challenges of working. Finally, Mukram (P12, 1) linked the connection as he said, "To me, we need to learn to use the concept of cost reduction through the ABC method as it is appropriate to the philosophy and value that aligns to an individual's Muslim, who must be responsible for the avoidance of waste and to manage our resources wisely".

(iii) Work related personality factors influence motivation to learn

The work related individual factors that have been identified in this study were; job/career utility, job/work commitment, locus of control and attitude toward learning or training. The next section describes the evidences, which were derived from participants' statement to indicate these findings using the related quotations of the participants from this study.

(iv) Job/career utility influences motivation to learn

Statements from four participants on their transfer experiences can be summarised using the following quotations. Muhammad (P6, 1) conveyed his career planning as motivation to learn ABC training, he said, "I think about this course, we can learn and add our knowledge to our self. We can learn ABC for our future; build our career in our work". Another participant, Muhd Fadhli (P8, 1) also expressed the same message, as he remarked, "I think I can add my ABC knowledge in greater depth. ABC will be useful to me to help me improve my performance in my work, as well as to be respected by my superior and peers". Similarly, Faiz (P9, 1) told that his career motivated him by saying, "aa ... I think to add the knowledge for advancement in my career. One day I hope to adapt and apply or to my job". Izwan (P10, 1) expressed his motivation to learn ABC by saying, "I think, to improve knowledge, because knowledge is more important to our work or when we move to another company, we will be able to use for the other company as well". Finally, Zainuddin (P11, 1) provided the similar message on his motivation to learn the ABC by saying, "To increase knowledge in cost control to improve operational process. ABC knowledge can be used in my work to help me to improve myself in order to build my career advancement".

(v) Job involvement influences motivation to learn

Statements from three participants who engaged in training transfer progression experiences can be summarised using the next quotations. Hafizan (P7, 1) conveyed on his job involvement that affected his motivation to learn, when he said, "This training is important to me to understand on ABC method to control cost to use in my workplace. To improve my knowledge as an engineer to be able to solve problems, doing cost analysis and to attempt further improves on things that my managers do now at my place of work". Another participant, Muhd Fadhli (P8, 1) expressed the similar meanings, he said, "I think I can add my knowledge in greater depth. ABC will be useful later to help improve my performance in my work to be respected by my superior and peers". Finally, in the reflective sheet, Vincent (45, 2) noted a strong link between his job involvement and his learning motivation.

(vi) Locus of control influences motivation to learn

Statement from three participants who engaged in training transfer progression can be summarised using the next quotations. Azman (P1, 1) who is the engineering manager and was having internal locus of control made a statement, "I would like to join other courses in the future if given another chance. My company is always welcome the collaboration with UTM either to help us in improving our operational efficiency or to provide industrial training to students so that they get some work experiences". Similarly, Shikh (P3, 1) who is operation manager and also having internal locus of control, talked about his motivation to learn, he said, "I hope to attend training like this in the future. I suggest training on lean sigma and quality function deployment". Chai (P13, 1) is also a manager of a manufacturing software development company, who also has internal locus of control in deciding the final result for his company. Relating to his motivation to learn the training, he said, "I want to understand and use the knowledge in my consultancy works and develop software for manufacturing operations. My present work related to developing software for manufacturing companies".

(vii) Attitude toward training influences motivation to learn

Statements from three participants who engaged in training transfer progression can be summarised using the next quotations. Azman (P1, 1) conveyed his attitude toward training and his motivation to learn as he said, "I would like to join other courses in the future if given another chance. My company is also always welcome the collaboration with UTM either to help us in improving our operational efficiency or to provide industrial training to students so that they get some work experience". Shikh (P3, 1) provide similar message, he said, "I hope to attend training like this in the future. I suggest training on lean sigma and quality function deployment". Jason L (P14, 1) relates his motive to learn the ABC by saying, "I want to understand and use the knowledge on ABC method in my concrete supplying business. My present business is very competitive and constantly need to reduce cost, to stay ahead of others in this business".

4.5.2 Factor Influencing Training Performance

The following quotations explain how certain individual factors influencing training performance, which were classified into three sub-categories; affective and utility reaction, learning and perceived ability that reflected on post-training self-efficacy.

4.5.2.1 Factors Influence Reaction to Training

(a) Factors influencing affective reaction

(i) Knowledge, skill, experience and ability influence reaction to training

Among factors related to knowledge, skill, experience and ability, only one factor (i.e. perceived ability, which is related to pre-training self efficacy of the trainees) has a direct link to trainee's reaction to training. However, other factors (i.e. knowledge, skill and experience - KSE) may be indirectly linked to motivation to learn through pre-training self efficacy factor.

Pre-training self-efficacy influences affective reaction

Statement from two participants who have engaged in the training transfer can be summarised using the next quotations. Azman (P1, 1) linked his perceived ability to positive reaction by his statement, "The ABC system we learned here was related to my job as an engineering manager who has to perform design work, produce and review engineering drawings that requires a lot of time. This knowledge can be used in controlling operating costs of the department". Another participant, Shikh (P3, 1), perceived as having pre-training self-efficacy, provide positive reactions to training by saying, "I have previous training experience that was related to cost management and control. I have some knowledge about costing". Relating his feeling to the training, he said, "I feel satisfied with the facilities and equipment used in this training. I found hand-out materials provided

also useful to help me learn better. I have benefited a lot from this training". Muhammad H (P6, 1) conveyed similar feeling, as he said, "ABC training is very useful for me to better understand the whole concept of ABC, we can use to actual situation in our work". Vincent (P35, 2), a production manager in snack manufacturing company noted in his reaction sheet indicated strong connection of his perceived pre-training ability and his positive affective reaction toward training.

(ii) Work related personal factor influences affective reaction

The work related personal factors that have been identified in this study to influence reaction were; job/career utility, job/work commitment, locus of control and attitude toward learning or training. The next discussion provides evidences on how these factors influence affective reaction to training.

Organisation commitment influences affective reaction

Statement from four participants who have engaged in training transfer progression experiences can be summarised using the next quotations. Azman (P1, 1) expressed his organisation commitment and well as affective reaction of the training reaction. He said, "I wish to thank the speaker and UTM for organising this course. I would like to join other courses in the future if given another chance. My company is also always welcome the collaboration with UTM either to help us in improving our operational efficiency or to provide industrial training to students". Shikh (P3, 1) also conveyed the similar meaning, he said, "I think most of the knowledge given during the training is relevant to my job as operation manager in controlling engineering operations. I will try to use the concept and strategy of the training into my work". On the benefits of training, he added, "I have benefit a lot from this training. My company appreciates this opportunity to provide to SMI like us. We are looking to participate again next time. I believe the training will help me to improve my skill in performing my work in my company". Jason C (P4, 1), a manager of printing company said, "I have benefited a lot from this training. I also believe the training will help me to improve and my cost improvement skill in performing my work in my company. I will try to implement the method of cost improvement from this training in my company. My company also very much

appreciate this opportunity that UTM provides to us. We are looking to participate again next time".

Locus of control influences affective reaction

Statement from three participants who have engaged in training transfer progression can be summarised using the next quotations. Azman (P1, 1), who is an engineering manager that has internal locus of control said, "I would like to join other courses in the future if given another chance. My company is also always welcome the collaboration with UTM either to help us in improving our operational efficiency or to provide industrial training to students so that they get some work experience". Similarly, Shikh (P3, 1), an operations manager and also has the internal locus of control, said, "I would like to thank the organiser for this opportunity given to my company to participate in this training. We see this training as example of smart partnership between industry and university, where industry should identify courses they need to master and university will provide the expertise". Jason C (P4, 1), a director of concrete manufacturing plant also demonstrated this connection as he noted, "I like the logical way content is organised. I understood most of the training objectives. I believe I gain new knowledge on ABC from this training".

Attitude toward training influences affective reaction

Statement from two participants who have engaged in training transfer progression can be summarised using the next quotations. As an engineering manager, Azman (P1, 1) expressed his attitude on training and his reaction of the training, "I would like to join other courses in the future if given another chance. My company is also always welcome the collaboration with UTM either to help us in improving our operational efficiency or to provide industrial training to students so that they get some work experience". Similarly, Shikh (P3, 1) conveyed the influence of the attitude toward training and reaction through his statement, "I have benefited a lot from this training. My company appreciates this opportunity that UTM provides to SMI like us. We are looking to participate again next time".

(b) Factors influencing utility reaction

(i) Knowledge, skill, experience and ability influence utility reaction

Among the above factors or properties, only perceived ability that related to pre-training self efficacy of the trainees was identified to have a direct link to utility reaction on the ABC training. However, knowledge, skill and experience (KSE) may be indirectly link to motivation to learn through pre-training self efficacy.

Pre-training self-efficacy influences utility reaction

Statement from three participants who engaged in training transfer can be summarised using the next quotations. Azman (P1, 1), who has worked as engineer since 1994, and now as an engineering manager, said, "The ABC system we learned here is related to my job as an engineering manager who has to perform design work, produce and review engineering drawings that requires a lot of time. This knowledge can be used in controlling operating costs of the department. I would like to apply this concept to improve the efficiency at my department, such as to review the "drawing" that needs to be done more efficiently and effectively to reduce errors and avoid repetitive work". As responded to question on the useful of the training, he answered, "In facts, this training is useful in my place, for exposing especially at our production". Another participant, Shikh (P3, 1) demonstrated his pre-training self-efficacy influencing utility reaction by his statement, "I think most of the knowledge given during the training is relevant to my job as operation manager in controlling engineering operations. I will try to use the concept and strategy of the training into my work".

(ii) Work related personal factors influence utility reaction

The work related personal factors that have been identified in this study including influencing utility reaction were; job/career utility, job/work commitment, locus of control and attitude toward learning or training. The next discussion describes evidenced on how these factors influence utility reaction of the training.

Job utility influences utility reaction

Statement from five participants who have engaged in training transfer progression experiences can be summarised using the next quotations. Muhammad (P6, 1) conveyed his job utility concern influences on his utility reaction on training by saying, "ABC training is very useful for me to better understand the whole concept of ABC, we can use to actual situation in our work". Another participant, Hafizan (P7, 1) indicated his job utility concern influences on utility reaction of ABC training by saying, "Yes. I think ABC knowledge would be useful later to help improve my performance at work as a cost analysis engineer in the process section". Similarly, Muhammad H (P26, 1), Zainuddin (P31, 1) and Vincent (P35, 1) indicated in their training reaction sheets by showing "a strong connection between the career utility and utility reaction of the training".

Job involvement influences utility reaction

Statement from four participants who have engaged in training transfer progression can be summarised using the next quotations. Azman (P1, 1) who expressed his concern on his job involvement that influences on his utility reaction by his words, "The ABC system we were learned here, in facts were related with my job as engineering manager who has to perform work on design, produce and review engineering drawings that requires a lot of time. This knowledge can be used in controlling operating costs of the department. I would like to apply this concept to improve the efficiency at my department, such as to review "drawing" that needs to be done more efficiently and effectively to reduce errors and avoid repetitive works". Similarly, Shikh (P13, 1) established the connection by saying, "I think most of the knowledge given during the training is relevant to my job as operation manager in controlling engineering operations. I will try to use the concept and strategy of the training into my work". In relating to his organisation commitment, he noted, "My company appreciates this opportunity that UTM provides to SMI like us. We are looking to participate again next time. I believe the training will help me to improve my skill in performing my work in my company". Another similar message made by Hafizan (P7, 1) from his statement, "Training is important to me I understand about cost control using ABC method in order to use at workplace.to adds my knowledge as an engineer to be able to solve problems,

perform cost analysis and to attempt further improvement on what my managers do now I at my place of work". Finally, Jason L (P14, 1) expressed his concern for the job involvement that also influencing his utility training reaction when he said, "I find out that ABC concept is very much relevant to my business and very useful to me as the person who needs to improve the operation costs of my business. I always need to find effective methods in reducing cost, and ABC method is suitable to be used in business operation like ours".

Locus of control influences utility reaction

Statement from three participants who engaged in training transfer progression can be summarised using the next quotations. Azman (P1, 1) an engineering manager and who has internal LOC indicated his feeling on the training by saying, "The ABC system that we learned, in facts was related with my job as an engineering manager who has to perform work on design, produce and review engineering drawings that requires a lot of time. This knowledge can be used in controlling operating costs of my department. I would like to apply this concept to improve the efficiency of my department, such as to be able to review "drawing" that need to be done more efficiently and effectively to reduce errors and avoid repetitive work". Shikh (P3, 1), an operation manager that also has internal locus of control expressed his feeling on the training; "Some parts of the training knowledge from this training are related to my job and very useful to me as a manager". Finally, Jason L (P14, 1), a director and owner of a concrete manufacturing company expressed his feeling on training by saying, "I find out that ABC concept is very much relevant to my business and very useful to me as the person who needs to improve the operation costs of my business".

Attitude toward training influences utility reaction

Statement from three participants who engaged in training transfer can be summarised using the next quotations. Muhammad (P6, 1) who has shown high interest to participate in the training expressed his feeling on the relevance of training as he said, "The training is very useful for me to better understand the whole concept of ABC, we can use to actual situation in our work". Similarly, Hafizan (P7, 1) conveyed his feeling with his statement, "ABC concept, is about the

control of cost to be used in work improvement may be understandable and appropriate for use. The others, if necessary to apply, can always ask for assistance, to make simple to understand". Finally, Jason L (P14, 1) expressed his view on this connection as he said, "I want to understand and use the knowledge on ABC method in my concrete supplier business. My present business is very competitive and constantly need to reduce cost, to stay ahead of others in this business".

4.5.2.2 Factors Influence Understanding

(i) Knowledge, skill, experience and ability influence understanding

Among the above factors or properties that have been considered, only perceived ability factor (i.e. that is related to pre-training self efficacy of the trainees), was identified to have a direct link to understanding of the training. However, knowledge, skill and experience (KSE) may be indirectly linked to motivation to learn through pre-training self efficacy.

Pre-training self-efficacy influences understanding

Statement from three participants who engaged in training transfer progression can be summarised using the next quotations. Azman (P1, 1), an engineering manager who has demonstrated his perceived ability before training demonstrated his understanding on training, he said, "I do have some previous experience from training in the field of cost control operating and is also involved with the cost estimation cost for the design I made for my company tenders". Then, he added, "I believe I have learned new knowledge on the ABC that I can use for cost reduction in my company". Shikh (P3, 1) also conveyed similar message by his words, "I have previous training experience that was related to cost management and control. I have some knowledge about costing". Later, he said, "I found hand-out materials provided also useful to help me learn better". Shikh (P23, 2) also indicated strong agreement in his training reaction sheet obtained after the training.

(ii) Work related personality factors influence understanding

The work related personality factors that were identified in this study to influence understanding were; job/career utility, job/work commitment, locus of control and attitude toward learning or training influences on understanding. The next discussion describes evidences that indicate these findings using the related quotations provided by participants from this study.

Job/career utility influences understanding

Statement from four participants who engaged in training transfer progression can be summarised using the next quotations. Muhammad (P6, 1) showed on his job utility that influencing understanding as he said, "ABC training is very useful for me to understand better the whole concept of ABC, we can use to actual situation in our work". Jason L (P34, 2) and Vincent (P35, 2) have indicated strong agreements in their training reaction sheet obtained after after training. Finally, Muhammad (P65, 2) conveyed his career utility influencing his understanding as he said, "My hope aaa that this thing is for the future, so we can use for our future in our work, so we can add the knowledge to our self".

Organisation commitment influences understanding

Statement from a participant on his experience on training transfer can be summarised using evidence from the next quotations. Shikh (P3, 1) showed that his organisation commitment influencing understanding with his words, "I have benefited a lot from this training. My company appreciate this opportunity that university provide to SMI like us. We are looking to participate again next time".

Locus of control influences understanding

Statement from three participants who engaged in training transfer progression can be summarised using the next quotations. Jason C (P4,1), a director and owner of concrete manufacturing company showed his internal locus of control influencing his understanding by his words, "I understood most of the training objectives. I believe I gain new knowledge on ABC from this training". He added, "Some parts of the knowledge from this training are related to my job and very

useful to me as a manager". Chai (P13, 1), a manger and manufacturing software developer perceived the link between his internal LOC influences to his understanding as he said, "I have gained knowledge and skill from the training. The training gives me a clear idea on how to put the content into practice. The training also related to some scopes of my works". Similar connection was indicated by Jason L (P34, 34) in his training reaction sheet obtained after the training.

Attitude toward training influences understanding

Statement from two participants who have engaged in training transfer progression experiences can be summarised using the next quotations. Shikh (P3, 1) expressed his attitude toward training influencing understanding as he said, "I have benefit a lot from this training. My company appreciate this opportunity that university provide to SMI like us. We are looking to participate again next time". Another participant, Hafizan (P7, 1) showed his attitude toward training influencing understanding by his statement, "ABC concept, is about the concept of cost control for use in work for improvement can be understood and appropriate to be used. The others, if necessary, we can ask for assistance, to easily understand that".

(c) Factors influence training self efficacy

(i) Knowledge, skill, experience and ability influence training self-efficacy.

Among the factors or the properties, only perceived ability that related to pre-training self efficacy of the trainees that was identified to have a direct link to training self-efficacy. However, knowledge, skill and experience (KSE) may be indirectly link to motivation to learn through pre-training self efficacy.

Pre-training self-efficacy influences training self-efficacy

Statement from three participants who have engaged in training transfer progression can be summarised using the next quotations. Azman (P1, 1), an engineer and working as engineering manager that demonstrated his pre-training self-efficacy that influencing perceived ability to use ABC method or the post-

training self-efficacy, or simply called training self-efficacy when he recounted, "I do have some previous experience from training in the field of cost control in operations and is also involved with cost estimation for the design I made for my company tenders". Relating to perceived ability to use what was learned during the training, he added, "I believe I have learned new knowledge about the ABC that I can use for cost reduction in my company". Another two participant, Zainuddin (P31, 1) and Vincent (P35, 1) have indicated a strong connection between pre-training self efficacy and their perceived ability or training self-efficacy after attending the training, in the reaction sheet provided to them after training.

(ii) Work related personal factor influences training self-efficacy

The work related personal factors that have been identified in this study influencing training self-efficacy were; job/career utility, job/work commitment, locus of control and attitude toward learning or training. The next explanation will indicate how these factors influence training self-efficacy.

Job/career utility influences training self-efficacy

Statement from two participants who have engaged in training transfer progression can be summarised using the next quotations. Zainuddin (P11, 1) expressed his concern on his career utility that influencing his training self-efficacy with a statement, "I think I can practice ABC for cost improvement with a little help from the experts. I would like to really acquire skill of ABC methods for implementation in my work in the future". Another participant, Chai (P13, 1) conveyed his job utility concern and training self-efficacy relationship as he said, "Parts of the training contents I have confidence to implement into your work". Then, he explains, "the knowledge related to cost calculations and procedures that can be applied in developing manufacturing software to help companies to reduce costs".

Job involvement influences training self-efficacy

Statement from two participants on their experiences in training transfer can be summarised using the next quotations. Regarding job involvement to influence training self-efficacy, Mukram (P12, 1), a director of a manufacturing company conveyed the message in his words, "In general I believe for using of this method in the company's operations for cost saving. This method can be implemented with the assistance of those who have skilled to implement it". Relating to his commitment, he explained further, "First, it is the demand of our personal philosophy to always make the best effort to save costs and to eliminate wastage. Secondly, this practice will contribute to increase the profit that is our business goals". Another participant, Chai (P13, 1) expressed similar message when he expressed his confident by saying, "The knowledge related to cost calculations and procedures that can be applied in developing manufacturing software to help companies to reduce costs". Then, he explains further, "I will try to use ABC method to my consultancy works in providing software solutions to manufacturing problems".

Locus of control influences training self-efficacy

Statement from three participants who have engaged in training transfer progression can be summarised using the next quotations. As a director and co-owner of chemical based manufacturing company, Mukram (P12, 1) expressed his internal locus of control influencing his perceived ability to apply ABC as he said, "In general I believe can use of this method in the company's operations for cost saving". For the details, this method can be implemented with the assistance of those who have skill to do that. Another participant, Chai (P62, 2), who is an engineer, a manager and developer of manufacturing software said, "I can use the knowledge in developing manufacturing software that is related to cost calculations". Relating to previous experience to apply the training, he explains, "As long is the scope of my work is related to the course, definitely I will apply it continuously". Finally, the clarification by Jason L (P71, 2), a director that having internal locus of control said, "I am in concrete business, we identify, our lorry is our biggest cost, we have a lot of its expenses, diesel and others, what I want to say, it is not that complicated to do activity based costing, We also need not to have RM200,000 software to do that".

Attitude toward training influences training self-efficacy

Statement from two participants who have engaged in training transfer can be summarised using the next quotations. Azman (P1, 1), who demonstrated his positive attitude toward training, clarified his perceived ability to apply the training by saying, "I believe I have learned something new about ABC that I can use for cost reduction in my company". He then added further, "I would like to apply this ABC concept to improve the efficiency in my department, for example I can check the "drawing" to be done more efficiently and effectively to reduce errors and to avoid repetitive works". Similarly, Shikh (P3, 1) conveyed his positive attitude toward training and his perceived ability to use the training in his company by saying, "We are looking to participate again next time. I believe the training has helped me to improve and my skill in performing my work in my company".

4.5.3 Factors Influencing Transfer Performance

The factors influencing the transfer performance at the sub-category of transfer implementation were identified and group under the perceived transfer climate. There included; management and peers support, learning culture, opportunity to use and barrier to transfer.

Management support influences transfer implementation

Statement from a participant who has engaged in transfer of training experiences can be summarised using evidence from the next quotation. Relating to management role to enhance the transfer implementation, Jason L (P71, 2) expressed this relationship by his words, "I run the business, so to me, at the end of the day, if I did not make the money, so my pocket hurt and it hurt me very badly, so I need to learn a lot, then must make sure my company make money, cannot loss money, so I make extra effort to collect all these data, and it actually involve top management involvement, because if you want to have certain data, if you are not persistent enough, you do not get it".

Peers support influences transfer implementation

Statement from a participant who has undergone experiences in transfer of ABC training can be summarised using evidence from the next quotation. Jason L (P71, 2) expressed on the role of peers in influencing transfer implementation as he said, "So, I make sure that my staffs give me the data, even though only a sheet, never mind, then we refine them over a period of time, we keep on improving the data collection system".

Organisational learning culture influences transfer implementation

Statement from a participant who has undergone experiences in transfer of ABC training can be summarised using evidence from the next quotation. Participant Jason L (P71, 2) clarified that organisational learning culture has a role in influencing transfer implementation, as he said, "Even though the awareness were there, for SMI they normally look at the profit and loss account, and they look at the bottom line whether they made profit, but I think the real reason is whether they can stand up to take challenge to build their companies".

Opportunity to use influences transfer implementation

Statement from a participant who has undergone experiences in transfer of ABC training can be summarised using evidence from the next quotation. Participant Chai (P62, 2) clarified the role of opportunity to use the training in participant's job the effect to transfer implementation by his statement, "I can use the knowledge in developing manufacturing software that is related to cost calculations".

Barrier to transfer influences transfer implementation

Statement from six participants who have engaged in training transfer progression experiences can be summarised using the next quotations. First, Zainuddin (P63, 2) mentioned unsupportive peer as a barrier to transfer implementation or may cause delaying to implement ABC in work place. He said, "I learned from this exercise is an effective tool in controlling the costs of an organisation. However, I have not been able to practice again my workplace". Clarifying this, he explained further, "I feel ABC method is easy to practice when

you get a continuous guidance from those who are more experienced, but it will be difficult, if we do not get support from each member". Second, another participant, Salwa (P64, 2) identified on the lacking of opportunity to use as a barrier to transfer implementation as she said, "Perhaps, after having employed later, I will be able to relate problems encountered in the workplace to this knowledge, for example solving engineering problems related to the financial matter". Third, Muhammad (P65, 2) has recounted another barrier related to the limitation of scope of work that influencing the delay the transfer implementation, he said, "My hope, aaa that this thing is for the future, so we can use for our future in our work, so we can add the knowledge to our self". He explained further, "until this date, my scope of work has not related to cost, so, not yet (able to implemented-R)". Fourth, Faiz (P68, 2) expressed skill related barrier that negatively influencing transfer implementation or cause the delay in using the training as he said, "At the moment I have not yet able to apply". He recounted further, "aa I think this ABC method is easy, but to implement need the guidance from senior or those who have more experienced". Fifth, Izwan (P69, 2) recounted the lack of management support that negatively influencing transfer implementation, as he said, "Yes, it is, like I said before, cannot get support, because we are only engineers, because at the top level we have a manager, we have a general manager, so, these persons need to monitor on what we are going to give idea, they will monitor or approve first before it can be implemented". Relating to his intention to use the training, he continued to explain, "At this moment, I have not yet done anything, because I am still new at my job". Finally, Jason C (P70, 2) clearly indicated on the lack of learning culture that prevents organisation to look for a change in managing. He then identified the conventional method of business focus on bottom line negatively influencing the implementation of ABC method in companies, he said, "We are not sure, some may be have better way of doing this cost saving approve, for example, some they do benchmarking to compare them with other i.e. market today how much machine cost now, say for example, during machine, one hour is RM30, wire cut machine how much form they estimate only, they only do standard cost". He then concluded by saying, "Whether they justify or if over-cost or under-cost is another story...., the bottle neck is to see whether their price is accepted or not in the market.

4.6 The Experience of Engaging in Transfer of ABC Training Progression

This section describes the integration of respective categories and its properties to represent the experience of trainees before, during and after training in sequences. In describing the way trainees identified the path of transfer of training progression as become true, the next discussion below describes three phases that trainees traversed to engage in training transfer progression. These phases were identified as three continual phases, which represented as; (1) before attending training involving the stage of motivation to learn, (2) during the training involving the stage of training performance and (3) after training involving the stages of motivation to transfer and transfer performance.

Firstly, the result from the analysis has identified motivation to learn as a category for the first stage that occurred before trainee attended the training, while working as engineers or operation staffs at their companies. As they adopted a route to engage in the training, that decision moved their actions and builds courage for to subsequently progress into the next stage, which was the second stage of training phase. In the second stage, during attending the training, it created the trainees' awareness, understanding the facts on ABC method and gained the practical skill and subsequently and also built their self-efficacy (i.e. the believe on the ability to use ABC method for improving cost of manufacturing operations. The third stage, motivation to learn was represented as the extended behaviour of trainees that advanced from positive feeling of the training; learning and self-belief to build strength from personal motivation to act on these experiences. The final stage was the transfer performance that proceeds after the third stage. Thus, each part of stages maps a progression route that followed through started before the training, continued during the training and proceeds after training in a continual path to sustain progression toward fulfilment of complete process of training transfer. Using Constructivist Grounded Theory approach a core category was conceptualised and linked to other categories to form an integrated framework of "engaging training transfer progression" that linked categories of experiences and factors influencing the transfer of ABC training. The integrated framework of "engaging in transfer progressions/trajectory" is the final result of the analysis that

represented experiences of trainees in dealing with transfer of training experiences. The next section provides the evidences to the development of the framework.

The crucial and starting stage in the framework of “engaging in training transfer progression” was identified as motivation to learn, that related to desiring to learn or desiring to acquiring new knowledge and skills and/or to advance and master existing knowledge and skill. The description was demonstrated by Hafizan (P7, 1) who showed his interest to learn knowledge and acquiring practical skills before training and also Salwa (P5, 5) when she described her intention to learn as to add ABC training knowledge to her existing knowledge on ABC. The motivational factors that moved participants’ motivation to learn were identified to be valence related factor as described by the participants’ word on valuing the ABC training benefit such as attractive, important strategically and having attractive features. An example of this description was recounted by Hafizan (P66, 2), “firstly, I am now working as a process engineer, it is very important to understand the method of activity based costing”.

The next training transfer progression experienced by participants was identified as training performance stage, which consists of affective and utility reactions to the training, followed by learning (i.e. understanding the training contents and gaining skill and applying the ABC procedures), that eventually established their post-training self-efficacy to perform ABC method in the work place. Examples of affective reaction to training was reflected as feeling satisfying with training programme such as training environment, contents, delivery method, speaker, training aids, and networking opportunity, as described by statement by Azman (P1, 1) that says, "facilities and a place in this training is satisfactory. I feel satisfied with the presentation of speaker” and by Shikh (P3, 1) was saying “I feel satisfied with the facilities and equipment used in this training. I found hand-out materials provided is also useful to help me learn better”. The learning part of the training performance stage was related to understanding facts and concepts, objective, and situation to use. An example of learning experience was explained by Jason C (P4, 1) by saying "I understood most of the training objectives. I believe, I have gained new knowledge on ABC from this training". In addition, participant

also gained skills of ABC procedure as mentioned by Muhd Fadli (P8, 1), "to practice in the workplace as overall strategy, it will be quite difficult, to understand better, I think it would be more effective if we also undergone some practical problem, if there are tools that we want to use, we should try at that time, so it will help understand. However, some participants voiced out lacking of understanding facts and procedure which requires further help as explained by Rahmat (P2, 1), "I think it is enough to start, but if I really wanted to use, I hope to get further guidance when to use in the future". The next part of training outcome progression stage was post-training self-efficacy, such as generalised self-efficacy, the ability to apply procedure and concept, toward initiating cost improvement in their works. An example of this experience was described by Zainuddin (P11, 1), "I feel can better practice ABC to improve the cost of the process with a little help from the experts". Meanwhile, some participants have expressed the lack of confidence to apply ABC as reflected by Muhd Fadli (P8, 1) statement, "I think my hardest part to implement ABC is because I am still like to my job, having less influence to others, so to start this, we want to influence other people, so that is the hard part".

The training performance stage lead participants to progress to the third stage, motivation to transfer, which described as desire to apply ABC procedure/analysis, to adopt ABC, to reduce cost at work place, to use ABC as general business strategy or to gain experiences/expertise. An example description of this experience was conveyed by Jason C (P4, 1) that expressed his desire to apply by saying, "I will try to implement the method of cost improvement from this training in my company". However, some participants decided to hold back the intention to use the training at their work place by deciding to delay the implementation of ABC to the later times. An example description of this challenge was expressed by Muhammad H (P6, 1) by saying, "I think, this thing is still new to me, so, I think, we must have the basic to understand, then we must have the concept, then I have the scope and then the problems that we can practice". The motivational factors for motivation to transfer the training can be related to valence, expectancy and instrumentality factors. The valence related factor was described by the participants on valuing the outcome of ABC implementation as described on example shared by Hafizan (P7, 1) when he expressed it by saying "as an engineer,

we prefer to get and solve the problem, as we love to be appreciated". Expectancy factor was related to expecting to use to improve work/process, for continuous improvement, for performance monitoring or for enhancing motivation to excel. An example to describe this factor was given by Mukram (P72, 2) who said, "ABC is suitable for implementation in the industry, but to make sure it can be done, we must insert motivation". Accordingly, instrumentality related factor was related to the focus of implementation as to produce such outcomes such as to gain a financial reward, to achieve a better work position, to become an expert in ABC, to be recognised or respected in the current job and to be able to lead others in the work place. An example of this factor was explained by Faiz (P68, 2) as he said, "I hope, in the future, I will be able to increase my salary and I will be promoted as well".

The next stage of progression in training transfer as experienced by participant was transfer performance, which started with creating a transfer strategy, followed by adapting ABC actual implementation, and then finally perceived results on outcomes of the implementation. The transfer strategy was described as having identified objective to implement the training, situation to use ABC, resources needed and requirements, approach to implement and finally identifying constraints as barrier to implement. Examples of identifying objective to implement ABC were identifying profit as the strategy, to develop software as ABC tool, for cost estimation and control, for decision making on financial issues and for developing leadership in industry. An example of this experience was conveyed by Mukram (P12, 1) as he said, "this practice has caused us to improve the profit which is the purpose of our business goal". In identifying situation to implement ABC, which included scope, problems, product and processes, it can be described using the statement conveyed by Azman (P60, 2) as he said, "from the engineering section, we do not have many areas that we can work to save cost, only can reduce the error during review work that needs to be controlled to reduce costs". On identifying resources to implement ABC participants' experiences, which included identifying information needed, identifying supporting staffs to assist, tools available, the champion/leader and the expert as explained by Azman (P60, 2) by saying, "the information is available, but it was stored only for the later use, when we need to make order on consumable items, such as drill bits". Next, identifying

approach to use ABC, which included identifying steps to implement ABC, area to be focused, analysis methods and on relating ABC to daily practice. In addition, few of constraints were identified as challenges to get staff support, difficulties to get expertise, cost beyond management control, limited work scope and lack of priority over other initiatives. The constraint was expressed by Zainuddin (P11, 1) as he said, "however, it was difficult to get all members to support this effort." The adaptation or actual transfer implementation part of transfer stage included the action to certain level implementation, doing analysis of the operation cost and determining the process costs. Finally, perceived organisational results was explained by participants in term of improving ROI, reducing operation cost, improving customer relationship and supplier management, creativity, performance measures, business strategy and for better decision makings and as tool for building cost leadership position. Example of perceived improvement on the company's return on investment (ROI) reflected from Jason L (P71, 2) statement as he recounted his experience by saying, "in terms of the earning per unit, I think my earning per unit is higher than the industry average's earning per unit of about 15 to 20 per cent, so this is my business success experiences".

Individual factors that were identified to influence the transfer of training were; (1) self-efficacy prior training, (2) work related personal factors such as job and career utility, job involvement/ organisation commitment, locus of control and attitude toward training and also (3) perceived transfer climate. Firstly, related to pre-training self-efficacy, Azman (P1, 1) demonstrated his high pre-training self-efficacy that influenced his motivation to learn, having more positive of affective and utility reaction, having better learning and establishing the training self-efficacy. He said, "I believe, I learned something new about ABC method that I can use for cost reduction in my company". Further more, for work related personal factors, specifically for job and career utility such as career advancement, working for professional development and working for job advancement, Muhammad (P6, 1) expressed the motive behind his motivation to learn ABC training on "preparing self for career advancement" as he said, "we may be able to learn the ABC for the future use, to build our future working career". Participant's commitment to job was conveyed by Azman (P1, 1) as he said, "my company always welcome the

collaboration with UTM either to help us in improving our operational efficiency or for us to provide industrial training to students so that they get work experience". The internal locus of control also influenced to motivation to learn and training outcomes as described in the above section.

Finally, attitude toward learning was identified to affect such as learning from experiences, looking forward continuous learning and taking challenges toward learning. The final factors was perceived transfer climate that influenced transfer performance, which included perceiving management support as crucial, peer support, opportunity to use, adopting learning culture and facing inhibitors for implementation. An example to describe this influence was given by Hafizan (P66, 7) as he said, "the said efficiency or the accuracy because there are also operators that do not want to take risk (to be very accurate in inspection), he just passed through the product".

4.7 Summary

In this study, researcher has examined, interpreted and described participants' words and behaviors into set of meanings using coding that represented categories, properties and dimensions, which reflect the experiences of trainees in going through various phases in handling with ABC training transfer. The study also showed the interaction among those categories or factors at various phenomena that contributed to the complex transfer processes as describes through experiences by trainees who attended the ABC training. Although each result was presented separately for purposes of clarity, however, the final outcome of the transfer of training progressions and its relationships between and within categories should be viewed as a whole concept that represent the experiences of trainees in varying combinations and with varying level of influence to each individual trainee.

CHAPTER 5

DISCUSSION

5.1 Overview

This chapter discusses the results of the study, which have been presented in Chapter 4. The transfer of training themes emerged from data analysis that has been grouped into five major categories, each of them having properties as well the relationship to each other's. The first four categories represent stages of experiences and the fifth one is the factors influencing ABC training transfer that started with the beginning stage to the final stage of transfer progression. The chapter also discusses the construction of a substantive theory of “engaging in the training transfer progression” that can be used to describe and summaries experiences undergone by trainees who have attended the ABC training. The five major themes that have been identified to fit the model were motivation to learn, training performance, motivation to transfer, transfer performance and individual factors that influence transfer. Evidences presented in Chapter 4 describes those categories using participants' own words that have either conveyed the said meanings or interpreted from statements made by participants that linked to the stages of transfer progression.

5.2 Transfer of Training Progression

The experience of transfer of ABC training encountered by participants

were categorised into four stages in progressions. The first stage was motivation to learn the training, followed by the training performance (i.e. training reaction, understanding and self-efficacy or perceived ability to perform), then proceed to motivation to transfer, and finally ended with the transfer performance. Another category emerged was individual factors that influence the progress of transfer of ABC training. The findings have similar views with Campbell (1988) and Tannenbaum and Yukl (1992) that state the influence on learning and individual behaviour are different. The authors also suggest researchers to examine the relationship between personal factors in order to ensure effective training. The finding in this study also supports another result of meta-analysis study conducted by Colquitt and LePine (2000). The authors argues that transfer of training variables that are considered important in the particular context of training include motivation to learn, the declarative knowledge, skills acquisition, post-training self-efficacy, reaction, transfer, and job or organisational performance.

5.2.1 Motivation to Learn

Motivation to learn was the first stage of training transfer progression experienced by trainees. The stage has four properties; desiring to learn knowledge, desiring to acquiring skills, to advance learning of existing knowledge related to ABC and to master the knowledge and skill. The properties emerged in this study are related to a study by (Nijman, 2006) that viewed motivation to learn as an employee's willingness to follow, involvement and commitment to learning activities in order to achieve certain objectives. The stage also related to other results obtained by scholars that define motivation as the direction of training, intensity, and persistence learning-directed behaviour in the context of training (Smith et al., 2008; Colquitt and LePine (2000) and also Kanfer (1991). Besides, the findings also highlights the current direction of study mentioned by Tannenbaum and Yukl (1992) that remark on current trend followed by researchers that started to divert their attention to study on training motivation factors. It also answers the concern mentioned by Cohen (1990) who argues the motivation to learn is believed to have a direct relationship with learning. The author states that

the area is not received enough attention in most studies. This study has also identified a motivational factor for the motivation to learn as a valence related factor. Valence was related to valuing the benefits gained from ABC training such as valuing ABC method as attractive, valuing ABC training outcome as important strategically and valuing ABC objectives as having attractive feature).

5.2.1.1 Factors Influence Motivation to Learn.

Finding of this study answers statement made by Baldwin et al. (2000) that states these training prerequisites are not given enough attention by researchers. The authors argues on the effect of this situation that has caused the least effective training result, which unable to produce the desired outcome of transfer of training. This study has also identified some individual factors influence motivation to learn. These factors can be classified as demographics factors (such as *knowledge*, skill, experience and ability, i.e. KSAE) and also work related personality factors. According to Colquitt and LePine (2000), Demographics refer as individual factors that mostly related to gender and age. However, researcher found it did not influence the transfer of training. Some authors argue that due to lack is a theoretical rationale, demographic factors are less studied by researchers. Thus, only small number of studies includes demographics, general experiences and knowledge, skill and ability to their studies on transfer of training (Sohal and Chung, 1998).

The finding of this study shows that one of KSEA factors, (i.e. perceived ability or pre-training self-efficacy) has a strong link and influences motivation to learn, the first stage or category in the transfer of training progression. The findings support previous studies which identify trainee's characteristics such as personality, ability to learn and transfer, personal learning goals, job and career utility, commitment to work, perceived support for learning and transfer at work place all affect motivation to learn and also the transfer of training (Nikandrou et al., 2009 and also Switzer et al., 2005). The influence of pre-training self-efficacy on

motivation to learn conveyed by participants explains the reason of having confidence to perform cost improvement was due to some previous trainings received by participants in the area related to cost control or cost estimation. The knowledge from these trainings may lead and motivate them to learn the ABC in order to gain new knowledge and skill that may help them in performing cost improvement. The evidence also shows that participant's confidence prior to training has demonstrated believe on his/her own ability to learn ABC. Indeed, participants who were having higher position in organisations such as managers or decision makers were having higher confident level due to their job attachments and responsibilities. Furthermore, pre-training self-efficacy that affects motivation to learn can be described as participants were looking forward to learn ABC knowledge due to the their work position that developed their pre-training self-efficacy. The trainee also demonstrated the believe on ability to learn as having prior knowledge on ABC, or having prior experience on problem solving, or demonstrating confident when relating his/her previous achievement on cost improvement prior training. The findings supports the previous studies which have found that self-efficacy correlated strongly with motivation before the training as well as positively influence the training transfer (Yamkovenko and Holton, 2010; Switzer et al., 2005). The finding reveals similar view with Bandura (1997) definition of self-efficacy as "an individual's beliefs in his/her ability to organise and execute courses of action required to produce a given performance". The finding also explains Colquitt and Simmering (1998) argument that trainees who are diligent normally have higher self-efficacy and a strong desire to learn the training content.

The findings of the current study are also related to Chiaburu and Marinova (2005)'s study which also claims that self-efficacy is positively relates to pre-training motivation, which also acts as a significant predictor to transfer. Another support to the current finding is related to a statement made by Kanfer and Ackerman (1989) that argues cognitive abilities that can interact with the motivation to improve results. This study agrees to the finding made by (Rummler and Brache, 1990) that shows trainee's self-efficacy (i.e. trainee's own judgment on the ability to perform tasks) and trainees who have high level of self-confidence

generally performs better, which means the factor influences transfer performance through motivation to transfer. Other KSEA related factors such as knowledge, skill and experience were not found to have direct influence to motivation to learn; however they may have an indirect linked to motivation to learn through pre-training self efficacy. The result of this study explains further suggestions in literatures that factors such as mental ability (Sikalieh, 2003), own judgement on ability to perform task (Neo, 2002) and demonstrating high level of self confident (Baldwin and Ford, 1998) also influence transfer and that also links the pre-training self-efficacy to the various stages of transfer progression, including motivation to learn and training performance.

The study has identified that work related personality factor influence motivation to learn. The finding addresses the concern voiced out by Colquitt and LePine (2000) that states the “past study has shown that training motivation was a function of variables related to job involvement, organisational commitment and career commitment and career planning/exploration. However, the study of these variables was limited”. Thus, the author suggests that future research to give the attention into this matter.

The work related personality factors identified in this study were job/career utility, job involvement, locus of control and attitude toward learning or training. The findings have similar view to the study by Holton (1996) that suggests four categories of variables as the major influence on motivation to learn, which are willingness to learn, job/work attitudes, personality factors and motivation to transfer learning. In this study, job/career utility factor that influence transfer was described by participants as desiring to learn ABC for the purpose of improving performance in the present job, or to help the trainee to prepare him with knowledge and skill for his/her career in the future (i.e. such as to prepare the skill demanded for the trainee’s career in the future work career, when the person move to another company, then he/she will be able to practice it in the new company the knowledge and skill he/she has learned during ABC training). It also related to definition made by Nikandrou et al., (2009) that states job utility often views as the

degree of usefulness of the training contents in improving performance of trainee's job, while career utility as the degree of usefulness to the trainee's career in general.

Another factor, job involvement was also found to influence motivation to learn. This factor drives the desire to learn ABC that was targeted to solve problem in existing job. It was due to trainee's feeling of high responsibility to overcome the problem faced by the company, such as by attempting to help management to solve cost related issues or by perceiving ABC knowledge will help the trainee to improve the status or image of his/her company. The finding provides similar description with the definition given by Brown (1996) on job involvement as "the level of individual involvement to identify his/her psychological status with work to show the importance of his/her works and for a person's self-image as a whole". The result is also in line with the finding of a study made by Colquitt and LePine (2000) that shows the variable for jobs/careers, job involvement, organisational commitment, career planning and career exploration are positively associated with a various outcomes, including training motivation. The result also eco similar reason as given by Martineau (1995) who suggests that those who are very involve with their work/job are more likely to be motivated. He justifies that participants who attends training with the intention to increase their skills on work improvement can create the feelings of self-worth. The study also answers the concern highlighted by Steer and Porter (1991) who argues that the work/job attitude is another factor less explored in the previous study related to its influence on motivation to learn. The author also proposes that job attitudes have an influence on learning motivation. This result provides similar findings with the study by Facticeau et al. (1995) and also Mathieu (1988), who have also found a positive link between job involvement to motivation to learn and to training reactions.

Another factor, locus of control was found to influence the motivation to learn ABC. It indicates that the trainee who has internal locus of control at his/her company is also able to determine the outcome related to learning, and therefore can apply the content of training to improve cost in his/her area of work. Trainees that have position as managers or directors are normally have internal locus of control as compared to new engineers or supervisors that do not have the capacity

to decide on most of issues related to their works as well as to fully utilise the training. The result from this study shows similar view to the result of a study made by Colquitt and LePine (2000) that found locus of control has a strong relationship to motivation to learn. This indicates that trainee who has internal locus of control is more likely to display higher levels of motivation to learn.

The trainee's attitude of toward training was another factor found in this study to influence the motivation to learn ABC. The person's positive attitude on learning would make a person to have desire to learn a new knowledge and skill. It may also create the desire to deepen one's understanding on the existing knowledge the person has already had.

5.2.2 Training Performance

The training performance was another category or stage of training transfer progress that emerged as the result of this study. The category includes reactions to training, learning and gaining skill and also post-training self-efficacy.

5.2.2.1 Reactions to Training

Reactions to training were identified in this study as sub-categories of training performance. Reactions have two major themes, the affective reaction and utility reaction. The finding is similar with description provide by Kirkpatrick taxonomy of learning (Kirkpatrick, 1976; 1996; 2005). The author clearly identifies reaction as an important level of the training evaluation model. The taxonomy evaluates four levels of training phases; reaction to training, learning, behavioural change, and the results. The result also serves a similar description to another training framework developed by Holton (1996). However, the author proposes a

model consisting of three major influences on learning; trainee reaction, motivation to learn, and ability (Holton, 1996; 2005).

(a) Affective Reaction

In this study, it was found that participants described the affective reaction situations in six dimensions; feeling satisfying with training environment, feeling satisfying with training contents, feeling satisfying with delivery method, feeling satisfying with speaker, feeling satisfying with training aids and feeling satisfying with networking opportunity. The results explain further the description made by Kirkpatrick (1994; 1998) that affective reactions are related to level of satisfaction trainees with a particular training programme in general. The author placed trainees' reactions as the first measurement for training effectiveness as described in his taxonomy of Four Level Training Evaluation. Another author, Griffin (2012) who describes affective reactions as the degree to which employees are satisfied with a training experience also argues the factor is considered one of the means used by researchers to gather information about training. The link of motivation to learn to affective reaction was also described by trainees as desire to join the ABC training to affect their feeling of satisfaction to environment of ABC training and also to training contents, delivery method, the speaker, and other matters related to the training.

(b) Utility Reaction

The result of this study also describes that utility reaction as concerning the relevance of ABC training to the nature of their work such as the procedure on analysing processes, on objective of cost control and also on overall areas of business decisions. However, a small number of participants have voiced out on the lack of connection to their present job scope which were considered very limited. The link of motivation to learn to utility reaction was described by participants as desire to understand and later use the knowledge on ABC method and expressing the relevance of the present training to the nature of work such as to reduce cost in order to stay competitive in the industry. The findings show

agreement to a previous study that states trainees who perceive the value and usefulness of the training are very much likely to apply the training learned in the workplace (Burke & Hutchins, 2007; Chiaburu & Lindsay, 2008). The current study also elaborates further the statement made by Rummler and Brache (1990) that perceives the relevance of training material influences transfer. Therefore, both utility reaction and affective reaction were found in this study to affect understanding and training self-efficacy at the stage of training performance.

(c) Individual Factors Influencing on Reaction to Training

In this study, only perceived ability or pre-training self-efficacy out of KSEA factors has been identified to influence the training performance, such as affective reaction. Thus, participants who have pre-training self-efficacy showed positive links to affective reaction during training. Furthermore, participants who were having confident to perform tasks or to learn or utilise the training also showed high feeling of satisfying with training content, speaker, delivery and also to general training environment. The pre-training self-efficacy influences utility reaction, which is a property of training performance. Hence, participants who have pre-training self-efficacy have recorded a positive to utility reaction during training. This explains that by having confident to perform task or to learn and utilise the training may affect the attitude of trainees. Therefore, this factor was able to drive participants to search for connection of ABC training to their present job scopes, such as by identifying areas in the present work requirements that are relevant of the content of the training. The result support previous studies that revealed perceived ease of use of the training influences positively perceived usefulness (Mbarek, R., 2011; Davis, 1993). It may also relate to research that argues self-efficacy factor is positively influence the training transfer in general (Yamkovenko and Holton, 2010; Switzer et al., 2005).

Work related personality factors have been identified in this study to influence reactions to training. The factors were job/career utility, job involvement/organisation commitment, locus of control and attitude toward learning or training. Job/career utility and job involvement/organisation commitment were identified to

influence affective and utility reaction of the training. It was due to having satisfied with training and finding the relevance of training to work situation affected by the concern to improve the present work performance as well as to prepare for the future career of that person. The findings of this study show agreement with research that describes organizational commitment as a person's belief and acceptance of the goals and values of his/her organization and shows willingness to exert extra effort for the organization such as to maintain membership in the organization (Malik et al., 2010; Porter et al., 1974). Further, the result also agrees with Ekmekçi (2011) and (Stup, 2006) that describe job involvement as the degree of association of individuals' works to their total self-image, which mostly traced to the earlier definition provided by Lodahl and Kejner (1965). The finding also confirms to Noe and Schmitt (1986)'s study which states a significant relationship exists between job involvement and learning. The result also shows similar view to the study by Facticeau et al. (1995) and Mathieu (1988) that suggest individuals with higher levels of organisational commitments or career utilities are more likely to see the training as useful exercises for them and for their organisations. Another study that show support to this finding was conducted by Nikandrou et al. (2009) that argue trainees who were interested in improving themselves at work may also interested in attending the training to acquire knowledge and skills, which would help them in their jobs. Moreover, trainees who believe on the usefulness of training to their current job position may want to be prepared for any future job they dreamed of thus, they are interest to attend the programme.

Organisation commitment was described by participants in this study to influence affective reaction. Further, job involvement was also described by participants to influence utility reaction. Thus, having satisfied with training and viewing the relevance of training to work situation may due to the strong attachment the trainee has with his/her present organisation, such as to have desire to solve his/her company's problem and also having psychologically identified with the person's job. The feeling of high responsibility toward the company, such as attempting to help management in solving cost related problems or by associating learning as able to improve the general company status or image. The results explains another similar meaning given in literature that organizational

commitment is the relative degree of attachment an employee's place with the organization where s/he work for (Ekmekçi, 2011; Stup, 2006). Specifically, it shows a person's strong belief as well as the acceptance of the goals and values of his/her organization, thus he/she shows willingness to exert extra effort for the organization and also wants to maintain membership in the organization (Malik et al., 2010; Porter et al., 1974). The result supports Colquitt and LePine (2000) definition of on organisational commitment as "an individual identity and involvement with organisations such as the acceptance and trust in the organisation's goals and values". The result also clarifies further Tannenbaum et al. (1991)'s finding that states employees who are more committed to their work or job perform better in learning during training. Finally, since job involvement was also argued as positively associated with organizational commitment (Lee, Carswell & Allen, 2000), the result of the current study further explains the statement made by a previous research that argues both job involvement and organisational commitment influence transfer (Velada and Caetano, 2007).

Internal locus of control was described by participants to positively influence affective and utility reaction. Thus, having satisfied with training and finding the relevance of training to work situation was due to the capacity that a person has in determining the outcome of his/her action. Trainees that have position as managers or directors have more internal locus of control as compared to new engineers or supervisors that did not have the capacity to decide on most of issues related to the training. Participants belong to those who are able to make decision and have higher task responsibilities in their company. The result provides similar finding to Silver et al. (1995) that shows the locus of control is related to the acquisition of skills, and to another study by Noe and Schmitt (1986) that shows that locus of control has a relationship with the training performance.

Attitude toward training was described by participants to positively influence affective and utility reaction of the ABC training. Thus, having satisfied with training and finding the relevance of training to work situation was due to the interest in learning and acquiring new knowledge and skill that a person has to deeper their understanding and to complement the existing knowledge.

5.2.2.2 Learning

The second property of training performance identified in this study was learning or gaining ABC knowledge and skill. The property has four dimensions of learning features; understanding facts and concepts, understanding objective, understanding situation to use and gaining skill of ABC method and procedure. However, some participants voiced out the lack of understanding on the procedure or on gaining practical skills. They required helps from others to provide them with further guidelines in ABC implementation. This result of this study provides similar description on the types of ABC knowledge transferred explained by Haskell's that describes the similar types of knowledge in learning and transfer and also the types of cognitive knowledge being transferred (Calais, 2006). In this study, the knowledge transferred at the learning stage was understanding the conceptual and declarative knowledge. Other type was on acquiring procedural knowledge or skills. The result of this study also supports part of Baldwin and Ford (1988) suggestion that "declarative knowledge is essential for learning to occur, while the rest (i.e. procedural, strategic, conditional, and theoretical knowledge) all are needed to facilitate transfer". Referring to learning as the sub-stage of training performance, this study has found that participants described learning of ABC training as by having a clear understanding on the objectives and also the ways to implement ABC, which is similar to description made by Sohal and Chung (1998). This description is also similar to Londe and Ginter (1999) that states "the training performance means trainees' ability to understand and develop skills on how the ABC system works".

The link between motivation to learn to the understanding was described by participants as connecting the motivation to learn to their understanding of facts and gaining of ABC skills. The link within the category of the training performance was also established between both affective reaction and utility reactions to understanding. The result provides similar view with previous studies which have found that trainee's motivation influences learning culture and training performance during training (Chiaburu, 2005; Yamnill and McLean, 2001). It also further explains the finding by Baldwin et al. (1991) and also Martocchio and

Webster (1992), that identify similar link between motivation to learn with learning. Furthermore, Baldwin et al. (1991), Colquitt and Simmering (1998) and also Tannenbaum et al. (1991) also suggests a positive relationship between individual factors to learning via motivation to learn. Thus, they suggest a positive relationship between motivation to learn to training performance.

The link between affective reaction to understanding can be described as feeling satisfied with training environment (i.e. such as the content of ABC training, the presentation by speaker, hand-out provided during the training) that has helped trainees to learn the knowledge and acquired the ABC skills. The link between utility reaction to understanding was described by participants as feeling relevance of the training's to present job scope (i.e. such as to identify areas of the present work requirements that were relevant to the content of the ABC training) that has helped trainees to learn knowledge better and also can support trainees in acquiring ABC skills during training. The result of this study supports the finding of a study on naval recruits by Tannenbaum et al. (1991) that suggests that "participants who had positive reaction to training and also for those who have learn more, were more likely to have high motivation after training". This finding also explains the relationship in (Kirkpatrick, 1976) training evaluation model, however according to Colquitt and LePine (2000) they claim a weak support among the reaction and learning (i.e. to understand the knowledge and skill acquisition). The same goes for the findings by Dixon (1990) which shows that there is little correlation between reaction and learning. Indeed, Dixon (1990) and also Warr and Bunce (1995) classify the reaction into three components (i.e. enjoyment, relevant, and perceived hardness), found no significant relationship between reaction and training performance. Nonetheless, Mathieu et al. (1992) notes "the important of reaction factor in training as moderator between training motivation to learning as intermediaries of other links". Moreover, Holton (1996) asserts that "a positive training reaction may still help learning; therefore trainee who is more successful during learning is expected to have more positive reaction to the training experience". Furthermore Holton (1996) argues that "although most studies suggest that the reaction was not related to understanding knowledge and acquiring skill,

however, in practice, most training practitioners never ignored the reaction of their trainees”.

(a) Factors Influencing Understanding

Among KSEA factors, perceived ability or pre-training self efficacy of the trainees has been identified to influence the understanding, one of the sub-category of training performance. Other factors such as knowledge, skill and experience (KSE) may also influence pre-training self-efficacy, which may indirectly influence understanding. Thus, a person who is having pre-training self-efficacy believes on his ability to learn would also enhance his/her understanding of ABC knowledge and gaining skill. This was due to confident that a person has on performing existing tasks and to learn and utilise the training, which then contributed or enhanced his/her understanding of the training content. The finding shows similar results with other studies by Martocchio and Webster (1992), Mathieu et al. (1992) and also Quinones, (1995) that indicate positive relationships between self-efficacy, motivation to learn, and learning.

Work related personality factors have also been identified to influence understanding. These factors were job/career utility, organisation commitment, locus of control and attitude toward learning or training. Job/career utility was described by participants to influence understanding. The influence was due to the concern that participants have to improve the present work performance or also in order to prepare for his/her future career that has made him/her to desire to learn and gain knowledge and skill in to help him/her to improve. This result of this study explains further the finding by Somers and Nelson (2001) and also by Tannenbaum, et. al, (1991) that suggest trainees’ job attitudes and commitments may effect transfer performance through motivation to learn, learning and motivation to transfer.

Organisation commitment was also mentioned by participants to influence understanding. The factor enhanced understanding since participants who have strong attachments to their present organisations focus themselves to learn in order

to gain understanding that aimed to solve company's problem. Participants who have higher responsibility and have greater attachment with their companies normally attempt to help management in solving cost related issues. They associated learning with improvements to improve the status or image of their companies in general. The result explains further a statement made by Mowday et al. (1982) that argues "individuals with high organisational commitments will tend to exert their effort voluntarily for their organisation". This result also confirms and provides further explanation on the findings made by Somers and Nelson (2001) and also Tannenbaum et al. (1991) that suggest trainees' job attitudes and commitments may effect motivation to learn, learning and transfer.

Internal locus of control was also identified to influence understanding. The result showed that those who have capacity to determine the outcome of the action were normally have better focus in learning that aimed to gain understanding and help them to create positive outcome. Trainees who are managers or directors normally have more internal locus of control as compared to new engineers or supervisor that did not have capacity to decide on most of issues related to the training. Those trainees who demonstrated better understandings belong to a group of participants who have the power to make decision and those who have higher task responsibility in their company. These finding explains the statement made by Silver et al. (1995) that shows locus of control is related to the acquisition of skills. Further, it supports previous literature that argues trainees that are categorized as having internal locus of control will exert more effort in training by gathering relevant information as well as more active in seeking means to fulfill their expectancies such as promotion and recognition (Wehrmann et al.,2003; Noe, 1986). Another author, Noe and Schmitt (1986) states similar result that locus of control has a relationship with the training performance.

Attitude toward training was also identified to influence understanding. Participants who were having focus in learning to gain understanding were those who have always interest in learning new knowledge and acquiring new skill. They have personal attitudes to deeper understanding of their existing knowledge that they already had. The finding explains further the study made by Chiaburu (2005)

that found trainee motivation to have a direct relationship with continuous-learning culture and suggests that attitude toward learning/training (i.e. continuous learning attitude) predicts motivation to learn as well as to training performance (i.e. positive reactions and training self efficacy).

5.2.2.3 Training Self-Efficacy

Training self-efficacy is related to the capacity or ability to use the training that also related the generalised self-efficacy. It is more focus on the ability to apply ABC procedure and concept, and toward initiating cost improvement in their works. A small number of participants have voiced their concern for having less self-efficacy, and they were hoping to get helps when they were ready to implement ABC in the future. This result elaborates further suggestion by Cooper and Zmud (1990) and also Elangovan and Karakowsky (1999) that state “training performance and perceived transfer lead to transfer”. It also describes further the study made by Rummler and Brache (1990) that suggests trainee self-efficacy (i.e. trainee’s own judgment on the ability to perform tasks) and also trainee who has high level of self-confidence generally performs better in the transfer of training. The result of this study also further confirms and explains the statement made by Colquitt and LePine (2000) that argues that “self-efficacy after training, which is the most frequently studied and identified by researchers is considered as motivational aspect of training performance”.

The link between motivation to learn to training self-efficacy was identified in this study as the relationship between motivation to learn and training self-efficacy, a sub-category of training performance. The result shows the relationship between desire to learn the training and demonstrating the confident to perform the present job related to cost improvement. It support previous studies that have identified trainees motivation before the training influences transfer of training and also maintaining the used of training outcomes (Devos et al., 2007; Chiaburu and Tekleab, 2005). Another possible view the indirect link between two components

was given by Gist and Mitchell (1992) that suggests motivation to learn has a link to learning outcome. His view is based on a theory that identifies indirect links of the cognitive ability to the learning through enhancing self-efficacy of trainees.

The link within sub-categories of the training performance was between affective reaction to training self-efficacy. It can be described as feeling satisfied with the speaker presentation or satisfied with hand-out provided during the training that has affected trainee to be build confident to use the training respectively. Similarly, the link between utility reaction and training self-efficacy can be described as feeling ABC method as a suitable tool for cost control and process improvement has led to a person to demonstrate his personal belief that the training has given to the trainee with a clear idea on how to put the content into practice respectively. The result supports and explains further the finding of the study of naval recruits by Tannenbaum et al. (1991) that identifies and suggests that “trainees who have more positive reactions to training and those who learn more are more likely to have high motivation after training”.

The link between understanding to training self-efficacy can be shown through a connection that existed between them on the transfer progression. Thus, understanding the purpose and the concept of ABC, has led to build trainee’s confident to practice or use ABC knowledge and skill to improve the operation costs in work place. The result helps to support Bhatti and Kaur (2009) clarification on the link between reactions-understanding-self efficacy by arguing that trainees believe more strongly in their capabilities to perform given tasks if they perceive that the content of the training is similar to their current tasks. Further, the result also confirms and further explains the statement made by Tannenbaum et al. (1991) who argues that “performance during training (i.e. understanding and skill acquisition) has a clear relationship with motivation after training”.

(a) Individual Factors Influencing Training Self-efficacy

Perceived ability or pre-training self-efficacy is the only KSEA factors that was identified as to influence the post-training self efficacy. Other factors such as

knowledge, skill and experience (KSE) may have influence on pre-training self-efficacy and therefore, may indirectly influences post-training self-efficacy. The pre-training self-efficacy influences understanding due to participants who was having pre-training self-efficacy has able to enhance his/her the belief and confident to implement what was learned during ABC training. The result supports a previous study by Al-Eisa et al. (2009) that found trainee who has high confidence on his/her capability to learn during the training may also has high confidence to apply the contents of the training into workplace.

Work related personal factors which influenced the post-training self-efficacy were job/career utility, organisation commitment, locus of control and attitude toward learning or training. Job/career utility was described by participant that has enhanced understanding as participants who were having focus in learning that aimed to understand ABC knowledge and skill was due to their concern to improve the present work performance or for preparing to build their future career. Another factor, organisation commitment, was also identified to influence the training self-efficacy. Participants who believed on their ability to perform the learned knowledge and skill from ABC training may due to the results of having strong attachment to the present organisation. Therefore, a person who has the purpose of solving company's problem or due to feeling of high responsibility toward the company's matters normally attempts to help management in solving cost related issues. They may associate learning from ABC training with the effort to improve the general company status or image. The result of the current study may partly explain the previous findings that state organisational commitment and job involvement influence transfer (Velada and Caetano, 2007), since research also states that job involvement was also positively associated with organizational commitment (Lee, Carswell, & Allen, 2000). Internal locus of control was also influence post-training self-efficacy as described by participants in this study. It showed by having capacity to determine the outcome of an action has enhanced the belief to perform tasks related to ABC knowledge and skill. Trainees that have position as manager or director were normally have more internal locus of control as compared to new engineers or supervisor that did not having the capacity to decide on most of issues related to the training. They belong to a group who can

make decision and normally has higher task responsibility in their companies. This result provides a few additional points that help to describe further the finding by Silver et al. (1995) that shows locus of control is related to the acquisition of skills, which lead to improve training self-efficacy through a linkage of locus of control-skill acquisition-self efficacy. Another factor, attitude toward training was also described by participants to influence training self-efficacy. The results shows that belief on one's ability to perform the learned knowledge and skill from the ABC training was due to a person's high interest in learning and in acquiring new knowledge and skill as they wanted to gain deeper understanding that will enhance the existing knowledge they already had.

5.2.3 Motivation to Transfer

Participants described the categories of motivation to transfer using five sub-categories or properties, i.e. having desiring to apply ABC procedure or analysis, desiring to adopt ABC concept in work place, desiring to apply ABC to reduce cost in work place, desiring to apply ABC for general business strategy and desiring to apply ABC to gain experiences or expertise. The finding is parallel with Gegenfurtner (2011)'s description that states motivation to transfer is defined as a desire to apply the knowledge and skills learned in training on the job in productive ways. It also agrees with the description made by Holton (1996) that argues "training motivation is considered as equivalent to motivation to transfer because it measures on how trainees' perceive the relationship between training success and future job performance or transfer result". Thus, trainees who felt the training has fulfilled their needs and expectations are expected to be more motivated to transfer learning into their work place. The motivation to transfer was considered as a major stage in the training transfer progression. Thus, it can be considered as an important contribution to training transfer study, as Wlodkowski (1996) claims that "most studies so far did not include this factor in their study, despite of the common concerns by researchers about the perception on the ability to use the training in life, society, or place of work. Indeed, Naquin and Holton (2003) echo the similar concern and argues that "due to the fact that the study on motivation to learn as a

dependent motivation variable so far have very limited scope that only focus to the learning environment in the organisation”. The result has answered these calls by identifying transfer processes that aims to improve work through learning from training that also relates it to motivation to transfer the ABC training.

5.2.3.1 Motivational Factors of Motivation to Transfer

The result of this study identified three motivational factors for motivation to transfer; valence, expectancy and instrumentality. The valence related factor was described as work satisfaction for solving problems, feeling of accomplishment, valuing of recognition, valuing of having an effective strategy, valuing of personal philosophy and valuing of the success image. The result of this study describes further the work of Mathieu et al. (1992) that relates motivation to transfer to expectancy theory by Vroom (1964). The author also describes that “researchers refer valence as individuals' beliefs regarding the desirability of outcomes obtained from training”. He also argues that “the training motivation is a function of trainee’s perceptions; therefore the training performance means to increase job performance, which also leads to feelings of personal accomplishment such as gaining higher salary, and having greater opportunity for job’s promotion”.

The motivational aspects related to expectancy were described by participants as expecting transfer to improve works or processes, expecting to work on continuous improvement, expectation to use ABC as performance monitoring and expecting transfer to enhance the trainee to excel. The result agrees with Yamkovenko and Holton (2010) as they relate to Expectancy Theory (Vroom, 1964) that says expectancy means that individuals believe on their effort will result in some sort of payoff, thus the author argue that if trainees believed they will be promoted after attending the training, they are more motivated to learn and also to transfer. Further, the result of this study also confirms the finding made by Holton (1996) that argues expectancy factor (i.e. as referred to the expectancy theory by Vroom (1964)) may explains about trainees who have expectations on the potential

effort to use the training such as to achieve their personal goals, receive recognitions and rewards would be more motivated to transfer the training”. This study supports and also provides more explanation to the suggestion by Rummler and Brache (1990) on the effect of motivational factor (i.e. outcome expectancies) to other factors such as training performance and transfer implementation.

The motivational aspects for instrumentality were focusing to produce outcomes such as aiming for financial reward, to achieve higher work position, to become an expert in ABC, to be recognised and respected in the job and to be able to lead others. The findings describe further and support previous study conducted by Chiaburu and Lindsay (2008) on a professional development intervention and found that trainees’ belief that performing a specific behaviour related to the training will lead to a desired outcome, thus lead to a conclusion that instrumentality as a primary driver to motivation to transfer and also transfer of training. The finding show similar description as stated by Holton (1996). The author relates this factor to the expectancy theory (Vroom, 1964) to explain that “individuals will be motivated to transfer the training if they believed their efforts will lead to improve job performance”. Thus, the author also suggests that an individual who has successfully learned and feel more confident to implement training content will be more motivated to transfer training. It should be noted that some participants in this study have indicated to sustain their intention to transfer the ABC training at the later time; however, the reasons were not due to the training factors discussed in this study.

The link between affective reactions (i.e. a sub-category of training performance) to motivation to transfer was also identified in this study. which supports a previous study by Gegenfurtner et al.(2009) that describe the link as trainees’ expression of their satisfactions in the delivery and activities performed during training, which in turn affects the motivation to transfer the training. Similarly, another link between utility reaction to motivation to transfer was also identified in this study. The participants showed that by seeing relevance or usefulness of the training has led the trainees to have desire to implement ABC training into their work place that aimed to improve works or to reduce the

operation costs. Both of the findings of the current study related to the training reactions show support to previous studies. The findings help to explain a statement made by Liebermann and Hoffmann (2008) that states training reactions influence the actual transfer of training through motivation to transfer. The study has identified another link which was the link between understanding and motivation. It can be described as understanding the knowledge and gaining skill of ABC method has enhanced participants' motivation to transfer the training, such as desire to implement ABC at their work place in order to reduce operation cost, the desire to use ABC in developing manufacturing software, desire to use ABC as mean to align with own personal philosophy on waste elimination. The finding of this study that identified a link between knowledge and skill acquired in the training to motivation to training transfer support several studies that have indicated cognitive and skill aptitudes of trainees also influence transfer (Devos et al., 2007; Kontoghiorghes, 2004). The link between post-training self-efficacy to motivation to transfer was described by participants as confidence to implement ABC in term of achieving a specific company's objective, confident to perform cost calculations and procedures that lead to desire to use ABC knowledge and skill in order to reduce cost or confident to use the method to develop software for helping manufacturing companies to reduce costs. The result reveals similar finding with several studies that have also found trainee's self-confidence shows a strong role in predicting the motivation to transfer (Khalil, 2012; Sookhai and Budworth, 2010; Devos et al., 2007). It also agrees that a persistent belief in trainee's capacity to perform a range of tasks and situations is one of the important factors to overcoming difficulties in transfer of training (Yamkovenko & Holton, 2010). The findings of this study that shows the relationships of sub-categories of training performance to motivation to transfer provides further explanation on the transfer process and clarifies the statement made by Colquitt and Simmering (1998) that argues "trainees who valued outcomes training (i.e. related to learning) showed increased in motivation levels".

5.2.4 Transfer Performance

This study has classified the fourth stage of training transfer progress as the transfer performance. The stage was identified as the final stage of the training transfer progression. Three sub-categories that emerged for transfer performance were formulating transfer strategy, actual use or implementation and perceived organisational result from the transfer implementation. Similar concept is proposed in the previous study by Holton et al. (2000) that refers transfer of training as the level to which trainees apply the training contents, training skills, training attitudes and behaviours learned to their work.

5.2.4.1 Transfer Strategy

In this study, the first sub-category of transfer performance identified was transfer strategy. Participants described transfer strategy in five dimensions; identifying objective to implement ABC, identifying situation to use the training, identifying resources needed to use the training, identifying requirements and approaches and finally, identifying constrains at the work place that may inhibit the implementation. This study provides similar explanation to Gunasekaran (1999) study on ABC implementation in small and medium size companies, where the author describes ABC implementation strategy as identifying adequate resources in design, implementation and operation stages of ABC implementation important steps to be followed before actual implementation is performed. The finding also is in line with the statement made by Londe and Ginter (1999) on application of ABC data base for data collection system and calculations, which lists the important requirement for ABC implementation.

In identifying objectives to use ABC, participants viewed it from many aspects; making profit objective as the strategy, to develop the software tool, for cost estimation, for cost control, for help in making decisions, for solving financial issues and for developing leadership in industry. Next, in identifying situations,

participants viewed it from aspects such as; identifying scope, identifying problems to apply ABC and identifying product and processes that suitable to analyse using ABC method. This result of this study provide similar explanation to Fleishman (1972) study that states “identify situation to use the training is essential step before implementation stage”. Identifying approach was another dimension of transfer strategy. It was viewed by participants as; identifying priority areas to be focused in implementation, planning approach for implementation, methods used for cost analysis and planning strategy on linking ABC application to daily practice. This study provides similar description to Gunasekaran (1999) statement that describes “communication between the implementation team and the rest of the company, including the end user of the system is important to ensure the successful ABC implementation”. The final dimension of transfer strategy was identifying constraint to implement ABC in work place. Participants’ viewed it in five dimensions; clarifying challenge to get staff to support the implementation, discovering the need to get help from the ABC expert due to the lack of practical experience, perceiving the cost issues were beyond management control, seeing the present job scope not involved cost improvement area, and finally lack of priority for ABC implementation as other initiatives were preferred by the company’s management. The result of this study also agrees with part of the statement made by Chen (1996) that states the barrier to ABC transfer of training implementation was due to the lack of ABC expertise in areas of selection of activities, cost drivers and cost calculations. Moreover, the study also identified the link between inhibitors to transfer implementation stage of the transfer performance. The result supports the study by Rummler and Brache (1990) that identifies one of situations that contribute to the delay on the implementation of ABC in work place, such as due to problem related to leadership quality of the trainee as the author considers crucial in order to introduce ABC method as a new manufacturing concepts.

The relationship of motivation to transfer to sub-categories of transfer performance was also identified by participants in this study. They indicated the connection between motivation to transfer to these sub-categories, which included transfer strategy (i.e. ABC adoption), transfer implementation (i.e. ABC adaptation) and transfer outcomes (i.e. perceived organisational result). The connection was

described by participants as “the intention to implement ABC to work place has led participants to make transfer progress from motivation to transfer to the stage of transfer performance”. The progress started with creating the transfer strategies such as; identifying objective to implement ABC, identifying situation to use the training, identifying resources needed to use the training, identifying requirements and approaches and identifying constrains at the work place that may inhibit them to implementation ABC. Previous studies by (Chiaburu, 2005; Yamnill and McLean, 2001) also agree with the finding of this study as they argued motivation factors influence training performance and also perceived transfer of training.

5.2.4.2 Transfer Implementation

In this study, it was found that participants viewed transfer implementation as determining the level implementation, determining the type of application, performing cost analysis of manufacturing operations and calculating cost of activities and processes of manufacturing operations. This results of this study confirms the first three of six ABC implementation steps proposes by Krumwiede (1998) to ensure the long term ABC implementation and diffusion (i.e. initiation, adoption, adaptation, acceptance, reutilisation and infusion). Further, Stepleton et al. (2004) also emphasis on ability to conduct analysis, which is the third property of transfer implementation found in this study as an important requirement to the actual use of Activity-Based Costing in workplace.

The link between transfer strategy to actual implementation within transfer performance category was described by participants through showing the connection between transfer strategy component (i.e. adopting step of ABC implementation) to the actual transfer implementation (i.e. adapting ABC to work place). The link was described as “identifying the strategy to use ABC to control operation cost that has led trainee to actually implemented of ABC method in work place such as; collecting and analysing data using Excel’s spread-sheets with identifying and prioritising operational expenses to be cut and also developing plan

for further improvement actions”. This result further describes the previous studies that show motivation to transfer has important relationships in influencing training transfer (Devos et al., 2007; Burke & Hutchins, 2007). In another study by Werner et al. (1994), the authors also note that “by having a transfer strategy such as by setting goal during and after training can influence the transfer of training positively”. The result of this study also agrees with some parts of the finding by Holton (1996) who has suggests “three major influences on the transfer of learning that can lead to individual performance; motivation to transfer, transfer design or strategy and the transfer conditions or environment factors”. Overall, this result also elaborates further the finding by Elangovan and Karakowsky (1999) that proposes the effect of individual and environmental factors on transfer of training by providing the detail each of each factors to transfer of training progression stages.

Factors Influencing the Actual Transfer Implementation

In this study, participants’ perception on environmental factors or transfer climate was found to influence the actual implementation, a sub-category of transfer performance. The result confirms the statement made by Chiaburu et al. (2010) that argues the transfer climate continues to be a consistent predictor of training transfer besides other factors such as individual and training design that also influence transfer. The finding is also in line with previous results of studies by Tracey et al. (1995) that defines organisation climate as “trainees’ perceptions of factors of the work environment”. The author states that “positive transfer climate influences the transfer implementation of the training content on the work place”. Similarly, findings by Rouillier and Goldstein (1993) and also Salas et al. (2006) indicate the transfer climate to have a major impact on transfer performance, which provides a similar view with the finding of this study. The finding has contributed a new input to the study on factors influencing transfer of training made by Rummler and Brache (1990) and also Elangovan and Karakowsky (1999) that claim “only a limited study has focused on external factors such as environmental factors that influencing transfer”. Several authors also urge that more investigations of this factor are needed in the future (Brown and McCracken, 2008; Burke and Hutchins, 2007; Cheng and Ho, 2001). However, in this study external factors (e.g. work environment) were viewed from the perspective of trainee (e.g. perceived transfer

climate by trainees) and not from others perspectives such as management and other interested parties related to the transfer of ABC implementation. Thus, in this study, it was identified that environmental factors perceived by participants that is directly influenced to the transfer implementation were; management support, peers support, organisational learning culture, opportunity to use and finally factors that are free from barrier to transfer of training.

Management support is found to influence the actual transfer implementation of the transfer performance stage. Participants showed the transfer implementation was successfully transferred at work place were due to positive and strong support from management. The supports were in term of providing encouragement and also for providing other company's resources to implement ABC. The result supports claims made by several authors that state organisational climate in particular senior management support for programme outcomes is becoming increasingly important for effective transfer (Roberson et al., 2009; Jackson and Bushe, 2007). Indeed it agrees with Dirani (2012; 2007) that argue management support is crucial for the success of the training; therefore they should prepare to work with their supervisors as well as trainees to let the learned knowledge and skills from the training to be used in the workplace. The result also explains further a statement made by Clark et al. (1993) that argues that "the support from manager can paint a picture to trainee that training was related to the job, which will enhance the motivation to transfer the training". This result also could explains further the finding made by Sohal and Chung (1998) and also Gunasekaran (1999) that argues "top management support are important for the success of ABC implementation". Finally, the result is in line with the finding of a study conducted by Ismail Azman et al. (2011) in Malaysia that also found the Government employees have perceived support from their managers to plan and implement the training had increased training transfer in their organizations.

The results of this study also showed peers supports have positively influenced the actual transfer at work place. The supports were on positive encouragements and help to obtain resources needed. It agrees with previous studies by several authors that argue trainees who perceive that their peers give

support with their efforts to apply newly learned skills are more likely to transfer what they have learned in training (Wehrmann et al., 2003; Tziner et al., 1991). The result also provides the similar message with the finding of studies made by Baldwin and Ford (1988) and also Fecteau et al. (1995) that argue “managers or peers supports such as by participating in learning activities can motivate and help trainees to implement the learned skills in the workplace”. The result also confirms the finding by a study conducted by Colquitt and LePine (2000) that shows that “supervisor support, peer support and positive transfer climate have been linked to transfer implementation”. This finding of this study also explains further the statement made by Sohal and Chung (1998) that suggests factor that links to trainee motivation to implement ABC is easy to get cooperation from organisation’s member on ABC project. However, this study proposes that peers support influence the transfer of ABC training at the transfer implementation stage of transfer performance.

Organisational learning culture was also found to influence transfer implementation at work place, which is one of the property or sub-category of the transfer performance category. The influence to training transfer performance was due to the motivation factor and positive learning culture that promoted the learning initiative of the trainees in effort to find a new and better skill that can help to improve work place efficiency. The result describes further two studies, firstly, by Tracey et al. (1995) who has found that “a positive transfer climate predicts the extent to which trainees will participate in the transfer of training in their workplace”; and secondly, by Holton (1996) who has argues that “trainees who work in a positive transfer climate tends to have motivated the transfer of higher training”. This result of this study also explains further the finding made by Sohal and Chung (1998) that suggests a factor that links to trainee motivation to implement ABC is value and attitude of trainee, such as trainee shares similar values and attitudes within organisation. Although, some scholars have identified the link of learning culture to transfer of training through mediators including peer support and supervisor support (Dirani, 2012; Holton et al., 2000), however, the finding of this study suggests that organisational learning culture is directly influences transfer implementation, which is a sub-category of transfer performance

of ABC transfer training progression.

Opportunity to use was also found in this study to influence transfer implementation of transfer performance category. The implementation of ABC was due to the opportunity to use such as availability of time, space and resources that encourage trainees to try to practice what was learned during ABC training on a smaller scale before it can be used at larger scale at real work situation. The result confirms claims made by several authors that in order for trainees to transfer the learned skill from training, they should have opportunities to apply it to the workplace (Grossman et al., 2011 and also Burke & Hutchins, 2007). The results reinforces further the findings from earlier studies made by Rouiller and Goldstein (1993) and also Tracey et al. (1995) who identify four main factors of positive transfer climate; adequate resources that are available for transfer, feedback such as from a supervisor to remind the trainees related to the training, an environment that provides opportunity for trainees to use the training skills, and rewards for successful producing desired results from transfer implementation. This result also provides similar reason given by Sohal and Chung (1998) who proposes job related variables such as time availability for trainee to implement the transfer of ABC knowledge and skills in workplace are factors for successful ABC transfer implementation. Thus, this study proposes that opportunity to use the training influences transfer implementation at the transfer performance stage of ABC training transfer progression.

Finally, the absent of barrier to transfer was found in this study to influence transfer implementation. This was due to the present of barriers to transfer became inhibitors that prevented the transfer of what was learned during ABC training. Those barriers were related to absent of the positive transfer climate mentioned by trainees as has been discussed in the above sections. The result of this study describes similar barrier as stated by Brown and McCracken (2008) from a study on the transfer of management intervention which identified barriers that affect training transfer were lack of time such as trainees felt frustration due to overloaded by other responsibilities and also unsupportive organisational culture for transfer such as the lack of understanding regarding the use of training material in the

workplace, or lack of appreciation about the benefits of transfer from senior management. It also supports the statement made by several authors that identify the barriers to ABC implementation were due their perceptions of less priority given to ABC usage over other initiatives as the results of “work pressure and resources scarcity in applying ABC and/or due to other higher priority tasks than ABC implementation at work place” (Stapleton et al., 2004) and also Sohal and Chung, 1998) Indeed, this study also proposes the negative link of inhibitors to the transfer performance stage of ABC training transfer progression at the transfer implementation sub-stage. Another barrier identified in this study to hinder transfer implementation was trainee’s job scope. The barrier considers an important factor that may hinder the transfer of ABC training is similar to the study made by Stapleton et al. (2004) that argues on “the ability to obtain relevant information from organisation’s database as important to conduct detail ABC analysis”. Thus, trainee who does not have the permission to assess the related information may unable to successfully transfer the content of ABC training he/she has learned into work place.

Other factors mentioned in literature to influence transfer of training were learning styles (Hofstede, 1984), language barriers (Burnett, 1990) and IT competence (Lertwongsatien, 2000). However, those factors were not identified in this study to influence the transfer of ABC training. Possibly, these factors act as moderators that may indirectly influence transfer of training through other factors. This assumption needs to be verified further, which is beyond the scope of this study.

5.2.4.3 Perceived Organisational Results

This study has identified seven dimensions of perceived organisational results, a sub-category of transfer performance of ABC training transfer progression; reducing operation cost, improving customer relationship, improving supplier management, promotes creativity, improving performance measures,

improving business strategy and decision makings, and also building cost leadership position. However, in a recent study by Aguinis and Kraiger (2009) that reviewed the previous studies only found benefits from training to organizations were in term of performance improvements such as profitability, effectiveness, productivity and operating revenue as well as other benefits such as reduced costs, improved quality and quantity. As such, the result of this study that identified wider range of benefits can be clarified by a statement made by Nur Naha Abu Mansor (2005) that suggests “benefits from ABC implementation for Malaysian’s organisations were differ according to each company and it was up to the organisations to evaluate their success of the implementation”.

Related to reducing operation cost, participants perceived the implementation of ABC at work place has led to lower overall company's costs in six aspect; creating cost saving of all areas of business operation, having benefited from ABC usage through lowest operation cost, improving customer relationship, better supplier management, creating creativity and changing business strategy. The results is in line with description provided by Gunasekaran (1999) who identifies an advantage of implementing ABC which was in helping companies to estimate more accurate product costs and improve their operational performance.

Improving customer relation was also described by participants in this study in six aspects; as making customer to follow a new business model, ability to manage cost leading better leading to customer gain, having power to choose customers, having better position on customer management, passing benefit from better supplier management to customers, and also segmenting customers into their performance. The result confirms and describes further part of the result of a study conducted by Chongruksut (2002) that lists benefits of the implementation of ABC, such as accurate product/service mix, assistance in cost reduction or cost control improvement efforts, better performance measurement and increased customer satisfaction.

In terms of gaining position in cost leadership position, participants perceived the result that the company has able to gain cost leadership position in

industry was due to its lower operation cost. This result provides similar finding to the study reported by Nolan (2004) that identifies competitive advantage factor as one of the reasons why some companies implement ABC or to use ABC as a competitive strategic tool. Another perceived organisational result identified in this study was on creating a new and better business model which was different than others companies that are normally based on bottom line or profit focus. This finding can be considered as a new finding to transfer of ABC training outcome, which has not been explored by the previous study in transfer of training. However, the result can be related to a statement made by Naquin and Holton (2003) who argue that “the primary training goal must be set to improve the work outcome such as quality and productivity improvement, and it should also become focus of the research efforts in the future”. Indeed, the author also wondered why so far mostly the studies have focused mainly on motivation to learn or motivation to train as the dependent variable, yet that factor are less connection to the work-improvement. Thus, the result of this study also answers the concern by the author and has identified the participants’ perception and showed the link of transfer implementation to the perceived organisation results (i.e both factors are within the transfer performance stage). The link was indicated by the adaptation of ABC to work place (i.e. such as analysing operation cost, identifying and implementing cost improvement initiatives) have led to organisation results (e.g. reducing operation cost, improving customer relationship, improving supplier management, changing to better business strategy). Finally, as argued by Tharenou et al. (2007) that claims research related to organizational benefits is relatively few as compared to research on benefits at individual and team levels. the findings of this study has contribute an insight on the impact of transfer at organisational level.

5.3 Theory Development

The grounded theory method employed in this study was aimed to develop a theory or model regarding transfer of training. However, the approach used in this study is particularly the opposite way from the deductive study approach in most studies that tries to prove the existing theory (Glaser and Strauss, 1967 and also

Glaser, 1978). In this study, researcher has employed the Constructivist Grounded Theory approach that gathered and analysed data to generate categories that were grounded in the data. During the final analysis, a core category was identified, selected and conceptualised as “engaging in training transfer progression/trajectory” (as shown in Figure 5.1). This core category was selected to function as pivotal role that links to other categories, which were identified in this study. The core category also describes the experience and shows relationships of factors influencing the transfer of ABC training for practicing engineers in manufacturing companies. Thus, “engaging in training transfer progressions/trajectory” can also be viewed as a model to represent the experiences of trainees in dealing with transfer of ABC training. The model consists of four stages of transfer progression. It describes how trainees traversed in transferring and sustaining progress in transfer of ABC training; started with (1) motivation to learn before attending the training, followed by (2) training performance during attending the training, and then proceed to (3) motivation to transfer and finally ended with (4) transfer performance. The last two stages were the extended stages when trainees have returned back to their work places after training. The model is hoped to answer the call made by Holton (1996) who argues that “there is a significant lack of research to develop the theory of training evaluation for use in human resource development (HRD)”. The author also argues that, “although the training evaluation model which is known as four-level evaluation model (Kirkpatrick, 1976), is recognised by many as a standard in the field of training, the model is only a taxonomy of training outcomes and has flawed to be used as training evaluation”. Thus, the author argues that “from the perspective of research, the Kirkpatrick’s training evaluation (Kirkpatrick, 1998) is not enough to be considered as a model and could not be validated”. Holton (1996) also argues that “the role of trainees’ reaction in the Kirkpatrick’s model is very different and should not be viewed as a major training outcome”. Indeed, the author also argues that “too many unmeasured variables that cannot be confirmed including its meanings and their linear relationship within each level that do not exist”. Therefore, the author pointed out that “researchers cannot rely on the taxonomy to provide the value and expecting its impact and results from the training undertaken”.

Firstly, the model developed in this study illustrates the first stage of trainees' experiences on engaging in training transfer progression, called motivation to learn. The stage represented a crucial step that relates the desire to learn the ABC knowledge and acquiring the skills of ABC method. At this stage, it identifies that motivational factors that drives participants' intention to learn are valence related factors such as valuing the ABC training benefit such as attractive, important strategically and also having attractive features.

The second stage of the training transfer progression is the training performance. The stage includes affective and utility reactions to the ABC training, follows by learning that is related to understanding facts and concepts and also using skill of ABC method. Then, it progresses to post-training self-efficacy, in form of generalised self-efficacy, which represents believe on ability to apply concept and procedure of ABC method that aims toward initiating cost improvement in the workplace. The training performance stage leads trainees to progress to the next stage, called motivation to transfer. This third stage can be described as desire to apply ABC procedure/analysis, adopting ABC to reduce cost at work place, or for general business strategy, or to gain experiences or expertise.

The motivational factors of the motivation to transfer are related to valence, expectancy and instrumentality factors. First, the valence related factor can be described as valuing the outcome of ABC implementation. Second, expectancy factor is related to the expecting of using ABC to improve work/process for continuous improvement or performance monitoring or enhancing motivation to excel. Finally, instrumentality factor can be viewed from aspects such as; to the focus of implementation to produce outcomes such as to gain a financial reward, to achieve a better work position, to become an expert in ABC, to be recognised or respected in the current job, or to be able to lead others in the work place.

The final stage of training transfer progression is the transfer performance. The stage has three properties or levels; creating a transfer strategy (i.e. ABC adoption), followed by the actual ABC implementation (i.e. ABC adaptation) and finally, perceived organisational results as the transfer outcomes. Firstly, the

transfer strategy includes; identifying objective to implement the training, identifying situation to use ABC, identifying resources needed and requirements, identifying approach to implement and finally identifying constrains as barrier to implement. The next property is the actual implementation or the adaptation of ABC method into work place, which is the second level of transfer performance stage. The level describes actions to ABC implementation such as performing analysis of the cost of operations and determining the costs of manufacturing processes. The final level of transfer performance stage is the perceived organisational results, which can be viewed from seven aspects; improving return of investment (ROI), reducing operational costs, improving customer relationship and supplier management, promoting creativity, having performance measures, helping business strategy and supporting better decision makings and also building cost leadership position.

The study also identified individual factors that influence the training transfer progression; self-efficacy prior training, work related personal factors such as job and career utility, commitment to job involvement/ organisation commitment , locus of control and attitude toward training and perceived transfer climate. Firstly, pre-training self-efficacy has been identified to influence motivation to learn. It has a positive link to all training performance properties; affective and utility reaction, and also to learning and post-training self-efficacy. In addition, work related personal factors also influence all training performance (e.g. both affective and utility reactions, learning and training self-efficacy). The study identifies three aspects of job and career utility; career advancement, working for professional development and working for job advancement. Job involvement/ organisation commitment, internal locus of control has also identified to affect both motivation to learn and training performance stages. In addition, attitude toward learning (e.g. learning from experiences, looking forward continuous learning and taking challenges toward learning) also affect motivation to learn and training performance. Finally, factors related to perceived transfer climate (e.g. perceiving management support, peer support, opportunity to use, adopting learning culture and absent of inhibitors for ABC implementation) also influence transfer performance stage at the implementation level.

The transfer of ABC training model constructed in this study is comparable to Holton (1996) transfer of training framework. However, the author proposes a measurement model to be used for research purposes with having a set of primary and secondary variables. The framework includes the primary variables that limited to ability, motivation to learn, reaction to learning, transfer design, motivation to transfer, transfer condition, expected utility, linkage to organisational objectives, and also external events. Holton (1996) also provides other variables as the secondary variables, which include willingness to learn, job attitudes, personality factors, achievement for training. However, the major different between researcher's transfer of training model to LTSI framework proposed by Holton (1996) is that the current model views training transfer as "a process" of engaging trainees in going through the transfer progression. Moreover, the current model also views training transfer from a dynamic perspective and describes transfer as evolving in a few stages that follows a trajectory of times and phases. In contrast, Holton's framework is more incline toward a static model that integrates and explains the links of each variables of transfer phenomenon.

The model also describes how trainees identify the progress of training transfer as it becomes the true experiences to them. The concept of "engaging in training transfer progression" was selected to act as the pivotal role to integrate all four stages of training transfer progressions that were experienced by trainees; before attending the training; during the training and after the training. Firstly, the motivation to learn has emerged as the initial stage of transfer, which occurred before the training session. At this stage, trainees adopted a route that may drive their actions and to build their courage to commit for subsequent progression into the training performance, which is the second stage of the transfer. At the second stage, trainees have developed awareness, understanding, applying and also gaining self-efficacy on ABC cost improvement. These occurred during or immediately after training period as they also may relearn the knowledge regarding ABC. They possibly unlearn the conventional assumption or approach in dealing with cost improvement in manufacturing operations and replace it with ABC approach they just learned. Accordingly, training performance leads trainees to progress into the third stage, motivation to transfer and finally to transfer performance stage. The last

two stages extend behaviour of participants from learning and self-belief that occur in the training environment to their workplaces, which may require them to be more committed as they may regain their strength from personal motivation to act, based on the previous experiences they have gone through. Thus, each stage or category of transfer maps a progression route that occurs before, during and after training in a flow toward a progression that targeted to fulfill and complete the final stage of the transfer of ABC training.

In evaluating the outcome of this study, researcher has also raised a question on what happen to make this progression possible. Thus, the answer to this question can be described using the model developed that shows four categories of training transfer stages that can be used to provide intervention and monitoring the transfer of ABC training, which occurs in progression steps. The results also reveal that these stages spread over its empirical themes that actually were grounded from data of participants' experiences. Thus, the concept "engaging in training transfer progression" proposes as a new model of transfer of training. It was generated from empirical interpretation that actually represents the meaning of transfer experience conveyed by trainees who attended the ABC training. In finalising the model, researcher integrates each of progression stages in order to unify the theory as a whole concept to represent a model of transfer of ABC training.

Factors influence the training transfer progression.

In progressing through the transfer stages, trainees involve themselves and also dealing with factors that enhance or inhibit the transfer of training at each stage of progression. The researcher treats a category of "factors influence the training transfer" by identifying and interpreting data, codes and categories and then, integrated and constructed them into theoretical explanation. Thus, the result in this study reveals that participants that have motivation to learn the ABC training have to put aside their other attractions and work pressure demands at their works and utilising their pre-training self-efficacy to build personal motivation to participate and engage in ABC training. Trainees may also utilise their work related personality factors to drive their desire to attend the training. The drive may complement by factors such as for advancing their present job positions or in

continually building their career/professional utility in the future employments. Indeed, some trainees may be motivated to learn by their high association or commitment to the existing job and perceived the training as a mean to assist them in accomplishing current job demand that may require knowledge and skill from the training. However, the motivation to learn could simply come from the participants' general positive attitude toward learning and training on ABC that has been part of their personal factors always.

5.3.1 Engaging in Training Transfer Progression

The core theme of “engaging in training transfer progression/trajectory” has been chosen as the final outcome of this study. The theme means dealing with trainee's own feeling, thinking and acting starting from the day that a participant having an intention to learn about ABC training, then later bring him/her into next level of steps that evolve towards completing training transfer progress as a result of his/her action. For most trainees, engaging in transfer training progression acknowledges their personal progress into deeper stages of commitment toward completing the training transfer progress. Engaging in training transfer progression also allows trainee to voluntarily sustain the path of progress toward transfer without being force to commit him/her to act without considering the reality of himself/herself and daily work environment around him. By having committed to engage in training transfer progress, a person can make their personal decision to sustain and move forward to act on what they have committed. The theme of “engaging in transfer training progression” can be summarised in a diagram that represents a model of transfer of ABC training as shown in Figure 5.1. The commitment of engaging in training transfer progression can help a trainee to gain the knowledge and grow their skill related to ABC training.

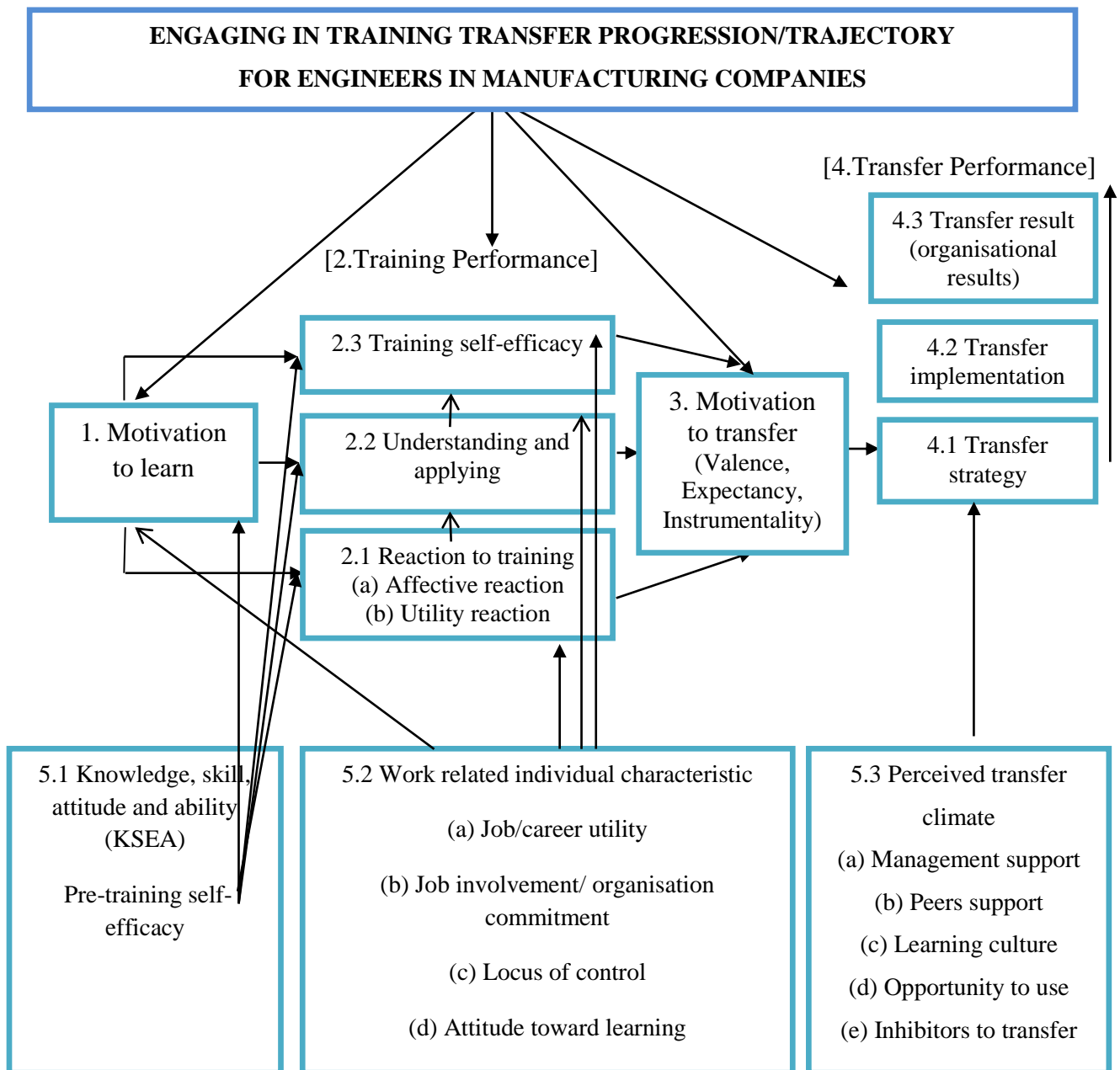


Figure 5.1 Engaging in training transfer progression/trajectory

Viewing from stage perspective, engaging in the training transfer progression attracts the trainee's attention into discovering the options available at the present stage, and then attract once perception about the possibility to proceed to the next stage in forward direction of training transfer progression. Feeling and thinking about the present stage may seem promising that may lead the trainee to

involve or progress further to sustain and extend his/her commitment into deeper and higher level of transfer of ABC training and toward what is seen rewarding and possible to him/her.

Viewing from structural perspective, “engaging in training transfer progression” is a strategy for managing the transfer of ABC training toward advancement in progression stage. The strategy will guide the person on choosing the next action as time pass and new situation arise. Committing to this transfer strategy, may guide a person to evolve from the beginning stage of the transfer progression to the next stage as time passes. Thus, the theme can explain series of emotional or cognitive element attached into the trainee’s experience toward progression of transfer of ABC training. Some trainees, especially new engineers with less experience, express greater concern on the possibility to seek opportunity to use the training in their work place than their concern or feeling on understanding about ABC training.

Viewing from situational perspective, engaging in training transfer progression helps to remind trainee on the possible future application of the training. Reflecting back on what was learned during training and situation at the work place provides opportunity to assess trainee’s confident on using ABC method and the need to use the training. Thus, trainee may recount a relevance of applying the ABC knowledge and skill to his/her work for cost improvement such as in formulating a strategy to use ABC in his/her work. Then, by implementing ABC at his/her work place, trainee may perceive the result of the transfer that indicates the successful progress toward completing the final stage of the transfer.

One concern in this study that should be highlighted is that researcher should continuously put efforts in gathering data to seek the possible alternative proof in order his effort to bring the grounded theory analysis beyond the definitive evident by. Another concern in employing the constructivist approach as was used in this study, readers should be aware that categories identified may not necessarily serve as core variables. However, researcher still showed the relationships among those categories and to the core category by describing them using researcher’s own

word, “engaging in training transfer progression/trajectory” as the core theme. The theme or category was viewed from three major concepts; stage, structural and situational perspectives, which also can be considered as a substantive theory developed in this study. It describes the meaning reflected by trainees on their experiences on engaging in the training transfer progression at a specific setting. The theory supports Calais (2006)’s statement on a claim by Haskell that “the transfer of training study is virtually non-existent, particularly in academic instruction or in research which aimed to understand transfer phenomenon as well in identifying factors to facilitate transfer”. The finding that describes the relationships of factors influencing transfer of training provides answer to Tannanbaum and Yukl (1999)’s proposal for a further study to understand how individual trainee factors influence the transfer of training. Furthermore, the theory developed in this study may also answer a statement made by Broad and Newstrom (1992) that argues that “HRD model or the more academic instructional model on the transfer of training is still lacking and restricted”, therefore the author urges for a further research related to this area. Finally, the overall result of this study provides further clarifications on the training transfer model developed by Baldwin and Ford (1998) as the model did not clearly describe on how the input factors interacts to influence transfer (Elangovan and Karakowsky, 1999).

5.3.2 Training Transfer Trajectory Model

In order to make the model serve as a guideline to practitioners on implementing a successful ABC transfer of training, a more practical yet comprehensive model was constructed based on the theory of “engaging in transfer training progression/trajectory”. The construct is presented as “Training Transfer Trajectory Model (TTTM), which is shown in Figure 5.2. This simplified yet comprehensive model describes the overall transfer of training progress and incorporates factors influence the transfer of ABC training. Indeed, TTTM shows and predicts the advancement to the pursuit of transfer of ABC training through a flow path of experiences consists of four stages that guide trainee toward the bigger or more involvement, which is beyond of the previous stage of transfer progression.

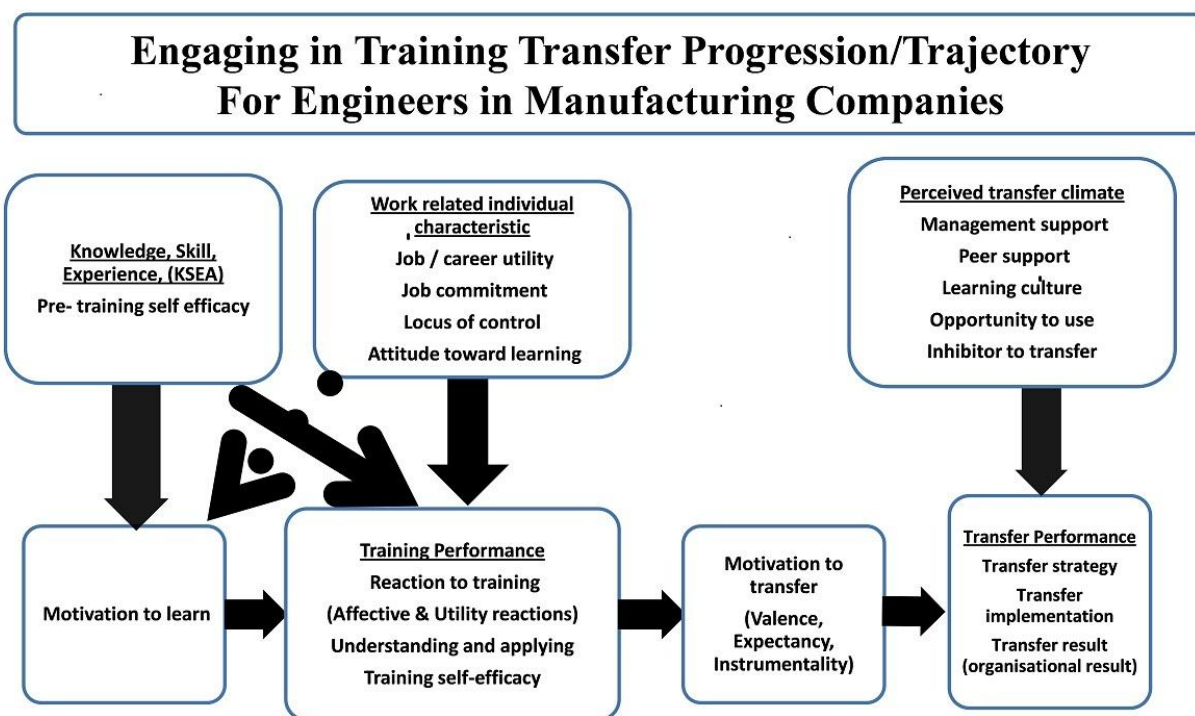


Figure 5.2 Training Transfer Trajectory Model

The term “trajectory” can be described metaphorically as an individual's progress through a transfer path of the transfer progression. In a wider sense, TTTM refers to an ordered set of intermediate stages faced by a trainee in a dynamic and sequential form of process that moves through the evolution of time. Thus, researcher proposes TTTM as the outcome of this grounded theory study. Furthermore, the model also offers an alternative perspective to a more conventional models of transfer of training exist in literature.

In order to elaborate further the model develop in this study, researcher examined the uncertainty faced by trainee who engages in the transfer progression, as he/she needed to cope with progress at each stage of transfer. Therefore, TTTM interprets and explains the meaning conveyed by trainees as the result of their interactions at stages of transfer or also on factors influence them. Although for purposes of clarity, each transfer stage is presented and discussed separately,

however, the transfer progress and its related factors that were experienced by trainees at each transfer stage, involved in varying combinations. Therefore, in a larger view, TTTM that was developed in this study aims to describe the specific phenomenon of the transfer, which may constitute the larger phenomenon that deals with handling of transfer of training.

5.3.3 Comparing TTTM with the Existing Models

Several features that differentiate TTTM which was developed in this study from existing models discussed in literatures that are worth mentioned. Firstly, the model is developed based on the study made within the context of Malaysian organisations as compared to existing transfer of training models that were developed based on studies in foreign contexts (i.e. mostly in developed countries, thus may limit some applications due to environmental appropriateness). Secondly, TTTM is considered as a new model that is developed from a different approach (i.e. qualitative grounded theory method) as compared with the existing models which mostly developed based on quantitative methodologies (for example see Holton, 1996 and Kirkpatrick, 1994). Thirdly, TTTM has several other additional features which make it as a unique model such as identifying transfer activities in more holistic or wider range of training activities (i.e. before, during and after training); viewing training transfer in a progression stage that evolves towards the final stage of transfer and having more key components of transfer as well as can identify most factors that influence transfer as mentioned in literature. The detail features of TTTM that differentiate it from existing models such as LTSI (Holton, 1996) and Four Level Training Evaluation (Kirkpatrick, 1994) are explained further in Table 5.1.

Table 5.1: Comparing TTTM with the existing training transfer models

	TTTM (Current study)	LTSI Holton (1996, 2000)	Training Evaluation Kirkpatrick (1994)
Model descriptions	<ol style="list-style-type: none"> 1. A model developed based on the study made within Malaysian. 2. A new model that is developed from different approach (qualitative grounded theory method). 3. Holistic that covers wider range - before, during and after training. 4. Views transfers in progression and evolving towards the final stage. 	<ol style="list-style-type: none"> 1. Based study in foreign context, only tested locally. 2. Existing measurement model developed based on quantitative methodology. 3. Views transfer start during training and after training. 4. View transfer construct as the static relationships. 	<ol style="list-style-type: none"> 1. A taxonomy of training evaluation 2. Used for quantitative evaluation. 3. Training evaluation use four levels of progress. 4. Unclear relationships difficult to test.
Key component	5. Motivation to learn is the 1 st stage of training transfer progression that occurs before the training.	5. Motivation is only factor affecting learning/transfer. Reactions are in significant.	5. Reactions are the 1st level of training evaluation.
	6. Training performance is the 2 nd stage of transfer occurs during training, consists of four properties, affective/utility reactions, learning and post-training self efficacy.	6. Learning is the 1st achievement of transfer; no research evidences that link in actual transfer outcomes (Burke & Hutchins, 2007).	6. Learning is the 2nd level of the evaluation, relationships not clear (Giangreco et al. 2009; Bates, 2004).
	7. Motivation to transfer is the 3rd stage of transfer occurs after training explains by expectancy, instrumentality and valence. Viewed as a new concept and contributed to existing literature (Yamkovenko & Holton, 2010).	7. Individual performance is the 2 nd achievement of the transfer, measures the result of job application of individuals. Provides a broader construct than behaviour change.	7. Behaviour change is the 3rd level of the evaluation, a generic measure of impact of learning to individuals.
	8. Transfer performance is the final stage of transfer, consists of transfer strategy, transfer implementation and perceived organisational results.	8. Result is the final achievement of the transfer, measures performance at organisational level.	8. Result is the final level of evaluation, a generic measure of impact of change of behaviour.
Factors influencing transfer	9. Pre-training self-efficacy, job involvement, organisation commitment, locus of control and attitude toward learning influence motivation to learn and training performance. Perceived management support/ peer support/ learning culture/ opportunity to use/ inhibitors influence transfer performance. Environmental factors indirectly influence transfer via perceived transfer climate factors.	9. Includes 16 factors such as ability factors, perceived feedbacks/supports/transfer climate, motivational factors and personality traits directly affecting transfer. Job involvement, organisational commitment, self efficacy, learner readiness and also personality traits indirectly affecting transfer.	9. Not included.

As compared to the existing transfer of training framework proposed by Holton (1996) that represents more general applications, TTTM is only limited to

assessing the transfer of training from a single learning case, which is related to ABC training for practicing engineers in manufacturing organisations. Therefore, in order to employ TTTM as a new concept of transfer of training in general, it will need a further study that is beyond the scope of this study. Moreover, TTTM is an initial model of transfer of training, which was based on the outcome from an exploratory study; therefore it should be further developed or validated further in the future study to make it a more complete model.

5.4 Value of Findings of the Study

This study has successfully reported the findings that are considered a valuable contribution to the area of transfer of training. The descriptions of the experience on engaging in transfer of ABC training for practicing engineers in manufacturing companies may add to the existing literature on the training transfer particularly, for the study regarding the transfer of ABC training, which is very limited as reported in literature to this date. The substantive theory of transfer of ABC training constructed as the final outcome in this study also provides a new perspective that looks the transfer as the step of progression as compared to the previous studies reported in literature that view transfer of training more from the static models and relationships among variables. Moreover, the theory developed in this study explains relationship within and among stages of transfer and includes factors influence the transfer. Thus, the finding provides description on the transfer stages and factors that need to be addressed by all parties related to training (i.e. individual trainees, management of organisations and training practitioners) in order to ensure the successful transfer of ABC training.

As described in Table 5.1, the model developed in this study suggests that fostering motivation to learning among the participants should be a starting point for a successful training transfer process. The intervention can be done before the training by providing more valuable training-related information that related to trainees' needs and wants, as well as to help trainees to improve their personal value such as having confidence in carrying out works, having appropriate

job/career goal, building commitment to works/organisations, empowering them more and cultivating positive attitude toward learning. On other side, creating perception of positive transfer climate is another very important factor that affects the final result of transfer. Thus, the model suggests that the non-training related factors, such as work environment should also be addressed, especially by management in manufacturing companies in order to prevent the transfer problem from occurring that would waste resources, efforts, money, which also may lead to the loss of competitiveness of the manufacturing sectors in Malaysia.

5.4.1 Implication of Findings

The outcome of this study reminds all related parties to training; educators, practitioners, human resource personals and individual trainee regarding the important issue of the transfer of ABC training. The related parties are suggested to improve their desire to increase knowledge on how to deal with the transfer of training that can contribute to improve individuals and the organisational performance. In addition, educators and training practitioners should make plan and design the training programme that can develop the interest among the potential trainees to learn. They must ensure the content of training meets the needs in term of its relevance to personal and organisation goals. Furthermore, training should be delivered in a manner to provide satisfaction and easily followed in order to promote positive feeling, enhance learning and help trainees to build confident to apply the understanding and skill learned to their works. Then, trainees should be encouraged and guided to appreciate the value and possibility of outcomes gained when they apply the training content into their works. Finally, trainees should also be guided to formulate the appropriate transfer strategy that suitable to their need and situation of their work. Eventually, an effective transfer strategy would lead trainee to actually implement the training and after successfully implementing it, they would eventually gain positive perceptions on the outcome of the transfer.

Regarding individual trainees, they should also explore the information about the training to see the value and relevance of training in order to enhance

their motivation to learn prior training. They also need to enhance their motivation and improve their attitude toward their work such as confident in performing work, having high courage to improve their job's position or work's carrier, building stronger commitment to their work and organisation, enlarging the influence in the work and continue building knowledge through learning.

On the other side, management of organisations should also give the commitment to provide a positive transfer perception to trainees in order to ensure the training attended by their practicing engineers are successfully transfer to work. The strategies suggested are by providing support, guidance and feedback to the trainee to use the training that focuses towards achieving the goals and priorities in his/her company. The management should also make initiatives to build the positive transfer climate within organisation through creating support to trainees to transfer the training. These initiatives include; using reinforcement and rewards, building teams that support the adapting transfer of ABC training, cultivating continuous learning culture, providing opportunities for trainees to use the training at workplace, and finally removing obstacles or constrains that may hinder and prevent the transfer from occurring, such as lack of resources or supports or priorities.

In short, management of manufacturing companies that intent to ensure an effective transfer of ABC training to work place should pay attention and consider all four stages of training transfer identified in this study when making planning and implementing ABC training programme. Thus, they should monitor the trainees along the path of transfer progression, before and after the training, which aims toward achieving the desired organisational performance. Furthermore, they also should pay attention on factors that influence the transfer of ABC training by making efforts to develop their staffs and provide positive transfer climate in the work places as identified in this study. Finally, educators and training practitioner should design more comprehensive interventions that cover all stages of the training transfer progression described in this study.

5.4.2 Contributions of the Study

Contributions to theoretical aspect.

The current study has identified and developed a model that covers more “holistic” and wider view of transfer of training by identifying the effects across the different stages of training such as before, during, and after training (Velda et al., 2007), which as would be valuable for practitioners to design better and effective training programme and to organisations (Zhao and Namasivayam, 2009). Firstly, it has systematically identified the key components of transfer- pre-training motivation, learning performance, post-training motivation and transfer performance. The model also describes the transfer system within a larger system of human performance level that links to organisational performance level (Chen et al. 2007; Ostroff & Bowen, 2000). Secondly, the model developed views the transfer as dynamic process of engagement in training transfer, which continuously evolved toward a transfer progression, which follows a trajectory of times and phases. It provides a new view of transfer as compared to the existing models which viewed training transfer from static and/ or integrated constructs (for example see Holton (1996) and also Kirkpatrick (1994)). Thirdly, the findings of the current study has advanced and contributed to the existing body of knowledge of training transfer, which argued by Calais (2006) as virtually non-existent with regard to utilise for an academic instruction and for research area which aims to understand transfer phenomenon.

Contributions to practical aspect.

Firstly, the model developed from the current study integrates but simplifies the components of training transfer into four stages of transfer progression, which make simple for use, similar to the taxonomy of Four Level Training Evaluation (Kirkpatrick, 1994) that mostly referred by practitioners and easily understood and applied, thus may provide greater help to busy practitioners in organisations (Giangreco et al., 2010; Hutchins and Burke, 2007). Secondly, the model developed in this study describes training transfer process in stages of progression, which is more practical to understand, follow, monitor, predict and evaluate by practitioners with regard to the transfer path followed by trainees, which in turn offer them

opportunities to use appropriate strategies at each stage of the transfer to improve the training effectiveness. Thirdly, as the field of training transfer is still considered lacking in both practice and academic research (Kauffeld and Willenbrock, 2010), the model developed from this study may provide a guideline to practitioners and contributes to organizations that would gain benefits when their trainees able to transfer the training back to the workplaces (Bhatti and Kaur , 2010).

Contributions to methodological aspect

The qualitative research method used in this study specifically the constructivist grounded theory approach has explored the meaning conveyed by participants on their experiences of engaging in the training transfer process at a specific setting. It has successfully developed a new training transfer theory that was grounded in the data. It describes the components and relationships of the training transfer in local setting (i.e. Manufacturing organisations in Malaysia) which can contribute to theoretical and practical aspects of training transfer (Brown et al., 2011 and Saks, 2000). Viewing from the constructivist perspective, the current study that followed an interpretive approach to develop the theory of training transfer has also strengthened the theory developed in this study (Charmaz, 2006). Thus, the current study has provided a methodological contribution and has advanced the existing transfer of training research. Further, it supports the concerns of some researchers that urge to bridge the research gap which previously dominated by quantitative method or focused on examining factors and models already identified (Brown et al., 2011; Rucco, 2010; Cheng and Hampson, 2008).

5.5 Limitation of the Study

Methodological Limitation

The current research that successfully developed TTTM as a new training transfer model employed an exploratory study approach that has several limitations that warrant mention. First, the model developed in this study has systematically identified and linked the key components of training transfer and factors that are

primary related to each stage of the transfer process, however validation of this model was beyond the scope of the current study, thus it provide new venues for further study to validate the model. Second, as an exploratory study, the current study lacks a large sample that normally followed by the kind of methodology that aimed to prove the validity of the results, thus the findings of this study are not meant to be generalised, however it may be transferable to other similar setting (Patton, 2002). More researches of similar approach using difference settings are needed to further identify the relationships between and within the components of transfer and factors influence them. The findings of future researches may eventually establish a formal theory of training transfer, which can be applied in more general situations (Gasson, 2004). Alternatively, the model may also be validated statistically in future research.

Limitations of the Focus Area of the Study

The current study is limited to study only trainees' characteristics, which is one of the primary factors influencing transfer as discussed in literature (Burke and Hutchins, 2007; Colquitt et al., 2000). Researcher acknowledges the existence of others (especially those related to the training design and environmental factors), but their inclusion would further complicate the findings of the current study and make the model developed to be more complex. Therefore, in order to retain the framework within limited time and resources, researcher had to limit himself to study only trainees' factors that were highlighted in literature as an important but lack of conclusive evidence in influencing training transfer (Donovan and Darcy, 2011; Burke and Hutchins, 2008), while the inclusion of all factors for training transfer remains a challenge for future research in transfer of training.

5.6 Summary

The overall result of this study answers concern highlighted by Cooper and Zmud (1990) regarding the influence of trainees and work environment factors on transfer of training. The author argues on the lack of studies to clarify the interaction between factors in influencing transfer, even though they acknowledge

that most literature identify trainees factors and work environment as factors that influence transfer of training. Thus, the result of this study add on clarifying this issue and shows how individual factors influence transfer of ABC training.

In presenting TTTM as an outcome of this study, researcher also proposes an alternative view that is differ from the current view of transfer of training. Indeed, the proposed model developed in this study have feature that indicate a new perspective over the conventional transfer of training model as described in the above section. Since TTTM is proposed as a “theory of transfer of training”, it also answers a call made by Holton (1996) that urges on the need of further study and develop a complete model of transfer of training, which able to provide a specific outcomes, as well as to identify the influence and relationship of each of the variables to the training performance. Indeed, TTTM incorporates a wider perspective of transfer of training factors including the motivational factors that influence the transfer as well as the reveal of perceived organization results, which leads to improve work as the final outcome of transfer performance. The finding is in line which a suggestion made by Naquin and Holton (2003) that argues researchers “to examine the transfer constructs at a higher level, which involves the motivation to improve work through learning (MTIWL) that links individual motivation to the work improvement’s through learning that involved motivation to training and motivation to transfer the training”. Indeed, the author summarises motivation to improve work through the learning as a relationship to motivation for training and motivation to transfer. The author also argues on the need for organisation “to have an interest on more meaningful result such as work improvement, which is beyond learning”. Therefore, the result of this study serves to explain the above arguments by identifying a transfer of training construct that integrates the motivation to transfer to improve work from learning and also factors that influence the transfer.

Finally, TTTM that was developed in this study integrates yet simplified the transfer of training model into a four stages of transfer progression. The feature of the model is in line with suggestion by Holton (1996) that urges researchers to study further his proposed model, and then try to identify various combinations

construct that aims toward generating a simpler configuration of transfer of training model. The author argues on the flaw in Kirkpatrick's four level training evaluations and points out on the need to have a new but similar model that is suitable to be used by training practitioners; however it must be based on empirical result.

As a summary, to clarify the approach in theory development using Constructivist Grounded Theory analysis, researcher pieced together and interpreted implicit meanings given by participants that constitute the categories identified from the analysis. The approach was done by analysing participant's words conveyed to researcher and translated them into a set of meanings that reflect their experiences. Researcher also seeks to understand actions and feelings of the participants in creating the properties of a category by using codes that able to interpret those statements and actions. This approach was necessarily in order to explore into the tacit meaning of actions and feelings that participants tried to convey. The interpretative analysis employed in this study offers readers the imaginative view of trainee's experiences on transfer of ABC training by linking them theoretically to explain each of the categories. Even though the analysis made by researcher remains more intuitive or may have some impressionistic views, however, researcher has all data regarding participants' perception and actions which are used to support these descriptions and links of each category. As the final remark, it should be mentioned here on the use of the interpretive approach for building a theory as suggested by the Constructivist Grounded Theory approach. Thus, the approach that was employed throughout the study can strengthen or may weakens the theory that was developed. Indeed, the final judgement may depend to the readers themselves. Those who have constructivist perspective may view this approach as to strengthen the theory that was developed as opposed to some who have objectivist perspective that may voice the opposite view (Charmaz, 2006).

CHAPTER 6

CONCLUSION

6.1 Conclusions

As stated in the introductory chapter, manufacturing organisations are still facing challenges to ensure ABC training able to achieve the desired outcomes that aimed to enable participants to practice the training content in order to reduce cost of manufacturing operations. Thus, a guideline for an effective transfer of ABC training should be formulated to help organisations in planning and implementing the training to practicing engineers in manufacturing companies in Malaysia. In seeking to overcome the problems as summarised in the problem statement of this study, four research questions were formed; (1) How do trainees undergone experience of transfer of ABC training?, (2) How do trainees' factors influence the transfer of ABC training?, (3) How does a substantive theory explain the experiences of transfer of training and factors influencing the transfer of ABC training for practicing engineers of manufacturing companies who have attended the ABC's training programme? and (4) How does a model describe the experience of transfer of ABC training for practicing engineers who have attended the ABC's training programme guides the training practitioners to the successful transfer of training? In reviewing literature to guide the direction of the study, Baldwin and Ford's transfer of training model (1998) was used as a starting point to guide this study. The framework of four levels of training evaluation introduced by Kirkpatrick (1976) was also reviewed to complement Baldwin and Ford's model. In order to have more comprehensive view, researcher has also reviewed the transfer of training model introduced by Holton (1996) that is regarded as an example of a

good model, which provides more detail and complete analysis of the transfer of training model.

A qualitative research methodology using grounded theory method was chosen for the study. The study also selected the Constructivist Grounded Theory approach for data collection and analysis. At the end of data analysis, the study has identified a theme of “engaging in training transfer progression” as the core category, which was used to integrate and link to other categories that emerged from the data of this study. Thus, a substantive theory of “engaging in training transfer progression” was constructed to provide descriptions of experiences of trainees and factors influence the transfer of ABC training. Briefly, the theory covers four perspectives; (a) description on how trainees deal with their own feeling, thinking and acting at each of four stages of ABC training transfer progression, (b) description of the voluntarily commitment of trainees to sustain their progress in the path of the transfer stages in forward direction of transfer progression, (c) description of the strategy for managing the transfer of ABC training toward advancement in training transfer progression stage that guided trainees to evolve from the beginning stage to the next stage of transfer progression as time pass and (d) description on the reflection on feelings and actions experienced by trainees and their perceptions on the result gained from the successful transfer toward the completing stage of ABC training transfer progression.

The substantive theory of “engaging in training transfer progression” was also summarised and presented as a construct of transfer of training, called as Training Transfer Trajectory Model (TTTM). The model describes the experience of trainees in advancement of their pursuit of transfer of ABC training. The model consists of four stages of transfer progress, which describes the experiences of path taken by trainees in progressing toward a bigger or more or beyond of the previous stage of transfer. TTTM can be described metaphorically as an individual's progress through a path of transfer of ABC training. It offers an alternative perspective to the conventional transfer of training model discussed in the literature, which normally presented as a static model. TTTM feature consist of several components that

reflects the successful transfer of ABC training as experienced by the participants. The components include (a) the motivation factors of transfer (i.e. motivation to learn before the training and motivation to transfer after training), (b) the parts of the training performance (i.e. training reactions, understanding the content, acquiring of skills and developing confidence in the ability of implement the training content), (c) the parts of the transfer performance (i.e. transfer strategy, transfer implementation and trainees' perception on the organisation results) and (d) trainees' factors influencing the transfer (i.e. pre-training self-efficacy; work related personality factors such as work and career utility, job involvement/ organisation commitment, locus of control and attitude toward learning; and also perception of transfer climate that supports the transfer such as management support, peers support, organisation learning culture, opportunity to use and the absent of training transfer inhibitors).

6.2 Suggestions for Future Study

The study result was derived from data on perception of the participants that represent practicing engineers and executives of manufacturing operations. The findings have successfully achieved the objectives set for the study and answered all research questions related to the transfer of ABC training. However, in order to expand the area of this study, the following suggestions are recommended:

- 1) The future study could include other interested parties as the study participants as they also concern with the effectiveness of the transfer of ABC training such as educators and training practitioners, management of organisations and also training planners and implementers that have links to the trainees. These parties are mostly referred by practicing engineers and executives related to cost improvement in manufacturing companies. Hence, the similar approach of grounded theory study should be used to answer issues raised in literature that urged to establish the framework of transfer of training based on perspective of other stakeholders related to training.

- 2) Similar approach of studies should be conducted with different setting, since the finding of this study is limited to the construction of a substantive theory based on data from a specific setting of manufacturing companies. Thus, more studies over the years are needed to be conducted, which will ultimately produce a formal theory (Gasson, 2004).
- 3) The future study should pursue a comparative study approach using various perspectives of participants such as trainees, management of organisations and educators/practitioners in the field of training that involved in the implementation of ABC in manufacturing organisations. By combining data and analysis using various perceptions, the future of grounded theory study may able to reach findings which can contribute to the establishment of formal theory that can be applied to larger contact of transfer of training.
- 4) The future study using grounded theory approach should also focus to discover other factors that may influence the transfer of training such as the training design, work place environment and other intermediary factors, which can enhance and refine the model developed in this study.

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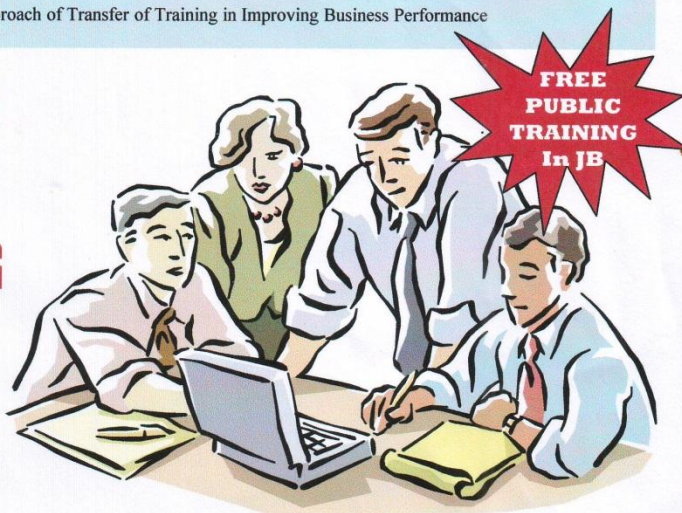
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APPENDIX A1

ABC training brochure 11th November 2010

Using the Latest Approach of Transfer of Training in Improving Business Performance

ACTIVITY BASED COSTING FOR MANUFACTURING COST IMPROVEMENT



**SCHOOL OF
GRADUATE
STUDIES**
Engineering Education
Research

**FACULTY OF
MECHANICAL
ENGINEERING**
Department of Manufacturing
and Industrial Engineering

10- 11 November, 2010
Good Hope Hotel, Skudai, Johor
&
UTM Johor Bahru, Skudai, Johor

Introduction

This 2-day course is designed to equip participants to acquire Activity Based Costing concepts, principles and methods for manufacturing cost improvements. It clarifies problems with traditional costing; justification and reasons for adopting ABC strategy; drives commitment to implement ABC solutions and to secure ABC support from management. Participants will be trained to design and develop ABC system, prepare ABC data collection base, identify and categorize cost pools and cost drivers for ABC calculations. Most importantly, the course will teach participants in using Value-Added drivers toolkit to identify and classify Value-Added and Non-Value-Added activities to improve manufacturing costs. It also demonstrates steps to acquire management support to implement manufacturing cost improvements.

Finally, participants will be guided on know-how to develop action plan to implement improvement, prepare performance report, and recommendations to management for supporting continuous improvement strategy.

Course Methodology

- Lectures
- Workshop
- Discussions
- Assignments

Who should attend

- ⊕ Manufacturing/Engineering Managers
- ⊕ Engineers/Technologists/Scientists in Manufacturing Organizations
- ⊕ Experienced professionals who want to review for better understanding of the cost improvement methodology
- ⊕ Finance Officers and Decision Makers.

Course Schedule

1st day

Session I (morning) – Lecture (at Good Hope Hotel)

- Overview the current costing and potential benefit of ABC system. Critical reasons and justification for adopting ABC strategy.
- Planning for ABC cost improvement using DMAIIC approach. Design and data collection base for ABC system.
- Dynamic presentation to gain ABC support.

Session II (afternoon) – Workshop (at Computer Room, FME, UTM)

- Identification and categorizing cost pools and cost drivers. Conducting data collection of an ABC project. ABC calculations and analysis.

2nd Day

Session III (morning) – Lecture (at Good Hope Hotel)

- Evaluating Value-Added activities and Non Value-Added (waste) activities.
- Improving value added activities and eliminating wastes based on lean manufacturing strategy.

Session IV (afternoon) – Workshop (at Computer Room, FME, UTM)

- Effective presentation to gain approval for cost improvement proposal.
- Evaluating improvements and reporting performance of the ABC project.
- Using continuous cost improvement for competing in time-based manufacturing.
- Assignments (optional).

APPENDIX A1 (continue)

ABC training brochure 11th November 2010

About The Trainer

WAN HARUN WAN HAMID



Engr. Wan Harun Wan Hamid, CQE graduated in Mechanical Engineering from Ohio University, U.S.A. and obtained his MBA (Finance) from University of Hull, U.K. He is a Certified Quality Engineer from American Society for Quality and a Certified Six-Sigma Green Belt from Institute of Industrial Engineers. Wan Harun is currently a lecturer in the Department of Manufacturing and Industrial Engineering, Faculty of Mechanical Engineering, UTM Johor Bahru. He was the one who pioneered the Activity Based Costing method into a Mechanical Engineering undergraduate course and then into Industrial Engineering graduate programme. He has wide experience in teaching and research related to Activity Based Costing and manufacturing cost improvement. He is the co-author of the book *Ekonomi Kejuruteraan dan Perakaunan Untuk Jurutera (2009)*, editor and author for journals in the areas of cost, productivity and quality improvements. He is also members for various international professional bodies such as a member of American Society for Quality and a senior member of the Institute of Industrial Engineers, U.S.A., a fellow of the Institute of Professional Financial Managers, FPFM and a fellow of the Institute of Manufacturing, FIManf, United Kingdom.

[ACTIVITY BASED COSTING FOR MANUFACTURING COST IMPROVEMENT, 10-11 November, 2010]

Designed for Engineers/Technologists/Scientists in Manufacturing Industries:

Targeted companies :

Automotive Part Manufacturers, Electrical and Electronic Component Manufacturers, Assemblers, Steel Fabricators, etc.

Normal Course Value	1 person	2 persons
	RM980	RM1800

(Course value is inclusive of lunch, refreshments and course materials)

Notes

Please kindly complete and return the reply form to:

REGISTER AS A FULLY SPONSORED PARTICIPANT BY THE ORGANISER and PAY RM0 COURSE FEE (FREE)

(only for limited number of participants based on First-Come-First-Serve)

and opportunity to participate in Transfer of Training Research, sponsored by Schools of Graduate Studies, UTM.

Note

a) The organiser has the right to make any amendments that they deem to be in the best interest of the course and to cancel the course if insufficient registrations are received a week before course commencement date.

b) CERTIFICATE OF ATTENDANCE will be awarded at the end of the course.

FREE in-house training is also welcome (this offer is valid only for limited period between November to December, 2010). Contact Wan Harun Wan Hamid at 012 7079444/07 5534553 or e-mail to wanharun@fkm.utm.my for further details.

REPLY FORM

(Please tick the appropriate box)

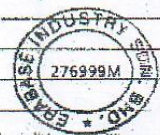
ACTIVITY BASED COSTING FOR MANUFACTURING COST IMPROVEMENT, 10 NOVEMBER TO 11 NOVEMBER 2010.

I would like to register for the following participants for FREE.

Name 1 Suhaimi Ismail
 Job Title Production Supervisor
 Name 2 Michael Chen Chea Jeng
 Job Title Engineering

COMPANY INFORMATION

Company Enterprise Industry Sdn Bhd
 Address NO-23 Jalan Murni 4
Tmn Perindustrian Cameron
 Town 81500 Ulu Jindu
 State Johor
 Tel 07-8616039
 Fax 07-8615039



AUTHORISED Signatory (*This registration is valid only with signature from an authorised officer)

Name [Signature]
 Job Title Chong Joo Aui
 Tel 07-8616039 Fax 07-8615039
 Email ychong76@yahoo.com

obrosh@tm.net.my

INQUIRIES

Department of Manufacturing and Industrial Engineering, Faculty of Mechanical Engineering,

UNIVERSITI TEKNOLOGI MALAYSIA

81310 UTM Johor Bahru, Skudai, Johor

Tel : 07-5534553 Fax : 07-5588169/07-5547384

Attn: Mr. Wan Harun Wan Hamid E-mail: wanharun@fkm.utm.my

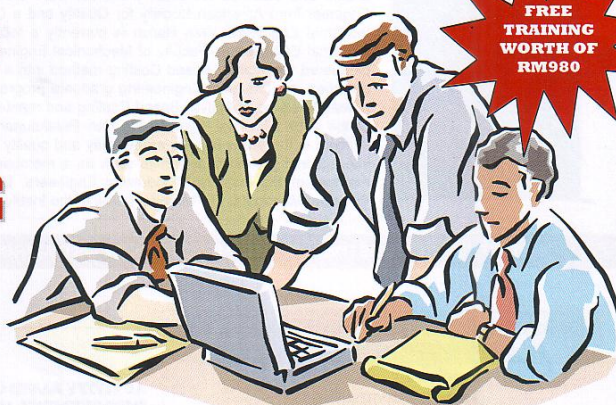
APPENDIX A2

ABC training brochure 15th December 2010

A2

Using the Latest Approach of Transfer of Training in Improving Business Performance

ACTIVITY BASED COSTING FOR MANUFACTURING COST IMPROVEMENT



**SCHOOL OF
GRADUATE
STUDIES**
Engineering Education
Research

**FACULTY OF
MECHANICAL
ENGINEERING**
Department of Manufacturing
and Industrial Engineering

15- 16 December, 2010
**Sunway Hotel, Seberang Jaya,
Penang**

Introduction

This 2-day course is designed to equip participants to acquire Activity Based Costing concepts, principles and methods for manufacturing cost improvements. It clarifies problems with traditional costing; justification and reasons for adopting ABC strategy; drives commitment to implement ABC solutions and to secure ABC support from management. Participants will be trained to design and develop ABC system, prepare ABC data collection base, identify and categorize cost pools and cost drivers for ABC calculations. Most importantly, the course will teach participants in using Value-Added drivers toolkit to identify and classify Value-Added and Non-Value-Added activities to improve manufacturing costs. It also demonstrates steps to implement manufacturing cost improvements.

Finally, participants will be guided on know-how to develop action plan to implement improvement, prepare performance report, and recommendations to management for supporting continuous improvement strategy.

Course Methodology

- Lectures
- Workshop
- Discussions
- Assignments

Who should attend

- + Manufacturing/Engineering Managers
- + Engineers/Technologists/Scientists in Manufacturing Organizations
- + Experienced professionals who want to review for better understanding of the cost improvement methodology
- + Finance Officers and Decision Makers.

Course Schedule

1st day

Session I (morning) – Lecture

- Overview the current costing and potential benefit of ABC system. Critical reasons and justification for adopting ABC strategy.
- Planning for ABC cost improvement using DMA/IC approach. Design and data collection base for ABC system.
- Dynamic presentation to gain ABC support.

Session II (afternoon) – Workshop

- Identification and categorizing cost pools and cost drivers. Conducting data collection of an ABC project. ABC calculations and analysis.

2nd Day

Session III (morning) – Lecture

- Evaluating Value-Added activities and Non-Value-Added (waste) activities.
- Improving value added activities and eliminating wastes based on lean manufacturing strategy.

Session IV (afternoon) – Workshop

- Effective presentation to gain approval for cost improvement proposal.
- Evaluating improvements and reporting performance of the ABC project.
- Using continuous cost improvement for competing in time-based manufacturing.
- Assignments (optional).

APPENDIX A3

ABC training brochure 8th June 2011

A3

Using the Latest Approach of Transfer of Training in Improving Business Performance

**MANUFACTURING
COST IMPROVEMENT
USING ACTIVITY
BASED COSTING
APPROACH**



**SCHOOL OF
GRADUATE
STUDIES**
Engineering Education
Research

**FACULTY OF
MECHANICAL
ENGINEERING**
Department of Manufacturing
and Industrial Engineering

8 June, 2011 (Wednesday)
9.00 am to 5.00 pm
UTM Skudai, Johor Bahru

Introduction

This 1-day course is designed to equip participants to acquire Activity Based Costing concepts, principles and methods for manufacturing cost improvements. It clarifies problems with traditional costing; justification and reasons for adopting ABC strategy; drives commitment to implement ABC solutions and to secure ABC support from management. Participants will be trained to design and develop ABC system, prepare ABC data collection base, identify and categorize cost pools and cost drivers for ABC calculations. Most importantly, the course will teach participants in using Value-Added drivers toolkit to identify and classify Value-Added and Non-Value-Added activities to improve manufacturing costs. It also demonstrates steps to acquire management support to implement manufacturing cost improvements.

Finally, participants will be guided on know-how to develop action plan to implement improvement, prepare performance report, and recommendations to management for supporting continuous improvement strategy.

Course Methodology

- Lectures
- Workshop
- Discussions
- Case studies

Who should attend

- ✦ Manufacturing/Engineering Managers
- ✦ Engineers/Technologists/Scientists in Manufacturing Organizations
- ✦ Experienced professionals who want to review for better understanding of the cost improvement methodology
- ✦ Production specialists and Decision Makers.

Course Schedule

- Overview the current costing and potential benefit of ABC system. Critical reasons and justification for adopting ABC strategy.
- Planning for manufacturing cost improvement using ABC approach. Employing Define, Measure, Analyze, Implement, Improve and Control strategy.
- Identification and categorizing cost pools and cost drivers. Conducting data collection of an ABC project. ABC calculations and analysis.
- Evaluating Value-Added activities and Non Value-Added (waste) activities.
- Improving value added activities and eliminating wastes based on *lean manufacturing* strategy.
- Evaluating improvements and reporting performance of the ABC project.
- Case studies related to participant's own job.

APPENDIX A4

ABC training brochure 29th June 2011

A4

Using the Latest Approach of Transfer of Training in Improving Business Performance

**MANUFACTURING
COST IMPROVEMENT
USING ACTIVITY
BASED COSTING
APPROACH**



Cost Control



**SCHOOL OF
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STUDIES**
Engineering Education
Research

**FACULTY OF
MECHANICAL
ENGINEERING**
Department of Manufacturing
and Industrial Engineering

29 June, 2011 (Wednesday)
9.00 am to 5.00 pm
UTM Skudai, Johor Bahru

Introduction

This 1-day course is designed to equip participants to acquire Activity Based Costing concepts, principles and methods for manufacturing cost improvements. It clarifies problems with traditional costing; justification and reasons for adopting ABC strategy; drives commitment to implement ABC solutions and to secure ABC support from management. Participants will be trained to design and develop ABC system, prepare ABC data collection base, identify and categorize cost pools and cost drivers for ABC calculations. Most importantly, the course will teach participants in using Value-Added drivers toolkit to identify and classify Value-Added and Non-Value-Added activities to improve manufacturing costs. It also demonstrates steps to acquire management support to implement manufacturing cost improvements.

Finally, participants will be guided on know-how to develop action plan to implement improvement, prepare performance report, and recommendations to management for supporting continuous improvement strategy.

Course Methodology

- Lectures
- Workshop
- Discussions
- Case studies

Who should attend

- ✦ Manufacturing/Engineering Managers
- ✦ Engineers/Technologists/Scientists in Manufacturing Organizations
- ✦ Experienced professionals who want to review for better understanding of the cost improvement methodology
- ✦ Production specialists and Decision Makers.

Course Schedule

- Overview the current costing and potential benefit of ABC system. Critical reasons and justification for adopting ABC strategy.
- Planning for manufacturing cost improvement using ABC approach. Employing Define, Measure, Analyze, Implement, Improve and Control strategy.
- Identification and categorizing cost pools and cost drivers. Conducting data collection of an ABC project. ABC calculations and analysis.
- Evaluating Value-Added activities and Non Value-Added (waste) activities.
- Improving value added activities and eliminating wastes based on *lean manufacturing* strategy.
- Evaluating improvements and reporting performance of the ABC project.
- Case studies related to participant's own job.

APPENDIX A5

ABC training brochure 16th July 2011

A5

Using the Latest Approach of Transfer of Training in Improving Business Performance

**MANUFACTURING
COST IMPROVEMENT
USING ACTIVITY
BASED COSTING
APPROACH**



**SCHOOL OF
GRADUATE
STUDIES**
Engineering Education
Research

**FACULTY OF
MECHANICAL
ENGINEERING**
Department of Manufacturing
and Industrial Engineering

16 July, 2011 (Sunday)
9.00 am to 5.00 pm
**UTM International Campus,
Kuala Lumpur**

Introduction

This 1-day course is designed to equip participants to acquire Activity Based Costing concepts, principles and methods for manufacturing cost improvements. It clarifies manufacturing cost problems with traditional costing; justification and reasons for adopting ABC strategy; drives commitment to implement ABC solutions and to secure ABC support from management. Participants will be trained to design and develop ABC system, prepare ABC data collection base, identify and categorize cost pools and cost drivers for ABC calculations. Most importantly, the course will teach participants in using Value-Added drivers toolkit to identify and classify Value-Added and Non-Value-Added activities to improve manufacturing costs. It also demonstrates steps to acquire management support to implement manufacturing cost improvements.

Finally, participants will be guided on know-how to develop action plan to implement improvement, prepare performance report, and recommendations to management for supporting continuous improvement strategy.

Course Methodology

- Lectures
- Workshop
- Discussions
- Case studies

Who should attend

- ✦ Manufacturing/Engineering Managers
- ✦ Engineers/Technologists/Scientists in Manufacturing Organizations
- ✦ Experienced professionals who want to review for better understanding of the cost improvement methodology
- ✦ Production specialists and Decision Makers.

Course Schedule

- Overview the current costing and potential benefit of ABC system. Critical reasons and justification for adopting ABC strategy.
- Planning for manufacturing cost improvement using ABC approach. Employing Define, Measure, Analyze, Implement, Improve and Control strategy.
- Identification and categorizing cost pools and cost drivers. Conducting data collection of an ABC project. ABC calculations and analysis.
- Evaluating Value-Added activities and Non Value-Added (waste) activities.
- Improving value added activities and eliminating wastes based on *lean manufacturing* strategy.
- Evaluating improvements and reporting performance of the ABC project.
- Case studies related to participant's own job.

APPENDIX A6

ABC training brochure 28th July 2011

A 6

Using the Latest Approach of Transfer of Training in Improving Business Performance

**MANUFACTURING
COST IMPROVEMENT
USING ACTIVITY
BASED COSTING
APPROACH**



**Cost
Control**



**SCHOOL OF
GRADUATE
STUDIES**
Engineering Education
Research

**FACULTY OF
MECHANICAL
ENGINEERING**
Department of Manufacturing
and Industrial Engineering

**28 July, 2011 (Thursday)
9.00 am to 5.00 pm
UTM Alumni House,
UTM Skudai, Johor Bahru**

Introduction

This 1-day course is designed to equip participants to acquire Activity Based Costing concepts, principles and methods for manufacturing cost improvements. It clarifies problems with traditional costing; justification and reasons for adopting ABC strategy; drives commitment to implement ABC solutions and to secure ABC support from management. Participants will be trained to design and develop ABC system, prepare ABC data collection base, identify and categorize cost pools and cost drivers for ABC calculations. Most importantly, the course will teach participants in using Value-Added drivers toolkit to identify and classify Value-Added and Non-Value-Added activities to improve manufacturing costs. It also demonstrates steps to acquire management support to implement manufacturing cost improvements.

Finally, participants will be guided on know-how to develop action plan to implement improvement, prepare performance report, and recommendations to management for supporting continuous improvement strategy.

Course Methodology

- Lectures
- Workshop
- Discussions
- Case studies

Who should attend

- ⊕ Manufacturing/Engineering Managers
- ⊕ Engineers/Technologists/Scientists in Manufacturing Organizations
- ⊕ Experienced professionals who want to review for better understanding of the cost improvement methodology
- ⊕ Production specialists and Decision Makers.

Course Schedule

- Overview the current costing and potential benefit of ABC system. Critical reasons and justification for adopting ABC strategy.
- Planning for manufacturing cost improvement using ABC approach. Employing Define, Measure, Analyze, Implement, Improve and Control strategy.
- Identification and categorizing cost pools and cost drivers. Conducting data collection of an ABC project. ABC calculations and analysis.
- Evaluating Value-Added activities and Non Value-Added (waste) activities.
- Improving value added activities and eliminating wastes based on *lean manufacturing* strategy.
- Evaluating improvements and reporting performance of the ABC project.
- Case studies related to participant's own job.

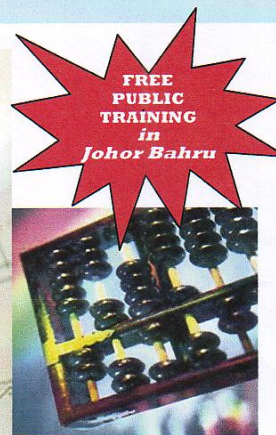
APPENDIX A7

ABC training brochure 8th September 2011

A7

Using the Latest Approach of Transfer of Training in Improving Business Performance

MANUFACTURING COST IMPROVEMENT USING ACTIVITY BASED COSTING APPROACH



**FREE
PUBLIC
TRAINING
in
Johor Bahru**



**SCHOOL OF
GRADUATE
STUDIES**
Engineering Education
Research

**FACULTY OF
MECHANICAL
ENGINEERING**
Department of Manufacturing
and Industrial Engineering

8 September, 2011 (Thursday)
9.00 am to 5.00 pm
Bandar Sri Alam, Johor Bahru

Introduction

This 1-day course is designed to equip participants to acquire Activity Based Costing concepts, principles and methods for manufacturing cost improvements. It clarifies problems with traditional costing; justification and reasons for adopting ABC strategy; drives commitment to implement ABC solutions and to secure ABC support from management. Participants will be trained to design and develop ABC system, prepare ABC data collection base, identify and categorize cost pools and cost drivers for ABC calculations. Most importantly, the course will teach participants in using Value-Added drivers toolkit to identify and classify Value-Added and Non-Value-Added activities to improve manufacturing costs. It also demonstrates steps to acquire management support to implement manufacturing cost improvements.

Finally, participants will be guided on know-how to develop action plan to implement improvement, prepare performance report, and recommendations to management for supporting continuous improvement strategy.

Course Methodology

- Lectures
- Workshop
- Discussions
- Case studies

Who should attend

- ⊕ Manufacturing/Engineering Managers
- ⊕ Engineers/Technologists/Scientists in Manufacturing Organizations
- ⊕ Experienced professionals who want to review for better understanding of the cost improvement methodology
- ⊕ Production specialists and Decision Makers.

Course Schedule

- Overview the current costing and potential benefit of ABC system. Critical reasons and justification for adopting ABC strategy.
- Planning for manufacturing cost improvement using ABC approach. Employing Define, Measure, Analyze, Implement, Improve and Control strategy.
- Identification and categorizing cost pools and cost drivers. Conducting data collection of an ABC project. ABC calculations and analysis.
- Evaluating Value-Added activities and Non Value-Added (waste) activities.
- Improving value added activities and eliminating wastes based on *lean manufacturing* strategy.
- Evaluating improvements and reporting performance of the ABC project.
- Case studies related to participant's own job.

APPENDIX B
Activity-Based Costing training contents

Training Contents	Objectives
<p>Define (ABC method and ABC applications)</p> <ol style="list-style-type: none"> 1. <i>Stating</i> personal significant on ABC (i.e. giving an understanding of why ABC is significant to the trainee e.g., why use of ABC in cost improvement is important) 2. <i>Describing</i> ABC (i.e. Giving a description of ABC by naming key feature of ABC e.g., naming proper terms in ABC and detailing these feature and comparing ABC steps with other cost improvement method) 3. <i>Exemplifying</i> ABC usage(i.e. Providing specific examples to illustrate general ABC application in manufacturing cost improvement) 4. <i>Comparing/contrasting</i> ABC features (i.e. comparing ABC with other improvement methods, advantages/hurdles, obtaining management involvement for maximum effect of ABC implementation). 5. <i>Defining</i> ABC purpose (i.e. determine the specific target/objective/scope of ABC implementation in manufacturing process). 	<p><i>Describing</i> manufacturing scenario and opportunity for having better costing method and potential benefit of ABC system</p> <p><i>Describing</i> reasons for ABC adoption in manufacturing (with highlighting problems associated with traditional costing and critical reasons on why ABC should be used as todays manufacturing strategy).</p> <p><i>Describing</i> usage of ABC. <i>Describing success</i> stories of ABC.</p> <p>Describing ABC objectives and implementation issues.</p> <p>(Related to training outcomes 1 and 2)</p>
<p>Measure (Production data for ABC analysis)</p> <ol style="list-style-type: none"> 6. <i>Constructing</i> ABC baseline (i.e. drawing Value Stream Mapping, process flow charts and diagrams to identify process under investigation). 7. <i>Classifying</i> ABC data(i.e. grouping related ABC data into one category or/and dividing into sub-categories e.g., cost data template – resource cost, cost pools, activity drivers and cost objects) 8. <i>Calculating</i> ABC (i.e using data from categories to calculate/determine cost pools, cost driver rates and cost objects). 9. <i>Organising</i> ABC results (i.e. prioritise results using Paretos, charts, ratios, tables e.g. resource costs, cost pools, cost drivers, value added/non value added analysis, costs, value-cost ratios. 	<p>To identify data levels –resource cost - cost pools - cost unit)</p> <p>To identify typical names of resource costs, cost pools, cost drivers, cost objects in manufacturing (e.g. production, quality inspection, storage, delivery, ect.)</p> <p>To classify data type of resource costs, cost pools, cost drivers, cost objects in manufacturing for ABC analysis.</p> <p>To calculate activity costs, object unit.</p> <p>To demonstrate result for classifying priorities.</p> <p>To determine value/cost ratio.</p> <p>To determine other waste costs based on lean manufacturing.</p> <p>(Related to training outcome 3)</p>
<p>Analyse (Production process for ABC improvements)</p> <ol style="list-style-type: none"> 10. <i>Analysing</i> (i.e searching root courses of major/critical problems (i.e using root course analysis, FMEA tables, QFD, 5 whys analysis, FTAs, etc.) 11. <i>Selecting</i> (i.e. identifying/choosing the key ingredients for successfully cost improvement initiatives or customising strategy/ actions to eliminate major NVA/waste activities or/and to enhance significant value added activities. 	<p><i>To search</i> root cause on Non Value-Added (wastes) activities.</p> <p>To select strategy for cost improvement.</p> <p>(Related to training outcome 4)</p>
<p>Improve/Implement (Production system)</p> <ol style="list-style-type: none"> 12. <i>Justifying</i> improvement (i.e. estimating/obtaining potential saving or improvement in value) to justify cost improvement proposal. 13. <i>Designing</i> improvement (i.e. applying lean tools/methods/strategy to design the improvement standards/devices/system e.g. 5S, JIT/ kanban, line balancing, re-layout, jigs design, poke yoke, etc.). 	<p>To estimate saving/justify waste reduction/cost improvement for project for management approval.</p> <p>To design solution for cost reduction for NVA activities and enhancement for Value-added activities.</p> <p>(Related to training outcome 5)</p>

APPENDIX C1

List of participants registered for ABC training

No	Name	Company	Training date
1	Mohd Azman bin Ali	Dynac Sdn Bhd	10/11/2010
2	Shikh Ayub Abd Rahim	Dynac Sdn Bhd	10/11/2010
3	Rahmat Tasim	Dynac Sdn Bhd	10/11/2010
4	Abu Hanzalah bin Omar	Innovalue Precision Sdn Bhd	10/11/2010*
5	Chin Wei Chung	Innovalue Precision Sdn Bhd	10/11/2010*
6	Masoud Khakdam	FKM, UM	10/11/2010
7	Suhaimi Ismail	Erabase Industry Sdn Bhd	10/11/2010
8	Micheal Chen Choo Yeing	Erabase Industry Sdn Bhd	10/11/2010
9	Jason Chong	Gan Seng Printing (M) S/B	10/11/2010
10	Raymond Tan	Ayambest (M) Sdn Bhd	10/11/2010*
11	Edly Ramly	EFR Quality Services	10/11/2010
12	Mohd Razi Ibrahim	Rashada Solution Sdn Bhd	10/11/2010
13	Chong Yea Hui	Technic Precision Eng S/B	10/11/2010
14	Koh Kheng Min	Paxprof Corporate Service SB	8/6/2011
15	Laren Lim	Mynd Trading Sdn Bhd	8/6/2011
16	Lau Sen Ming	Neville Clark Sdn Bhd	8/6/2011
17	Lee Gia Hoong	G Twin Food Sdn Bhd	8/6/2011
18	Norzaimiee bte Yahya	Dynac Engineering Sdn Bhd	8/6/2011
19	Keane lee Kong Yong	Pro Uniform Sdn Bhd	8/6/2011
20	Saad Talib	Bio Prospect Sdn Bhd	8/6/2011
21	Suzaili Hj Masrop	Profazas Solutions	8/6/2011
22	Shahidin Mohd Noor	Toko Tenaga keluarga S/B	8/6/2011
23	Md Azwan Azit Kesumar	Johor Bahru	26/6/11
24	Salwa binti Mahmood	Green Manufacturing Research	26/6/11
25	Ahmad Syafiq A L Hakim	Johor Bahru	26/6/11
26	Kong Kok Keong	Enhart Glass Sdn Bhd	26/6/11
27	Ahmad Syukri Kamarudin	SKP Resources Sdn Bhd	26/6/11
28	Hafizan Ishak	MCE Technology Sdn Bhd	26/6/11
29	Mohd Faiz Ahmad	Flextronic Sdn Bhd	26/6/11
30	Muhd Husaini Merican	Flextronic Sdn Bhd	26/6/11
31	Izwan bin Said	Panasonic System Network	26/6/11
32	Arizuan Mohd Zameri	Flextronic Sdn Bhd	26/6/11
33	Muhd Fadhli Shah Rahim	Kerry Ingredients Sdn Bhd	26/6/11
34	Zainuddin Ibrahim	Device Dynamic Asia Sdn Bhd	16/7/11
35	Mukram Mohd Taib	Asia Pacific Chem Sdn Bhd	16/7/11
36	Chong Chee Kong	Weltek Mech & Elect Sdn Bhd	29/7/11
37	Heng Yong Thong	Weltek Mech & Elect Sdn Bhd	29/7/11*
38	Raymond Tan	Ayambest (M) Sdn Bhd	29/7/11
39	Syed Zulfakar Syukur	Pasir Gudang	29/7/11
40	Chong Lim	Lim Up Sdn Bhd	29/7/11*

APPENDIX C1 (continue)**List of participants registered for ABC training (continue)**

No	Name	Company	Training date
41	Abu Hanzalah Omar	Innovalue Precision Sdn Bhd	29/7/11*
42	Larren Lim	Mynd Trading Sdn Bhd	29/7/11*
43	Mohd Noor Fadzly Johar	Computational Fluid Mech	29/7/11
44	Mohan Singh	Local Basic Sdn Bhd	29/7/11
45	Harold Magcawas	Local Basic Sdn Bhd	29/7/11
46	Owen Tan	Owen Marketing	28/7/11
47	Chai Min Lee	Wonderful lighting Sdn Bhd	28/7/11
48	Tyu Geng Long	FSO Technologies Solutions	28/7/11
49	Chai Chong Heng	1 Dimension System Sdn Bhd	28/7/11
50	Lim Han San	Central Vista (M) Sdn Bhd	28/7/11*
51	Lokman Sanudin	Central Vista (M) Sdn Bhd	28/7/11*
52	Sumith A/P Paramasivan	Central Vista (M) Sdn Bhd	28/7/11*
53	Stanley Ong	Mechanical Engineer	28/7/11*
54	Jason Lee	Perfect Mix Portfolio Sdn Bhd	28/7/11
55	Michael Lee	Perfect Mix Portfolio Sdn Bhd	28/7/11
56	Md Fadil Ahmad	System Analyse	28/7/11
57	Tin Chai Heng	Central Vista (M) Sdn Bhd	8/9/11
58	Sumith A/P Paramasivam	Central Vista (M) Sdn Bhd	8/9/11
59	Fadzlin binti Sabtu	Central Vista (M) Sdn Bhd	8/9/11
60	Grace Tan yeng Cheng	Central Vista (M) Sdn Bhd	8/9/11
61	Lokman Sanudin	Central Vista (M) Sdn Bhd	8/9/11
62	Gary Lai	Central Vista (M) Sdn Bhd	8/9/11
63	Tay Wong	Central Vista (M) Sdn Bhd	8/9/11
64	Vincent Lem	Central Vista (M) Sdn Bhd	8/9/11
65	Lam Mui Loon	Central Vista (M) Sdn Bhd	8/9/11
66	Goo Yok Peng	Central Vista (M) Sdn Bhd	8/9/11
67	Muhd Fadhli Shah Rahim	Kerry Ingradient	22/1/12
68	Izwan Said	Panasonic System Network	22/1/12
69	Muhd Syafiq Samion	Safety Officer	22/1/12
70	Mohd Soffian Osman	Rafflesia Services Sdn Bhd	22/1/12
71	Lailatulfitri binti Masud	HT Presswork sdn Bhd	22/1/12
72	Mohd Noor Fadzly Johar	Computational Fluid Mech	22/1/12

* Absent from training

APPENDIX C2

The background of participants.

No	Participant	Education background				Work background						
		Program		level		Job type		Work position		Years working		
		Engineering	Other related field	Bachelor	Diploma/ certificate	Design/ Planning/ Management	Operation/ Engineering	Manager	Executive	2 years less	2-5 years	5 years more
1	Azman	1		1		1		1				1
2	Rahmat		1		1		1		1			1
3	Shikh	1		1			1	1				1
4	Jason Chong		1	1		1		1				1
5	Salwa	1		1		1			1	1		
6	Muhd Husaini	1		1		1			1	1		
7	Hafizan	1		1			1		1	1		
8	Muhd Fadhli	1		1			1		1	1		
9	Muhamad Faiz	1		1		1			1	1		
10	Izwan	1		1			1		1	1		
11	Zainuddin	1		1			1		1		1	
12	Mukram		1	1		1		1				1
13	CH Chai	1		1		1		1			1	
14	Jason Lee		1	1		1		1				1
15	Vincent		1	1		1		1				1
16	Lokman		1		1		1		1		1	
17	Muhd Fadzly	1		1		1			1	1		
18	Abdul Malik	1		1			1		1	1		
19	Mohd Arif	1		1			1		1	1		
20	Mohd Suffian		1	1		1		1			1	
	Count	13	7	18	2	11	9	8	12	9	4	7

APPENDIX D1

Sample pages of informal interview transcribes

Activity-Based Costing Training: Training Evaluation Questionnaires

Participants: SA

Date: 10/11/11

Please provide your feedback based on the following areas:

1. Explain if you previously have attended or having experiences related to this training content before attending this training?

I have previous training experience that was related to cost management and control. I have some knowledge about costing.

2. How do you feel about the facilities, supports and delivery of this training?

I feel satisfied with the facilities and equipment used in this training. I found hand-out materials provided also useful to help me learn better.

I am very much satisfied and like the way speaker presented the training. I think the delivery met all of the objectives of the training and effectively cover thoroughly the content with the time given.

3. What do you think about the training content that you learned during training?

I think most of the training content was logical organized and clearly explained. I believe I have increased my knowledge on ABC and cost improvement area from this training.

What is your opinion on the relevance and usefulness of this training to your job?

I think most of the knowledge given during the training is relevant to my job as operation manager in controlling engineering operations. I will try to use the concept and strategy of the training into my work.

4. Any other benefits you gain from this training?

I have benefit a lot from this training. My company appreciate this opportunity that university provide to SMI like us. We are looking to participate again next time. I believe the training will help me to improve my skill in performing my work in my company.

APPENDIX D1 (Continue)

Sample pages of informal interview's transcribes (continue)

5. Any other comment or suggestions.

I would like to thank the organiser for given this opportunity to my company to participate in this training. We see this training as example of smart partnership between industry and university, where industry should identify courses they need to master and university will provide the expertise. At the same time, we have started to give training to university students to get training experience from our company.

I hope to attend training like this in the future. I suggest training on lean sigma and quality function deployment.

Please provide your background information:

Name (*Name*): Shikh Ayub

Company (*Nama syarikat*): Dynac Sdn Bhd

Position (*Jawatan*): Operation manager

Years of experience (*Tahun pengalaman*): 18 years

Education (*Tahap Pendidikan*): Bachelor Degree (Mechanical Engineering).

I would like to thank you for your participation. I really appreciated you input.

Field Notes (researcher's observation):

Mr. Shikh is considered as a dynamic participant who has always shown interest in learning during this training. He frequently ask questions and give his opinion in responding to the speaker questions. A cheerful person, always want to share experiences and challenges of working as an operation manager. He believe in using ABC method to improve cost control. He has showed his appreciation on behalf of his company. A person with positive and optimistic in his job involvement and organisation commitment. Always willing to learn more if opportunity available.

APPENDIX D2

Sample pages of participant's learning sheet.

E 2

One Minute

Is there anything that interests you so far?

Replacement of old & inefficient hardware & assets

Is there anything that you would like to know more up to this point?

Return on investment of new hardware

Is there anything that may motivate you to apply Activity Based Costing Idea in your work so far?

Realization of ^{need} new investment on hardware
 Better quality & higher customer satisfaction as a result of new investment.

APPENDIX D3

Sample page of participant's reaction sheet

E)

(6)

Activity Based Costing Evaluation Sheet

Name:

Jason Lee

Please state (a), (b), (c), (d) or (e) beside the statement that you feel is true.

Choices: (a). Strongly agree (b). Agree (c). Neither (d). Disagree (e). Strongly Disagree

1. I had the knowledge and/or skills required to start this training. (b)
2. The facilities and equipment were favorable to learning. (b)
3. I was able to take this training when I needed it. (b)
4. I clearly understood the training objectives. (A)
5. The training met all the of its stated objectives. (b)
6. The way this training was delivered was an effective way for me to learn this subject matter. (b)
7. Participants materials (handouts, etc) were useful during the training. (b)
8. I had enough time to learn the subject matter covered in the training. (b)
9. The training content was logically organized. (b)
10. I had the opportunity to give input to the training design or content. (b)
11. Overall, I was satisfied with the speaker/trainer. (b)
12. My knowledge and/or skills increase as a result of this course. (A)
13. The knowledge and/or skills gained through this training are directly applicable to my job. (A)
14. This training has helped prepare me for other job opportunities within the company or industry. (A)
15. Overall I was satisfied with this course. (b)

APPENDIX D4 (continue)

Sample of interview transcribes and codes (page 2)

Interview transcribes	Codes
<p>[ABC method is very suitable to the work I do now.]⁸</p> <p>5. When you faced with challenges problems related to business aspects, describe how do you solve it creatively and quickly? Give some examples from your previous experience (if any).</p> <p>[To remain committed to the work, I should be a good engineer in controlling the present work process, manufacturing costs and able to do improvement to the existing work.]⁹ [The best example I need to do is to make an analysis of the existing supplier whether [it need change I need to find other alternatives]¹⁰ that can offer good price, better quality service and low MOQ.]¹¹ [For now I have made an improvement by changing vendor of the packing box to the new vendors after I made an analysis.]¹² Thus, [I have able to save the material costs by 50% and also with low MOQ.]¹³</p> <p>6. What do you do to ensure continuous learning about things related to the training that relevant to your job/career? What aspects you would like to improve further in your work or career?</p> <p>[I always make references via the internet to find the information I needed from time to time.]¹⁴</p> <p>7. Using a business perspective give examples from your past experience how did you define or solve problems that indirectly or directly related to this training. Any example related to the training?</p> <p>[To solve a problem related to quality, I would use the SPC, 8D report, Why-Why analysis, 4M + 1E methods and also some other methods.]¹⁵ [In terms of my business, I just refer to previous records and also base on my existing knowledge. For example, when I was asked to make UPH estimate for new products, I will refer to the existing product that is similar to the new products.]¹⁶ [If I needed to make estimation on the completion date of a project, I will make some analysis using the Excel and the process lay out.]¹⁷</p>	<p><i>8. Relating ABC to present work</i></p> <p><i>9. Identifying personal responsibility to cost improvement</i></p> <p><i>10. Having responsibility to analyse and decide</i></p> <p><i>11. Having authority to make change on suppliers</i></p> <p><i>12. Having experience to make changes</i></p> <p><i>13. Gaining cost saving as an outcome from an action</i></p> <p><i>14. Having continuous learning habit</i></p> <p><i>15. Describing approach in problem solving</i></p> <p><i>16. Describing approach to acquire knowledge</i></p> <p><i>17. Knowing place to locate new information to solve work problem</i></p>

APPENDIX D4 (continue)

Sample of interview transcribes and codes (page 3)

Interview transcribes	Codes
<p>8. What factors motivate you to overcome difficult tasks in your work? What job advancement important to you?</p> <p>[Among the factors that motivate me in solving the difficult tasks is the satisfaction I felt after I have successfully completed the work.]¹⁸ [The career progress that is significant to me is when we are able to perform tasks given to us well]¹⁹ and there was no complaint from our customer.</p> <p>9. Describe how your accomplishment in your previous tasks drives you further in initiating new tasks in your work that indirectly or directly related to this training?</p> <p>[When I was working in a composite yacht manufacturing company before this as a designer, I have done a many improvements in terms of production process output, effective working methods, good works processes and so on.]²⁰ [Now, I work in the semiconductor manufacturing company starting as a quality engineer and I have established a good quality system.]²¹ For example, from 2006 until 2010, the customer complaints to the company were reduced by 80%. [And now, in 2011 no customer complaint received since Aug 2010.]²²</p> <p>10. What characteristics (that you haven't mentioned) do you think necessary to help individual apply concepts or knowledge or skills learned during training to workplace?</p> <p>[Every person must have a desire to make changes to himself if he wanted to progress]²³ and [accept a change in the present or new job, because we cannot learn something new if we only do the same things every day without doing something new.]²⁴ [Do not consider any new assignment as a burden; rather see it as a challenge.]²⁵</p>	<p><i>18. Feeling satisfied on work accomplished</i></p> <p><i>19. Defining career success as accomplishment of task</i></p> <p><i>20. Describing previous cost improvement experiences</i></p> <p><i>21. Making changes to quality system</i></p> <p><i>22. Having seen the satisfying result of improvement</i></p> <p><i>23. Looking forward to positive personal change</i></p> <p><i>24. Having to accept challenging work to gain expertise</i></p> <p><i>25. Having a positive work paradigm</i></p>

APPENDIX D5

Sample pages of participant's response via website

You've just received a new submission to your FEEDBACK SURVEY ABC.

2. Submitted Information:

Date of training (choose one)

16 July 2011 (UTM KL)

1. Apakah concept or knowledge or skills essential that you get from this training and how you do that can be applied at work?

Knowledge that I learned from this exercise is an effective method in controlling the costs of an organization. However, I have not been able to practice again my workplace.

2. Is the training easy to adopt and which is difficult to practice? Is the concept or knowledge or skill that you can use in your work? Give a reason.

I think this ABC method is easy to practice when you get a continuous guidance from people who are more experienced, but it will be difficult, if not the support of every member.

3. What are your hopes and goals of this exercise? Describe the things you want to make use of indirect or direct what you have learned?

I hope I can master this ABC method with the best to be implemented in any place wherever I work. I want to control costs through this ABC.

4. Describe your work and the training which is suitable for use in your work?

I worked as a Manufacturing Engineer that requires me to monitor the following areas;

1. On time delivery
2. Controlling labor costs
3. Controlling the cost of materials
4. Making process improvement.

ABC method is suitable for the work I do now.

5. How can you be able to stay and committed to your work while trying to use the concept or knowledge or skills learned in this exercise to work? Give an example.

To remain committed to the work, I should be well in control of work processes, manufacturing costs and can make repairs to existing work.

The best example I need to do is make an analysis of the existing supplier, and if a change I need to find an alternative that can provide good price offer, a better quality service and low MOQ. For now I have to change that by changing the packing box to the vendor for a new vendor. By this I was able to save material costs by 50% and low MOQ.

6. What are you doing to continue to learn and get the latest information for the deeper concepts or knowledge or skills related or not with the training content?

I always make reference via the Internet to find any information I need.

7. From business prospective, how do you face or solve problems creatively and quickly? Give

APPENDIX D5 (continue)

examples from your past experiences that may be associated or not with this exercise.

To solve a problem related to quality, I will be using the SPC, 8D report, Why-Why analysis, 4M + 1E method and there are several other methods.

In terms of business, I only refer to the old records and existing knowledge. For example, if I should make an estimate UPH for new products, I will refer to existing products corresponding to the new product. If I needed to estimate completion date of a project, I will make some analysis using the Excel file and the lay out.

8. Explain the factors that motivate you in completing the task / work hard, especially in matters related to this training? What is career development important to you?

Among the factors that motivate me in solving the difficult work is the satisfaction that will I feel after I was able to complete the work. Significant progress in my career is when we can perform the task given to us with no complaint from our customers.

9. Explain what you accomplish what the past can motivate you to continue to adopt an indirect or direct any concept or knowledge or skills training to the workplace?

When I worked in manufacturing before the composite screen as a design engineer, I have done a lot of process improvement in terms of production output, effective working methods, the good work and others.

Now I'm in semiconductor manufacturing company, began as a quality engineer I have to create a good quality system, which from 2006 until 2010 customer complaint KETAHUN can be reduced by 80%. And in 2011, no customer complaint received since May 2010.

10. What personal characteristics or skills (that have not yet you say) you think should have a man so that he can implement what is learned in training to work?

Each person must have the desire to make a change on itself if you wish for progress as well accept the change in duties or a new job because we cannot learn something new if we are just doing the same job every day without doing something new. Do not go assuming each new assignment as a burden instead treat it as a challenge.

Choose your posts

Engineers (Engineers)

Select the year you experience

more than 10 years

Choose your subject background

Degree

Select your area of specialization studies

Engineering / science (engineering / science)

Choose your type of business organization

Manufacturing (manufacturing)

APPENDIX D6

Sample pages of observation report

Participant: Azman Observer and date: Wan Harun 11/11/10

Observation for learning during training.

1 Personality (*Extrovert, introvert, pleasant, cheerful, etc.*). *Explain*

Positive: Showed positive body language when communicate.

Pleasant: He was a pleasant person and showed cheerful personality.

2 Job and work commitment related (*Positive, excited, liking, delight, joy, committed, acceptance, relaxed, neutral, bored, dislike, sad, negative, bad, etc.*). *Explain.*

Committed to job: Connected self to work/talk positive about job.

Committed to organisation: Showed his appreciation to speaker on behalf of his company.

3 Reaction to learning (*Positive, excited, liking, delight, joy, acceptance, relaxed, neutral, bored, dislike, sad, negative, bad, etc.*). *Explain.*

Delight: Showed interest in learning by asking question frequently

Positive: Showed interest in learning by giving opinion from time to time

4 Attitude toward the training (*Positive, excited, liking, delight, joy, acceptance, relaxed, neutral, bored, dislike, sad, negative, bad, etc.*). *Explain.*

Acceptance: have identified area for ABC use/have identified the purpose to use ABC.

5 Able to define and/or describe ABC knowledge Yes/No
(*explain*)

Yes: Explain ABC with confidence and clear.

6 Skill gained: Demonstrated use and analysed ABC data

Yes/No (*explain*)

Yes: Performed calculation correctly

7 Skill gained: Demonstrated design and/or evaluated ABC application

Yes/No (*explain*)

No: Not observed

Notes: Confirmed and reflected to interview data.

APPENDIX D6 (continue)

Participant: Azman Observer, date: Wan Harun - 7/3/2011

Observation for Transfer of Training.

1 Type of industry (*Manufacturing, service, others*). *Explain.*

Manufacturing : making of cooling coils

2 Description of operation (*Make-to-order, mass production, others*). *Explain.*

Make-to-order: Design process: checking specification-
preparing drawing-checking- repairing-delivering.

3 Position and job type (*Supervisor, manager, others*). *Explain.*

Manager: Engineering manager, supervising and designing
product for fabrication.

4 Skill possess (*Novice, expert, others*) *Explain.*

Expert : Having high degree of confidence when explaining
about drawing the software.

5 Description workplace environment (*Job-shop, production
line, others*). *Explain.*

Job-shop: Close drawing studio with a few drawing staffs.

6 Face expression when explaining about performing work or job.

(*Positive, excited, liking, delight, joy, acceptance, relaxed, neutral, bored,
dislike, sad, negative, bad, etc.*). *Explain.*

Delight: Sharing many experiences of his works, problems and
challenges and how he solved these problems.

7 Face expression when responding to question on applying ABC.

(*Positive, excited, liking, delight, joy, acceptance, relaxed, neutral, bored,
dislike, sad, negative, bad, etc.*). *Explain.*

Acceptance: He has convinced on the use of ABC in his
company in production area to save production cost.

8 Aware and/or complied with ABC knowledge Yes/No (*explain*)

Yes: Have identified production area to use ABC.

9 Convinced and/or decided to apply ABC approach Yes/No (*explain*)

No: Not yet decided to implement due to work constrain.

10 Behaved or exhibited value of ABC philosophy Yes/No (*explain*)

No: Not yet implemented ABC in his section.

Notes: Identified suitable section in his companies (e.g. production) to
use ABC. Participant has shown some works on reducing drawing errors,
but not on ABC usage or any support document for cost saving available.
Confirmed and reflected interview data.

APPENDIX D7

Sample of document inspections types and assessments results

Participants: Jason CEvaluator: Wan Harun

Time	Document	Assessment	Status (<u>underline</u> or describe in words)		
During and immediately after training	Reaction sheet	Interest to learn	<u>High</u>	Medium	Low
		Affective reactions	<u>Strong</u>	Medium	Weak
		Utility reactions	<u>Strong</u>	Medium	Weak
		Coded contents	3 codes identified (affective reaction, utility reaction, job utility)		
	One minute paper (learning feedbacks)	Attitude toward learning	<u>Positive</u>	Neutral	Negative
		Trainee's aptitude	<u>High</u>	Low	Not available
	Case problems	Skill gained	<u>Correct</u>	<u>Completed</u>	<u>On time</u>
		Self efficacy	<u>High</u>	Low	Not available
		Codes	3 codes identified (understanding knowledge, having skill in estimating ROI, intention to use).		
	Field notes	Participant has indicated high motivation to learn, having high affective and utility reaction, positive attitude toward learning, having cognitive ability in understanding ABC contents – answered correctly and completely case problem and submitted on time. Showed confident to apply ABC in the workplace. Confirmed and reflected to interview data.			
Three months after training	Operation flow charts	Identified use of ABC	<u>Specific idea</u>	General idea	Not available
	Cost estimates	Analysis performed	<u>Factory wide</u>	Pilot case	Not available
	Work sheet/ instructions	Cost improvement done	<u>Factory wide</u>	Pilot case	Not available
	Financial statements etc.	Result obtained	<u>Significant</u>	Not significant	Not available
	Codes	<i>Company profile document</i>	(5 codes identified: <i>continuous learning culture; looking for continuous improvement; supporting staff on training; reducing waste for sustainability; improving customer relation</i>).		
	Field notes	Participant has clearly specified the use of ABC in the company; has calculated cost/ton of the ready-mixed product; did improvement on operation level. Analysis of the company's financial statement showed an increase in inventory turnover ratio, profitability ratio and return on asset ratio. Confirmed and reflected interview data.			

APPENDIX D8

List of data files analysed using Atlas.ti software.

No	Participant	Symbol	Type of data	File format
1	Azman	Azman (P1, 1)	Interview transcribes	Rich text
2	Rahmat	Rahmat (P2, 1)	Interview transcribes	Rich text
3	Shikh	Shikh (P3, 1)	Interview transcribes	Rich text
4	Jason Chong	Jason C (P4, 1)	Interview transcribes	Rich text
5	Salwa	Salwa (P5, 1)	Interview transcribes	Rich text
6	Muhd Husaini	Muhammad H (P6, 1)	Interview transcribes	Rich text
7	Hafizan	Hafizan (P7, 1)	Interview transcribes	Rich text
8	Muhammad Fadhli	Muhd Fadhli (P8, 1)	Interview transcribes	Rich text
9	Muhamad Faiz	Faiz (P9, 1)	Interview transcribes	Rich text
10	Izwan	Izwan (P10, 1)	Interview transcribes	Rich text
11	Zainuddin	Zainuddin (P11, 1)	Interview transcribes	Rich text
12	Mukram	Mukran (P12, 1)	Interview transcribes	Rich text
13	CH Chai	Chai (P13, 1)	Interview transcribes	Rich text
14	Jason Lee	Jason L (P14, 1)	Interview transcribes	Rich text
15	Vincent	Vincent (P15, 1)	Interview transcribes	Rich text
16	Lokman	Lokman (P16, 1)	Interview transcribes	Rich text
17	Muhammad Fadzly	Fadzly (P17, 1)	Interview transcribes	Rich text
18	Abdul Malik	Malik (P18, 1)	Interview transcribes	Rich text
19	Mohd Arif	Arif P19, 1)	Interview transcribes	Rich text
20	Mohd Suffian	Mohd S (P20, 1)	Interview transcribes	Rich text
21	Azman	Azman (P21, 1)	Reaction sheet	PDF
22	Rahmat	Rahmat (P22, 1)	Reaction sheet	PDF
23	Shikh	(P23, 1)	Reaction sheet	PDF
24	Jason Chong	Jason C (P24, 1)	Reaction sheet	PDF
25	Salwa	Salwa (P25, 1)	Reaction sheet	PDF
26	Muhd Husaini	Muhammad H (P26, 1)	Reaction sheet	PDF
27	Hafizan	Hafizan (P27, 1)	Reaction sheet	PDF
28	Muhammad Fadhli	Muhd Fadhli (P28, 1)	Reaction sheet	PDF
29	Muhamad Faiz	Faiz (P29, 1)	Reaction sheet	PDF
30	Izwan	Izwan (P30, 1)	Reaction sheet	PDF
31	Zainuddin	Zainuddin (P31, 1)	Reaction sheet	PDF
32	Mukram	Mukran (P32, 1)	Reaction sheet	PDF
33	CH Chai	Chai (P33, 1)	Reaction sheet	PDF
34	Jason Lee	Jason L (P34, 1)	Reaction sheet	PDF
35	Vincent	Vincent (P35, 1)	Reaction sheet	PDF
36	Lokman	Lokman (P36, 1)	Reaction sheet	PDF
37	Muhammad Fadzly	Fadzly (P37, 1)	Reaction sheet	PDF
38	Abdul Malik	Malik (P38, 1)	Reaction sheet	PDF
39	Mohd Arif	Arif P19, 1)	Reaction sheet	PDF
40	Mohd Suffian	Mohd S (P40, 1)	Reaction sheet	PDF

APPENDIX D8 (continue)

List of data files analysed using Atlas.ti software

No	Participant	Symbol	Type of data	File format
41	Jason Lee	Jason L (P41, 1)	Case study sheet	PDF
42	Jason Lee	Jason L (P42, 1)	Learning sheet No. 1	PDF
43	Vincent	Vincent (P43, 1)	Learning sheet No. 1	PDF
44	Vincent	Vincent (P44, 1)	Learning sheet No. 2	PDF
45	Vincent	Vincent (P45, 1)	Learning sheet No. 3	PDF
46	Lokman	Lokman (P46, 1)	Learning sheet No. 1	PDF
47	Muhamad Fadzly	Fadzly (P47, 1)	Learning sheet No. 1	PDF
48	Muhamad Fadzly	Fadzly (P48, 1)	Learning sheet No. 2	PDF
49	Muhamad Fadzly	Fadzly (P49, 1)	Case study sheet No. 1	PDF
50	Muhamad Fadzly	Fadzly (P50, 1)	Case study sheet No. 2	PDF
51	Abdul Malik	Malik (P51, 1)	Learning sheet No. 1	PDF
52	Abdul Malik	Malik (P52, 1)	Learning sheet No. 2	PDF
53	Abdul Malik	Malik (P53, 1)	Case study sheet No.1	PDF
54	Mohd Arif	Arif (P54, 1)	Learning sheet No. 1	PDF
55	Mohd Arif	Arif (P55, 1)	Learning sheet No. 2	PDF
56	Mohd Saffian	Saffian (P56, 1)	Learning sheet No. 1	PDF
57	Mohd Saffian	Saffian (P57, 1)	Case study sheet No. 1	PDF
58	Mohd Saffian	Saffian (P58, 1)	Case study sheet No. 2	PDF
59	Mohd Saffian	Saffian (P59, 1)	Case study sheet No. 3	PDF
60	Azman	Azman (P60, 2)	Interview transcribes	Rich text
61	Rahmat	Rahmat (P61, 2)	Interview transcribes	Rich text
62	CH Chai	Chai (P62, 2)	Interview transcribes	Rich text
63	Zainuddin	Zainuddin (P63, 2)	Interview transcribes	Rich text
64	Salwa	Salwa (P64, 2)	Interview transcribes	Rich text
65	Muhd Husaini	Muhammad H(P65, 2)	Interview transcribes	Rich text
66	Hafizan	Hafizan (P66, 2)	Interview transcribes	Rich text
67	Muhamad Fadhli	Fadhli (P67, 2)	Interview transcribes	Rich text
68	Muhamad Faiz	Faiz (P68, 2)	Interview transcribes	Rich text
69	Izwan	Izwan (P69, 2)	Interview transcribes	Rich text
70	Jason Chong	Jason C (P70, 2)	Interview transcribes	Rich text
71	Jason Lee	Jason L (P71, 2)	Interview transcribes	Rich text
72	Mukram	Mukram (P72, 2)	Interview transcribes	Rich text
73	Vincent	Vincent (P73, 2)	Interview transcribes	Rich text
74	Lokman	Lokman (P74, 2)	Interview transcribes	Rich text
75	Muhamad Fadzly	Fadzly (75, 2)	Feedbacks sheet	PDF
76	Abdul Malik	Malik (P76, 2)	Feedback sheet	PDF

APPENDIX E1

Sample pages of initial coding using free codes

Activity-Based Costing Training: Training Evaluation Participants: SA Date: 10/11/11 (Interview transcribes)	Free Codes
<p>Please provide your feedback based on the following areas:</p> <ol style="list-style-type: none"> 1. Explain if you previously have attended or having experiences related to this training content before attending this training? <u>[I have previous training experience that was related to cost management and control. I have some knowledge about costing.]</u>^{1]} 2. How do you feel about the facilities, supports and delivery of this training? <u>[I feel satisfied with the facilities and equipment used in this training. I found hand-out materials provided also useful to help me learn better.]</u>^{2]} <u>[I am very much satisfied and like the way speaker presented the training]</u>^{3]}<u>[I think the delivery met all of the objectives of the training and effectively cover thoroughly the content with the time given.]</u>^{4]} 3. What do you think about the training content that you learned during training? <u>[I think most of the training content was logical organized and clearly explained. I believe I have increased my knowledge on ABC and cost improvement area from this training]</u>^{5]} What is your opinion on the relevance and usefulness of this training to your job? <u>[I think most of the knowledge given during the training is relevant to my job as operation manager in controlling engineering operations.]</u>^{6]} <u>[I will try to use the concept and strategy of the training into my work.]</u>^{7]} 4. Any other benefits you gain from this training? <u>[I have benefit a lot from this training. My company appreciate this opportunity that university provide to SMI like us.]</u>^{8]} <u>[We are looking to participate again next time]</u>^{9]} <u>[I believe the training will help me to improve my skill in performing my work in my company]</u>^{10]}^{9]} 	<p>➤ Attended CPD previously^{1]} Memo: Assume this trainee has skill prior training</p> <p>➤ Expressing satisfaction with environment^{2]} ➤ Liking delivery method^{3]}</p> <p>➤ Understanding facts and procedues.^{4]}</p> <p>➤ Expressing confident apply training^{5]}</p> <p>➤ Relating ABC usage to job^{6]} ➤ Wanting to use knowledge/skill^{7]}</p> <p>➤ Thanking on company behalf^{8]} ➤ Wanting to advance knowledge^{9]} ➤ Expecting use to improve process^{10]}</p>

APPENDIX E1 (continue)

Activity-Based Costing Training: Training Evaluation Participants: SA Date: 10/11/11 (Interview transcribes - continue)	Free Codes
<p>5. <u>Any other comment or suggestions.</u></p> <p><u>[I would like to thank the organiser for given this opportunity to my company to participate in this training¹¹]. We see this training as example of smart partnership between industry and university, where industry should identify courses they need to master and university will provide the expertise. At the same time, [we have started to give training to university students to get training experience from our company.¹²] [I hope to attend training like this in the future. I suggest training on lean sigma and quality function deployment.¹³]</u></p> <p>Please provide your background information:</p> <p>Name (<i>Name</i>): Shikh Ayub Company (<i>Nama syarikat</i>): Dynac Sdn Bhd Position (<i>Jawatan</i>) : <u>Operation manager</u> Years of experience (<i>Tahun pengalaman</i>) : <u>18 years</u> Education (<i>Tahap Pendidikan</i>): <u>Bachelor Degree (Mechanical Engineering).</u>^{14.15.16}</p> <p>I would like to thank you for your participation. I really appreciated you input.</p> <p>Field Notes (researcher's observation):</p> <p><u>Mr. Shikh is consider as a dynamic participant who has always shown interest in learning during this training.</u>¹⁷ He frequently ask questions and give his opinion in responding to the speaker questions. A cheerful person, <u>[always want to share experiences and challenges of working as an operation manager.</u>¹⁸ [He believe in using ABC method to improve cost control¹⁹]. <u>[He has showed his appreciation on behalf of his company²⁰].</u> A person with positive and optimistic in his job and organisation commitment. <u>[Always willing to learn more if opportunity available.²¹]</u></p>	<ul style="list-style-type: none"> ➤ Thanking on company behalf¹¹ ➤ Offering company support¹² ➤ Looking to learn other topics¹³ ➤ Deciding outcomes possible¹⁴ ➤ Going through years of experiences¹⁵ ➤ Possessing engineering degree¹⁶ ➤ Wanting to advance present knowledge¹⁷ ➤ Feeling confidence prior training¹⁸ ➤ Expecting use to improve work¹⁹ ➤ Thanking on company behalf²⁰ ➤ Willing to continue learn²¹

APPENDIX E2

Sample pages of focus coding (page 1)

A_25Jun12_Final_Engaging in Transfer trajectory - ATLAS.ti

File Edit Documents Quotations Codes Memos Networks Views Tools Extras A-Docs Windows Help

P4: 4_Jason_C_L1.rtf (22) Codes Quotes 12:20 Bagi saya kita (sebab motivasi.. (13:26) Memos 1_0_Motivation to lear

01 **Activity-Based Costing Training: Training Evaluation Questionnaires**

02 *Soal Selidik Penilaian Latihan: Pengesanan Berasaskan Aktiviti.*

03

04 Please provide your feedback based on the following areas:

05 *Sila berikan maklum balas anda berdasarkan perkara-perkara berikut:*

06

07 1. Explain if you previously have attended or having experiences related to this training content before attending this training?

08 *Jelaskan sekiranya anda telah menghadiri atau mempunyai pengalaman yang berkaitan dengan kandungan latihan ini sebelum menghadiri latihan ini.*

09

10 My previous training experience was related to company accounting.

11

12 2. How do you feel about the facilities, supports and delivery of this training?

13 *Bagaimana pendapat anda mengenai kemudahan tempat, sokongan dan cara penyampaian latihan ini?*

14

15 The facilities and equipment is suitable to learning environment. I very much appreciate with materials given and really help me to learn better during the training.

16

The training met all of the objectives set. The training was delivered effectively and enough time given to cover the training. Overall, I fell satisfied and like the way speaker presented the training.

05_1b_having attended CPD

02_2a_Learning -DeclarativeKnowledge

05_1b_Attended related CPD previously

02_2a_ABC method may be look from accounting perspective - cost estima

02_1a_Feeling satisfy with environment

02_1a_affective Reaction to training

02_1a_Feeling training enlighten

02_1a_Feeling satisfy with delivery

02_1a_Feeling Training design satisfied

AFFECTIVE REACTION

understanding

02_1a_Very positive rea

Size: 100% Rich Text Default

Desktop 12:59 AM 22/11/2012

APPENDIX E2 (continue)
Sample pages of focus coding (page 2)

The screenshot displays a software interface for focus coding. The main window shows a document with text in English and Indonesian. The right sidebar displays a list of codes with checkboxes and colored markers. The bottom taskbar shows the Windows operating system with various application icons.

Document Text:

16 The training met all of the objectives set. The training was delivered effectively and enough time given
 to cover the training. Overall, I felt satisfied and like the way speaker presented the training.

17

18

19 3. What do you think about the training content that you learned during training?

20 *Apakah pendapat anda mengenai kandungan latihan yang anda pelajari semasa latihan?*

21 I like the logical way content is organized. I understood most of the training objectives. I believe I gain
 new knowledge on ABC from this training.

22

23 What is your opinion on the relevance and usefulness of this training to your job?

24 *Apakah pandangan anda mengenai kesesuaian dan kegunaan kandungan latihan dalam kerja
 anda?*

25 Some parts of the training knowledge from this training are related to my job and very useful to me as
 a manager.

26

27

28

29 4. Any other benefits you gain from this training?

30 *Adakah anda memperoleh sebarang manfaat lain yang anda telah perolehi daripada latihan ini?*

31 I have benefit a lot from this training. I also believe the training will help me to improve my cost

Code List (Right Sidebar):

- #02_1a_Feeling satisfy with delivery
- #12_1a_Feeling Training design satisfied
- # affective reaction
- # AFFECTIVE REACTION
- # LOC-position
- # undarsatndng
- # utility reaction
- #02_1b_Feeling relevant to apply
- #05_1d_feeling confident prior training
- #5_1d_Cognitive ability_Pre-Training Self Efficacy
- #2_1b_Relating ABC usage to job
- #5_1d_Believing own ability to learn
- #5_1d_Manager (Printing Factory) normally supervices engineers and
- #03_2_wanting to improve cost
- #3_2_Expecting use to

Taskbar (Bottom): Desktop, 1:00 AM, 22/11/2012

APPENDIX E3

Sorting categories and properties using code family (sample 1)

Code Family Manager [HU: A_25Jun12_Final_Engaging in Transfer trajectory]

Families Edit Miscellaneous View

Name	
01_0_Desiring to learn knowledge (9)	
01_0_Desiring to learn knowledge with help (2)	
01_0_Desiring to learn skill (3)	
01_0_Desiring to learn to master (6)	
01_1_Valuing learning benefit (5)	
01_a0_Factor influ All categ (10)	
01_a1_ENGAGING IN TRAINING TRANSFER PROGRESSION (29)	
01_a2_FACTORS INFLUENCING TRANSFER OF ABC TRAINING PROGRESSION (28)	
01_MTL (1)	
01_post T FL MTL (1)	
01_post T SE to MTT (1)	
02-2b_wanting to improve skill (3)	
02_1a_Feeling satisfy with content (4)	
02_1a_Feeling satisfy with delivery (3)	
02_1a_Feeling satisfy with environment (12)	
02_1a_Thanking organiser (2)	
02_1b_Feeling indirectly related to work (3)	
02_1b_Feeling relevant of content (10)	
02_1b_Feeling relevant to apply (14)	
02_1c_Believing ability to control cost (1)	
02_2a_Lacking understanding (3)	
02_2a_understanding facts (14)	

1_0_Desiring to learn knowledge (2-1) 1_0_Desiring to learn to master (1-1) 1_0_Motivation to learn (2-1) 1_0_MotivationToLearn [Wanting to acquire training contents] (0-14) 1_0_Wanting to advance knowledge (1-1) 1_0_Wanting to advance present knowledge (5-1) 1_0_Wanting to learn ABC (1-1) 1_0_Wanting to learn ABC knowledge 2 (3-1) 1_0_Wanting to learn ABC knowledge 1 (1-1)	< >	01_KSE category (*-0) 01_Motivation to learn & Affective reaction (*-0) 01_Perc Env category (*-0) 01_PRE T SE category (*-0) 01_Work Att category (*-0) 02_Motivation to learn & utility reaction (*-0) 03_Motivation to learn & understanding (*-0) 04_Motivation to learn & Training self efficacy (*-0) 05_Affective reaction & Motivation to transfer (*-0) 06_Highly reaction & Motivation to transfer (*-0)
--	-----	---

137 Families 01_0_Desiring to learn knowle

Desktop 1:54 AM 22/11/2012

APPENDIX E3 (continue)

Sorting categories and properties using code family (sample 2)

The screenshot shows the Code Family Manager application window. The title bar reads "Code Family Manager [HU: A_25Jun12_Final_Engaging in Transfer trajectory]". The menu bar includes "Families", "Edit", "Miscellaneous", and "View". Below the menu bar is a toolbar with various icons. The main area is divided into three sections:

- Top Section:** A list of code families. The first item, "02_2a_understanding facts (14)", is highlighted in blue. Other items include "02_2a_understanding objectives (9)", "02_2a_understanding problem in costing (2)", "02_2a_understanding procedure with help (3)", "02_2a_Understanding situation to use (10)", "02_2b_applying procedure to use (13)", "02_2b_Gaining skill (9)", "02_2c_adopting business requirements (7)", "02_2c_Having confident to improve (9)", "02_2c_having confident to use concept/procedure (25)", "02_2c_Lacking confident to apply (8)", "03_0_lacking desire to use (4)", "03_0_MTT (3)", "03_0_wanting to use concept (8)", "03_0_wanting to use knowledge/skill (9)", "03_1_reasoning motive to apply (5)", "03_1_Valuing outcome satisfying (11)", "03_1_valuing personal philosophy (9)", "03_2_wanting to improve cost (14)", "03_2_wanting to improve work (4)", "03_3_wanting reward (3)", and "03_3_wanting to achieve objectives (8)".
- Middle Section:** A list of categories and properties for the selected code family. On the left, categories include "2_2a_Advancing knowledge through training (1-0)", "2_2a_Looking forward present knowledge (1-0)", "2_2a_Realizing ABC benefits and impacts (1-0)", "2_2a_Understanding ABC approach (1-0)", "2_2a_understanding ABC benefits (1-0)", "2_2a_Understanding ABC facts (1-0)", "2_2a_Understanding ABC facts and objectives (1-0)", "2_2a_Understanding ABC to enhance MTT (1-0)", and "2_2a_Understanding contents throughly (1-0)". On the right, properties include "01_KSE category (*-0)", "01_Motivation to learn & Affective reaction (*-0)", "01_Perc Env category (*-0)", "01_PRE T SE category (*-0)", "01_Work Att category (*-0)", "02_Motivation to learn & utility reaction (*-0)", "03_Motivation to learn & understanding (*-0)", "04_Motivation to learn & Training self efficacy (*-0)", "05_Affective reaction & Motivation to transfer (*-0)", and "06_Hility reaction & Motivation to transfer (*-0)".
- Bottom Section:** A status bar showing "137 Families" and "02_2a_understanding facts". The Windows taskbar at the bottom includes icons for Internet Explorer, Firefox, and other applications, along with the system clock showing "1:54 AM" and "22/11/2012".

APPENDIX E4

List of categories and its properties

Experiences of Activity-Based Costing Training:

Sustaining Progress Toward Training Transfer

1 Code Family "1_0_MotivationToLearn [Wanting to acquire training contents]"

2	1_0_Having desire to learn	1_0_Desiring to learn knowledge
6	1_0_Motivation to learn	1_0_Desiring to learn knowledge
9	1_0_Wanting to acquire ABC knowledge 3	1_0_Desiring to learn knowledge
12	1_0_Wanting to advance knowledge	1_0_Desiring to learn knowledge
13	1_0_Wanting to advance present knowledge	1_0_Desiring to learn knowledge
14	1_0_Wanting to learn ABC	1_0_Desiring to learn knowledge
15	1_0_Wanting to learn ABC knowledge 1	1_0_Desiring to learn knowledge
16	1_0_Wanting to learn ABC knowledge 2	1_0_Desiring to learn knowledge
19	1_1_Promoting ABC as management approach over costin	1_0_Desiring to learn knowledge
3	1_0_I should check if lacking understanding but motivation	1_0_Desiring to learn knowledge with help
4	1_0_Improve learning with hand-out	1_0_Desiring to learn knowledge with help
8	1_0_Showing interest to learn knowledge and skill	1_0_Desiring to learn skill
10	1_0_Wanting to acquire practical skill	1_0_Desiring to learn skill
11	1_0_Wanting to acquire skill	1_0_Desiring to learn skill
5	1_0_Looking forward to improve expertise	1_0_Desiring to learn to master
7	1_0_MotivationToLearn [Wanting to acquire training conten	1_0_Desiring to learn to master
17	1_0_Wanting to produce outcomes	1_0_Desiring to learn to master
18	1_1_Having intention to implement but not- F Notes	1_0_Desiring to learn to master
20	1_1_Valuing ABC learning benefit	1_1_Valuing learning benefit
21	1_1_Valuing ABC learning benefit as attractive a prerequisi	1_1_Valuing learning benefit
22	1_1_Valuing ABC training outcome strategy level	1_1_Valuing learning benefit
23	1_1_Valuing objective as attractive	1_1_Valuing learning benefit
24	1_1_Valuing the training important 2_1b	1_1_Valuing learning benefit

25

26 Code Family "2_1a_Reaction/affective [Feeling enjoyment in training]"

33	2_1a_Feeling satisfied with content	2_1a_Feeling satisfy with content
34	2_1a_Feeling satisfy with training	2_1a_Feeling satisfy with content
41	2_1a_Perceiving training as gaining knowledge	2_1a_Feeling satisfy with content
43	2_1a_Satisfying with abc content	2_1a_Feeling satisfy with content
40	2_1a_Liking delivery method	2_1a_Feeling satisfy with delivery
44	2_1a_Satisfying with delivery method	2_1a_Feeling satisfy with delivery
37	2_1a_Feeling Training design satisfied	2_1a_Feeling satisfy with delivery
27	2_1a_Effective reaction	2_1a_Feeling satisfy with environment
28	2_1a_Expressing satisfaction with environment	2_1a_Fewling satisfy with environment
29	2_1a_Expressing satisfy feeling	2_1a_Fewling satisfy with environment
30	2_1a_Feeling emotionally satisfied	2_1a_Fewling satisfy with environment
31	2_1a_Feeling enjoyment	2_1a_Fewling satisfy with environment
32	2_1a_Feeling enjoyment during training	2_1a_Fewling satisfy with environment
35	2_1a_Feeling training enlighten	2_1a_Fewling satisfy with environment
38	2_1a_Feeling training environment satisfied	2_1a_Fewling satisfy with environment
39	2_1a_Feeling training joy	2_1a_Fewling satisfy with environment
36	2_1a_Feeling training contents and delivery satisfying	2_1a_Fewling satisfy with environment
45	2_1a_Thanking speaker personally	5_2d_Representing self to thank
42	2_1a_Personally thanking organiser	
46	5_1b_Attended CPD previously	
47	5_1b_Attended related CPD previously	

48

49 Code Family "2_1b_Reaction/Utility [Feeling relevance of the training]"

54	2_1b_Feeling training as satisfying	2_1a_Feeling satisfy with environment
68	2_1b_Hoping to relate later enjoyment	2_1a_Feeling satisfy with environment

APPENDIX E4 (continue)

712		
713		
714	Code Family "5_3f_Reputation others"	
715	5_3f_Knowing where to locate information to solve problem	4-1b
716	5_3f_Matching the product quality with MNC	→ J/C 5-2b
717		
718		
719	Code Family "5_3g_Inhibitors"	
721	5_3g_Having work under lead time pressure	5_3g_Perceiving lack of priority
722	5_3g_Identifying factor hinders	5_3g_Perceiving lack of priority
723	5_3g_Identifying work priority	5_3g_Perceiving lack of priority
724	5_3g_Having gross estimation	5_3g_Perceiving lack of priority
725	5_3g_Focusing on getting customer instead of improvement	5_3g_Perceiving lack of priority
729	5_3g_Stating priority on focus	5_3g_Perceiving lack of priority
731	5_3g_Having priority on cosmetic feature	5_3g_Perceiving lack of priority
737	5_3g_Stick with conventional costing method	5_3g_Perceiving lack of priority
739	5_3g_comparing ABC benefit with other cost control approach	5_3g_Perceiving lack of priority
741	5_3g_Perceiving difficulties to encourage other to support	5_3g_Perceiving lack of priority
742	5_3g_Having used conventional method	5_3g_Perceiving lack of priority
743	5_3g_Thinking overhead as low priority	5_3g_Perceiving lack of priority
744	5_3g_Not having opportunity to use at work	5_3g_Perceiving lack of priority
747	5_3g_Following benchmarking method	5_3g_Perceiving lack of priority
720	5_3g_Perceiving lack of opportunity to apply training	5_3g_Perceiving lack of time
736	5_3g_Working time inconstant	5_3g_Perceiving lack of time
746	5_3g_Facing problem to estimate working time	5_3g_Perceiving lack of time
727	5_3g_Having problem with costing	5_3g_Perceiving lack of practical knowledge
728	5_3g_Identifying difficulties to use	5_3g_Perceiving lack of practical knowledge
730	5_3g_Hoping to advance training skill	5_3g_Perceiving lack of practical knowledge
734	5_3g_reasoning ABC adoption challenges	5_3g_Perceiving lack of practical knowledge
738	5_3g_Depending to other expertise	5_3g_Perceiving lack of practical knowledge
740	5_3g_Comparing theory to actual work	5_3g_Perceiving lack of practical knowledge
726	5_3g_Identifying the limit to use abc	5_3g_Perceiving lack of scope
732	5_3g_Realizing the limitation to make implementation decision	5_3g_Perceiving lack of scope
733	5_3g_Identifying the limit to do improvement	5_3g_Perceiving lack of scope
735	5_3g_Justifying the limit to do improvement	5_3g_Perceiving lack of scope
745	5_3g_Having constraint with standard	5_3g_Perceiving lack of scope

APPENDIX E5

Sample works on conceptualizing categories and properties

		Using/demonstrating ABC procedure	
		Using ABC concept	
		Using ABC strategy	
		Adopting of ABC Objectives in work	
		Adopting ABC concept in workplace	
		Sustaining the ABC Purpose	
		Retaining the Implementation Procedure	
		Creating ABC awareness at work	
		Initiating ABC Project	
		Leading others to use ABC	
Trainees General Experiences	Upbringing -age, gender, race	Working as young engineers	
		Working as matured engineers	
Trainees' KSAE	Do Possessing Special Skill		
Knowledge		Having Engineering Degree	
		Having graduate degree	
Skill		Do Possessing Special Skill (IT)	
		Having professional qualification	
		Showing high aptitude of learning (Knowledge)	
Ability		Producing performance on task given (Ability)	
		Having management post	
Experiences	Having years of working experiences		
		Attending CPE previously	
Work related personality (attitude)	Conforming Behavior to Work Requirement	Conforming Behavior to Work Requirement	
		Seeing self as continuous learner	
		Aligning with organization requirements	
		Demonstrating prior training	
		Expressing willingness to learn	

APPENDIX E6

Sample works on comparing results with literature to refine categories

Categories Authors	C1, C2, C3		C4, C5, C6	
	Personal characteristics (3 categories)	Works factors - attitude	Perceived work environment	Perceived supervisor support
Ayres	Demographic age young age middle age mature gender man gender woman	KSAE pre-training - Ability KSAE initial formal Eng education-K1 KSAE additional education-K3 KSAE Eng degree advancement-K2 KSAE years of experience-S1 KSAE previous CPE experience-S2 Reaction to previous CPE program Previous CPE learning-S Self esteem Personality and need Ability-readiness to learn KSAE Pre training self efficacy-A1 SE-enactive mastery-personal attainment	Works factors - attitude Job involvement-highly involved Job Utility/attitude Career utility/attitude Reaction to prev CPE program Previous CPE evaluation locus of control internal locus of control external Job involvement-identify as self image Autonomy trainee ability	Perceived supervisor support Perceived peer support Perceived supervisor sanction Perceived situational constrain perceived lack of opportunity perceived opportunity to use perceived absence of tools work facilities
Mathieu				
Neo				
Baldwin F				
Holton		vicarious experience-modelling verbal persuasion- cognitive arousal integration Mnfg process self efficacy	Job attitudes Training readiness fulfilment Involvement in training Orga commitment Career factors intrinsic incentive extrinsic incentive career exploration usefulness of training innovator middle majority Pace setter laggard	perception training External event
Clark				
Facteau				Perceived top management Perceived task constrain
Quinones		Fairness perception		
Machin		Locus of control Job involvement Career attitudes Reaction to previous CPE Reaction to ABC		
Rouiller				
Foxon				
Potet		Career planning	Accountability	
Clasen	training knowledge			
Cervero	Laggards Middle majority Pace setters Innovators			
Sanche		Background characteristics		

APPENDIX E7

Sample work on identifying relationships between/within categories using query tools in Atlas.ti
(sample 1)

The screenshot displays the ATLAS.ti Query Tool interface. The left pane shows a hierarchy of 'Families' and 'Codes'. The 'Families' list includes categories like '2_1_REACTION (all aspects) (*)' and '2_1a_AFFECTIVE REACTION (all aspects) (*)'. The 'Codes' list includes specific codes such as '2_1a_Feeling Training design satisfied (1-0)' and '2_1a_Reaction_Azman (1-0)'. The 'Query' field contains the text: 'PRECEDES("1_MTL (all aspects)"; "2_1a_AFFECTIVE REACTI...'. Below the query field, the results are displayed in a table format.

Id	Name	Codes	Size	Start	De...	Author	Cre
1:3	Nota "hand-out" dan yang disediakan...	1_0_Improve learning with hand-out	1	15	2	Super	24/04
2:5	Sekiranya boleh bantuan bagi me...	1_0_Wanting to advance present k...	1	15	2	Super	24/04
2:8	Walau pun bagitu latihan ini mem...	1_0_Wanting to advance present k...	1	20	1	Super	24/04
5:1	Untuk tambah lagi ilmu kita.	1_0_Wanting to learn ABC knowle...	1	11	2	Super	27/04
9:4	Aa.. saya rasa untuk tambah tamba...	1_0_2_2b_Wanting to improve skill	1	11	2	Super	10/05
10:9	Tapi untuk buat secara praktik, mu...	1_0_2_2b_Wanting to ABC skill mo...	1	25	2	Super	11/05
10:...	Dari segi pelaksanaan keseluruhan, s...	1_0_2_2b_Looking to improve ABC ...	1	32	2	Super	11/05
12:1	Bagi saya kita (sebab motivasi unt...	1_0_Desiring to learn knowledge, ...	1	13	6	Super	12/05

At the bottom of the interface, the status bar shows 'Result: 8', 'Adjacency: 1 Paragraphs', and 'Scope: All'. The Windows taskbar at the bottom indicates the system time as 2:22 AM on 22/11/2012.

APPENDIX E7 (continue)

Sample work on identifying relationships between/within categories using query tools on Atlas.ti
(sample 2)

The screenshot displays the ATLAS.ti Query Tool interface. On the left, there are two panes: 'Families' and 'Codes'. The 'Families' pane lists several categories, with '2_1a_AFFECTIVE REACTION (all aspects) (*)' selected. The 'Codes' pane lists numerous specific codes, such as '2_1a_Feeling Training design satisfied (1-0)'. The main area shows a query: 'PRECEDES("1_MTL (all aspects)","2_1a_AFFECTIVE REACTI...'. Below the query, the results are displayed in a table format. The table has columns for Id, Name, Codes, Size, Start, De..., Author, and Cr... The results show 8 entries, each with a unique Id and a corresponding Name and Codes.

Id	Name	Codes	Size	Start	De...	Author	Cr...
1:3	Nota 'hand-out' dan yang disediak...	1_0_Improve learning with hand-out	1	15	2	Super	24/04
2:5	Sekiranya boleh bantuan bagi me...	1_0_Wanting to advance present k...	1	15	2	Super	24/04
2:8	Walau pun begitu latihan ini mem...	1_0_Wanting to advance present k...	1	20	1	Super	24/04
5:1	Untuk tambah lagi ilmu kita.	1_0_Wanting to learn ABC knowle...	1	11	2	Super	27/04
9:4	Aa.. saya rasa untuk tambah tamba...	1_0_2_2b_Wanting to improve skill	1	11	2	Super	10/05
10:9	Tapi untuk buat secara praktik, mu...	1_0_2_2b_Wanting to ABC skill mo...	1	25	2	Super	11/05
10:...	Dari segi pelaksanaan keseluruhan, s...	1_0_2_2b_Looking to improve ABC ...	1	32	2	Super	11/05
12:1	Bagi saya kita (sebab motivasi unt...	1_0_Desiring to learn knowledge, ...	1	13	6	Super	12/05

At the bottom of the interface, there are buttons for 'Refresh Codes', 'Scope', and 'Help'. The status bar at the very bottom shows 'Result: 8', 'Adjacency: 1 Paragraphs', and 'Scope: All'. The Windows taskbar at the bottom indicates the system time as 2:22 AM on 22/11/2012.

APPENDIX E8

Sample of manual checking for relationships between and within categories using query tools of Atlas.ti.

Engaging in Training Transfer Progression/trajectory			
No.	Initiating category	Following category	Count
1	MTL (4) motivation to learn ✓	affective reaction ✓ (2)	3
2	MTL	utility reaction ✓ (2)	4
3	MTL	understanding-applying	4
4	MTL	Post-training self-efficacy ✓ (4)	3
5	affective reaction	MTT	4
6	utility reaction	MTT	4
7	understanding-applying	MTT	6
8	training self-efficacy	MTT	5
9	affective reaction	utility reaction	2
10	affective reaction	understanding-applying	7
11	affective reaction	training self-efficacy	2
12	utility reaction	understanding-applying	6
13	utility reaction	training self-efficacy	4
14	understanding-applying	training self-efficacy	5
15	MTT	transfer strategy ✓ (5)	5
16	transfer strategy	transfer implementation ✓ (6)	11
17	transfer implementation	perceived results	11
18	Factors affecting training transfer experiences		
19	pre-training self-efficacy ✓ (7)	MTL motivation to	2
20	job/career utility ✓ (8)	MTL (12) transfer ✓	5
21	job commitment ✓ (9)	MTL	4
22	locus of control ✓ (10)	MTL	11
23	attitude toward learning ✓ (11)	MTL	11
24	pre-training self-efficacy	affective reaction	2
25	job/career utility	affective reaction	1111
26	job commitment	affective reaction	1111
27	locus of control	affective reaction	1111
28	attitude toward learning	affective reaction	11
29	pre-training self-efficacy	utility reaction	1111
30	job/career utility	utility reaction	1111
31	job commitment	utility reaction	1111
32	locus of control	utility reaction	1111
33	attitude toward learning	utility reaction	11
34	pre-training self-efficacy	understanding	11
35	job/career utility	understanding	1111
36	job commitment	understanding	11
37	locus of control	understanding	11
38	attitude toward learning	understanding	11

APPENDIX F1

Figuring the overall links between categories



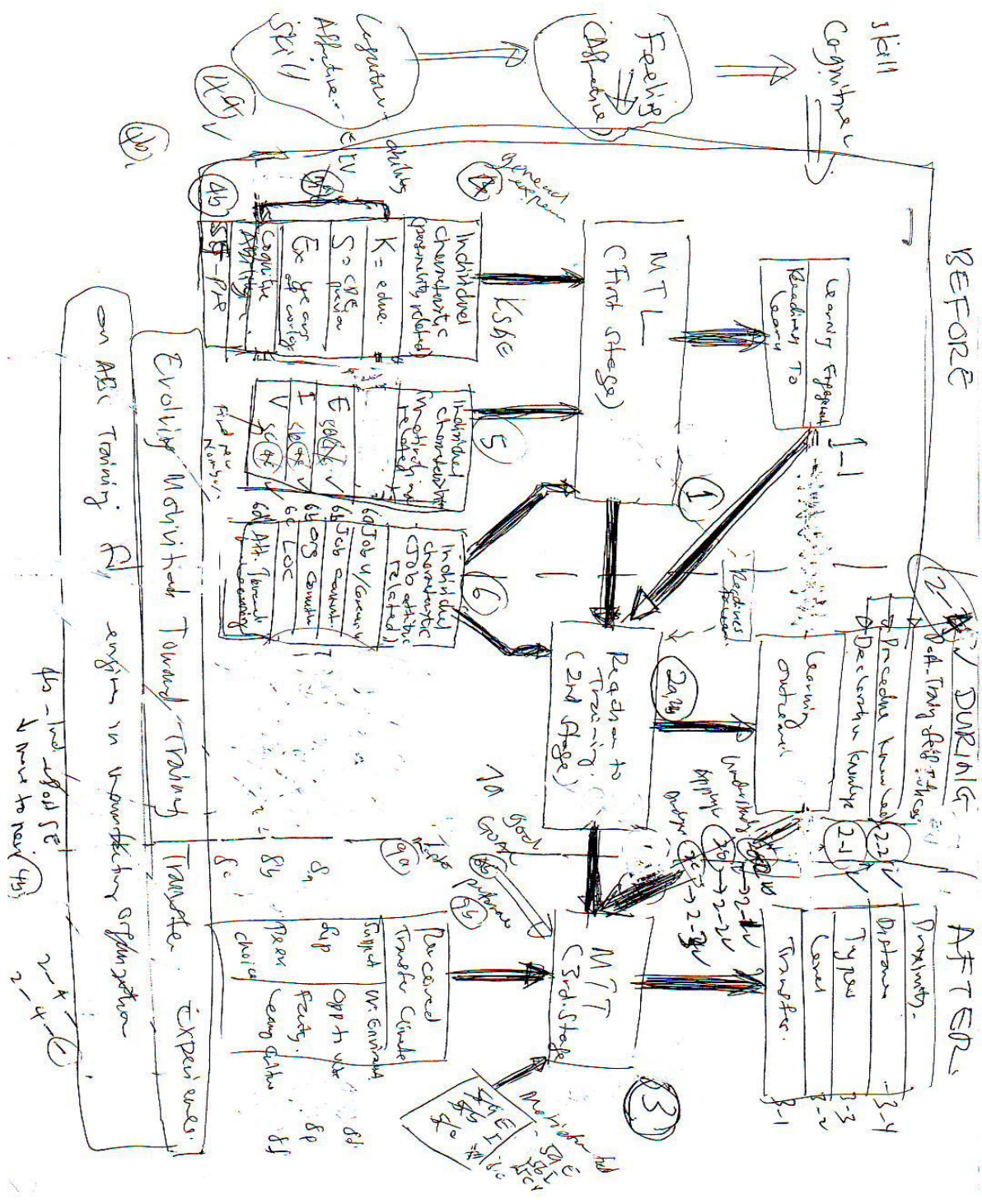
APPENDIX F2

Refining relationships and filling gaps in categories



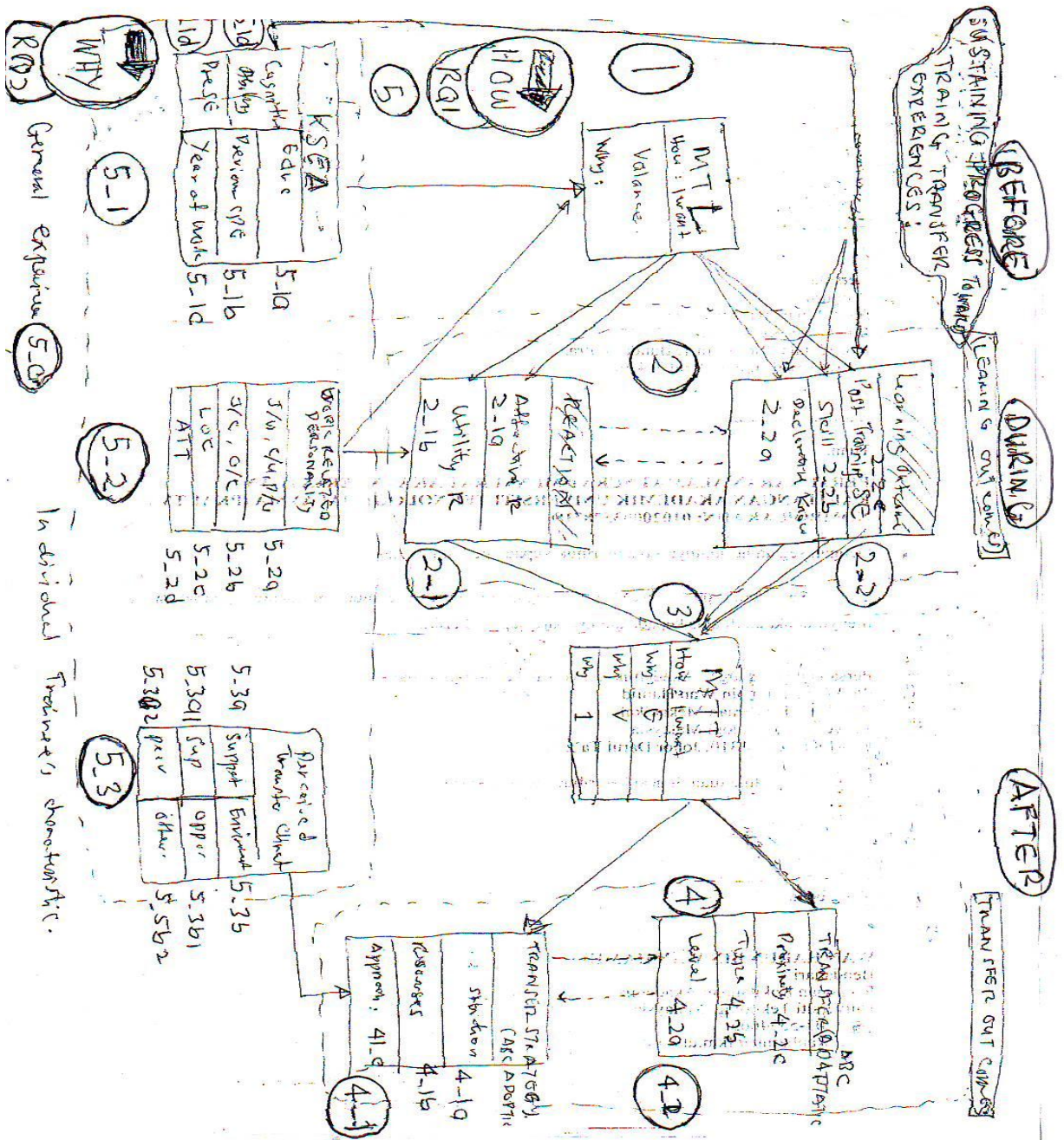
APPENDIX F3

Selecting the core theme to link to other categories



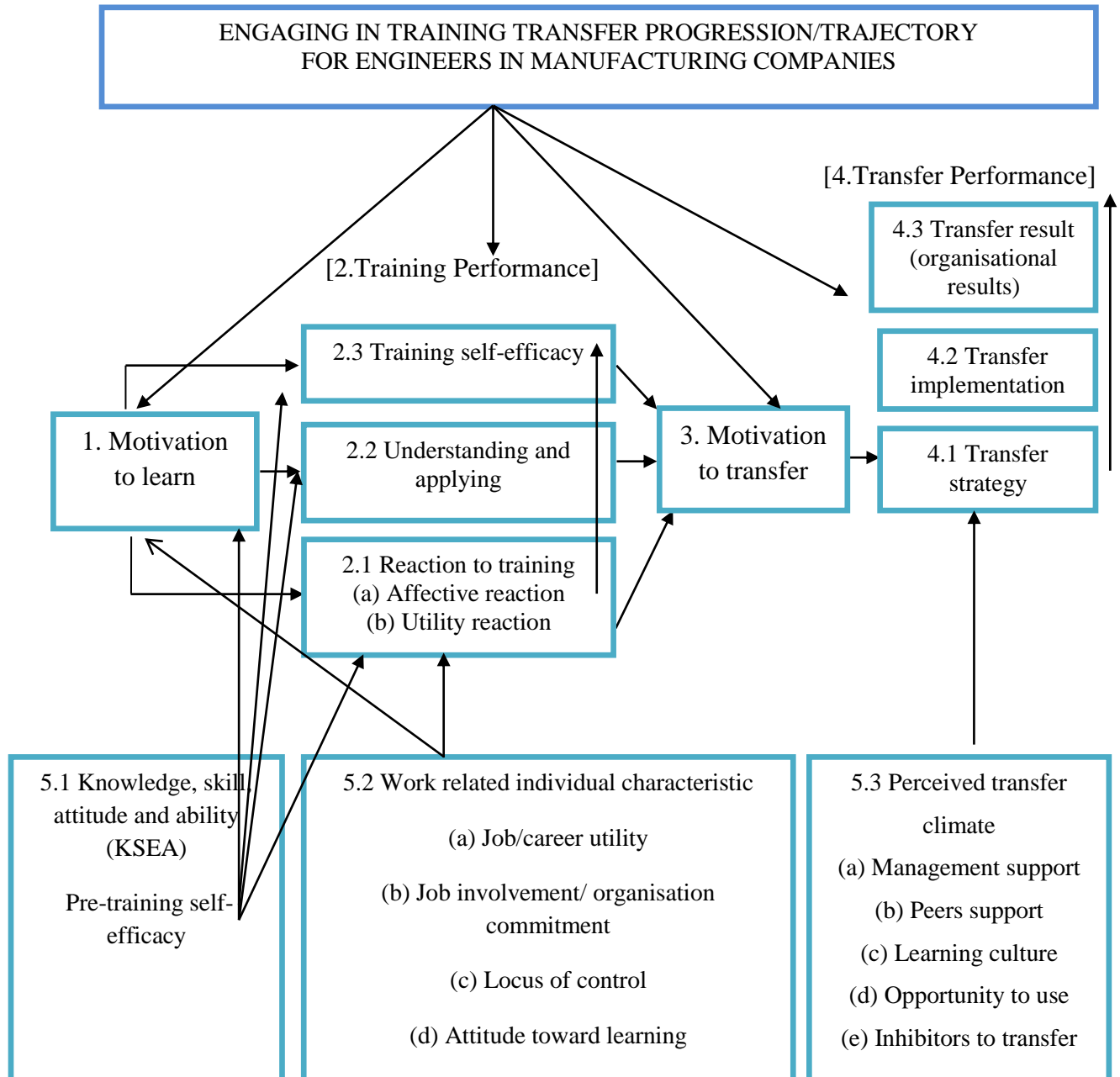
APPENDIX F4

Refining concept and relationships between categories



APPENDIX F5

Finalising concept and relationships between all categories



APPENDIX G1**List of publications and conference presentations****Journal:**

W. H. Wan Hamid, M. Z. Mat Saman, M. S. Saud (2012). Exploring Factors Influencing the Transfer of Training Using a Grounded Theory Study: Issues and Research Agenda. *Procedia - Social and Behavioral Sciences* . Elsevier Science Direct. (ISSN: 1877-0428). 56 (2012): 662 – 672.

Conferences:

W.H. Wan Hamid, M.Z. Mat Saman, M.S. Saud (2010). The Integrated Framework for Factors Influencing the Transfer of Activity-Based Costing Training: Critical Review and Research Strategy. *Regional Conference of Engineering Education and Research in Higher Education (RCEE & RHEd 2010)*. Kuching, Sarawak, Malaysia, 7 – 9 June.

W.H. Wan Hamid, M.Z. Mat Saman, M.S. Saud (2012). Exploring Factors Influencing the Transfer of Training Using A Grounded Theory Study: Issues and Research Agenda. *Regional Conference of Engineering Education and Research in Higher Education (RCEE & RHEd 2012)*. Seremban, Malaysia, 10-11 April.

APPENDIX G2

Member's checking for meanings to coded quotations of interview transcribes

KOD DOKUMEN: P05-13 (KL)

Computer Assisted Qualitative Data Analysis Using Atlas.ti Software

Penyelidikan: Transfer of Activity based Costing Training in manufacturing Companies.
 Penyelidik : Wan Harun bin Wan Hamid, CQE
 (Engineering Education Research, Universiti Teknologi Malaysia).

2. Submitted Information:
 Tarika latihan (sila pilih satu)
 16 July 2011 (UTM KL)

1. Apakah konsep atau pengetahuan atau kemahiran penting yang telah anda peroleh daripada latihan ini dan bagaimana anda buat agar dapat diamalkan ditempat kerja?
 Pengetahuan yang telah saya dapati dari latihan ini adalah satu kaedah yang berkesan dalam mengawal kos bagi sesebuah organisasi. Namun begitu, saya belum dapat mengamalkannya lagi ditempat kerja saya.

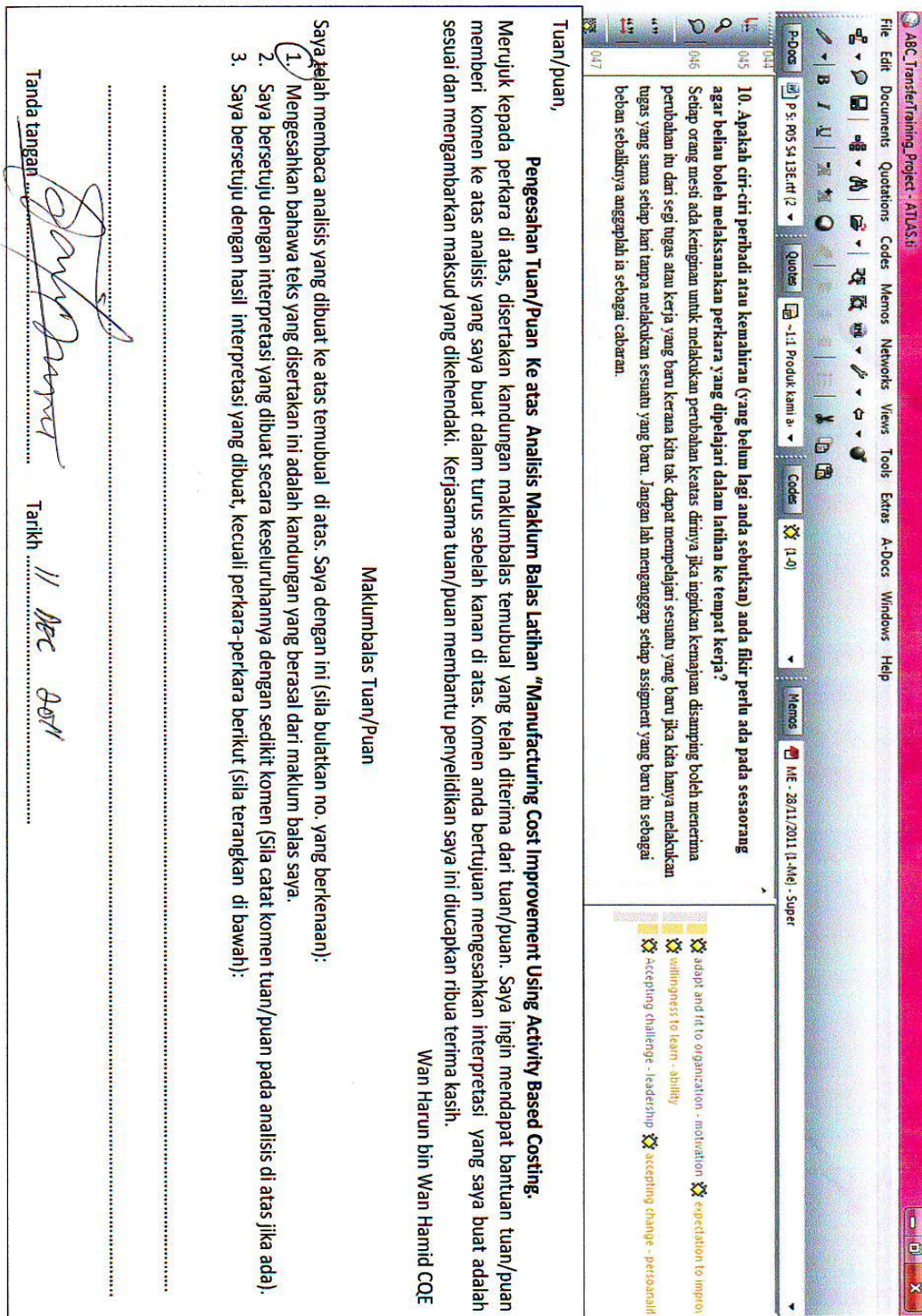
2. Apakah bahagian latihan yang mudah untuk diamalkan dan mana pula sukar diamalkan? Apakah konsep atau pengetahuan atau kemahiran yang anda boleh gunakan dalam kerja anda? Beri sebabnya.
 Saya rasa kaedah ABC ini memang mudah untuk diamalkan jika mendapat bimbingan yang berterusan dari orang yang lebih berpengalaman tetapi ia akan menjadi sukar sekiranya tak mendapat sokongan dari setiap ahli.

3. Apakah harapan dan matlamat anda dari latihan ini? Terangkan perkara-perkara yang anda ingin lakukan menggunakan secara tak langsung atau langsung apa yang telah anda pelajari?
 Harapan saya agar saya dapat menguasai kaedah ABC ini dengan sebaik mungkin untuk di implementasikan di mana-mana jua tempat saya bekerja.
 Saya ingin membuat kawalan kos melalui kaedah ABC ini.

- 003 Declarative knowledge - abcrfunction
- 004 Theoretical knowledge - expecting to use what was leame
- 005
- 006
- 007
- 008
- 009
- 010 procedure knowledge - gain skill
- 011 leadership = lacking ability to influence others
- 012
- 013 training outcome expectancy - motivation
- 014
- 015 perceive relevance - motivation
- 016

APPENDIX G2

(continue)



10. Apakah ciri-ciri perbadi atau kemahiran (yang belum lagi anda sebutkan) anda fikir perlu ada pada seseorang agar beliau boleh melaksanakan perkara yang dipelajari dalam latihan ke tempat kerja?
 Setiap orang mesti ada keinginan untuk melakukan perubahan keatas dirinya jika inginkan kemajuan disamping boleh menerima perubahan itu dari segi tugas atau kerja yang baru kerana kita tak dapat mempelajari sesuatu yang baru jika kita hanya melakukan tugas yang sama setiap hari tanpa melakukan sesuatu yang baru. Jangan lah menganggap setiap assignment yang baru itu sebagai beban sebaliknya anggaplah ia sebagai cabaran.

adap and fit to organization - motivation
 willingness to learn - ability
 accepting challenge - leadership
 accepting change - personal

Tuan/puan,
Pengesahan Tuan/Puan ke atas Analisis Maklum Balas Latihan "Manufacturing Cost Improvement Using Activity Based Costing.
 Merujuk kepada perkara di atas, disertakan kandungan maklumbalas temubual yang telah diterima dari tuan/puan. Saya ingin mendapat bantuan tuan/puan memberi komen ke atas analisis yang saya buat dalam turus sebelah kanan di atas. Komen anda bertujuan mengesahkan interpretasi yang saya buat adalah sesuai dan mengimbarikan maksud yang dikehendaki. Kerjasama tuan/puan membantu penyelidikan saya ini diucapkan ribuan terima kasih.

Maklumbalas Tuan/Puan
 Wan Harun bin Wan Hamid COE

Saya telah membaca analisis yang dibuat ke atas temubual di atas. Saya dengan ini (sila buatkan no. yang berkenaan):

1. Mengesahkan bahawa teks yang disertakan ini adalah kandungan yang berasal dari maklum balas saya.
2. Saya bersetuju dengan interpretasi yang dibuat secara keseluruhannya dengan sedikit komen (Sila catat komen tuan/puan pada analisis di atas jika ada).
3. Saya bersetuju dengan hasil interpretasi yang dibuat, kecuali perkara-perkara berikut (sila terangkan di bawah):

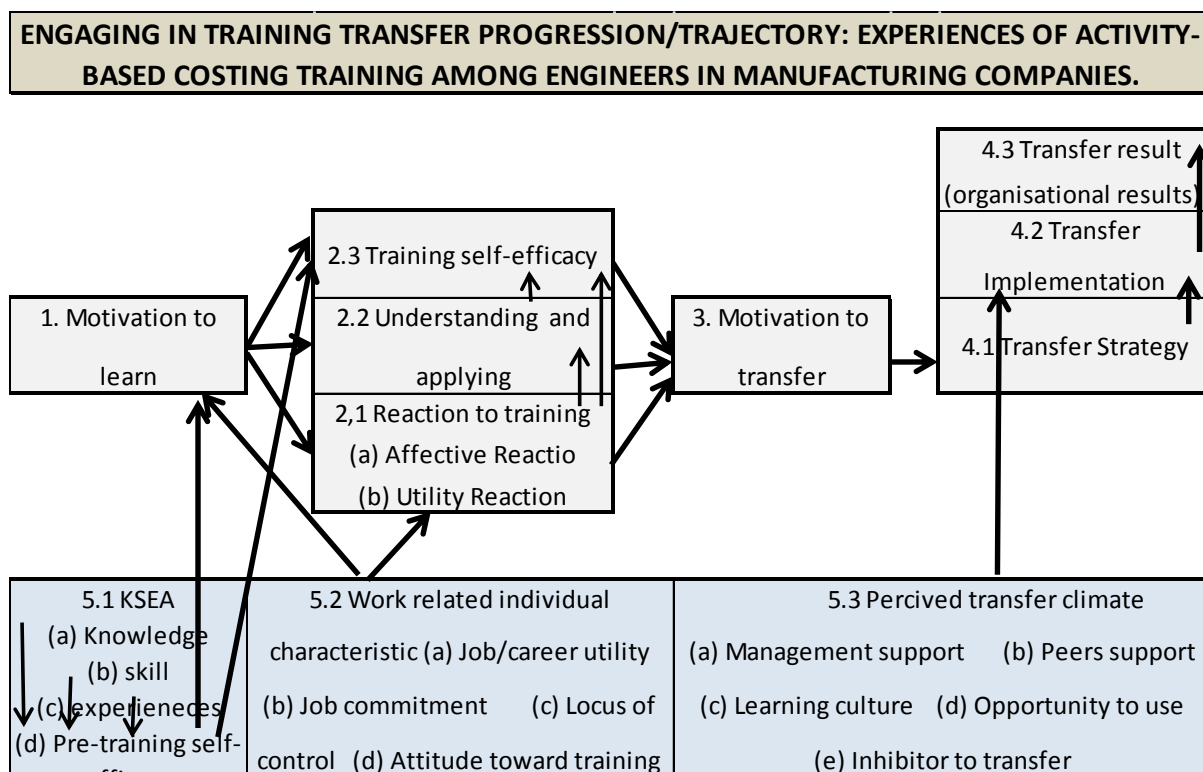
.....

.....

Tanda tangan.....
 Tarikh 11 Dec 2011

APPENDIX G3

Member checks on findings of the study (sample 1 - page 1)



The above diagram related to “Engaging in training transfer progression” that describes the following experience related to ABC training:

1. Training participants deal with own feeling, thinking and starting from the day having (1) an intention to learn about ABC training to the next level of (2) learning experience (training outcomes), that creates (3) motivation to use (transfer) and finally to (4) the actual use the training in work (transfer outcomes) in progression (with respect to time).
2. Training participants sustain progress in a path toward use the training (transfer). This commitment helps a person to gain and grow his/her knowledge and skill on ABC method, Those attended the training always understand his present stage and attract his/her intention to proceed to the next stage of deeper and higher level of commitment toward what is seen possible and value to them.
3. Training participants have strategy in managing to use the training as the next stage in progression involving own feeling

APPENDIX G3 (continue)

Member checks on findings of the study (sample 1- page 2)

and thinking. New engineers with less experience, express greater concern on the possibility to use the training in their work place than feeling and understanding about training.

4. Training participant did reflect back what has been learned to remind them on the possibility of future application of the training by connecting or evaluating the relevance of ABC to work for cost improvements. By implementing ABC at work, trainee perceives the successful progress and perceives the result of the training.

How does the above description reflect your experience about the ABC training?

ABC is a very practical and excellence approach to be implemented in organisations. I found out that this training benefit to myself – in term of personal growth of knowledge, having different perceptions and skills.

Which part that you feel very close to your experience? Why?

Part of the understanding. This is because due to this training for the first time I realised that the traditional costing is nor practical to be used in all area. From this training, I have had an idea that may be each particular area needs a particular costing approach.

Which part that you feel less related to your experience? Why?

Transfer implementation. Because I had no suitable space, opportunity and time to do it.

Which are that you do not agree? What should be the better way to describe your experience?

None, all I agree.

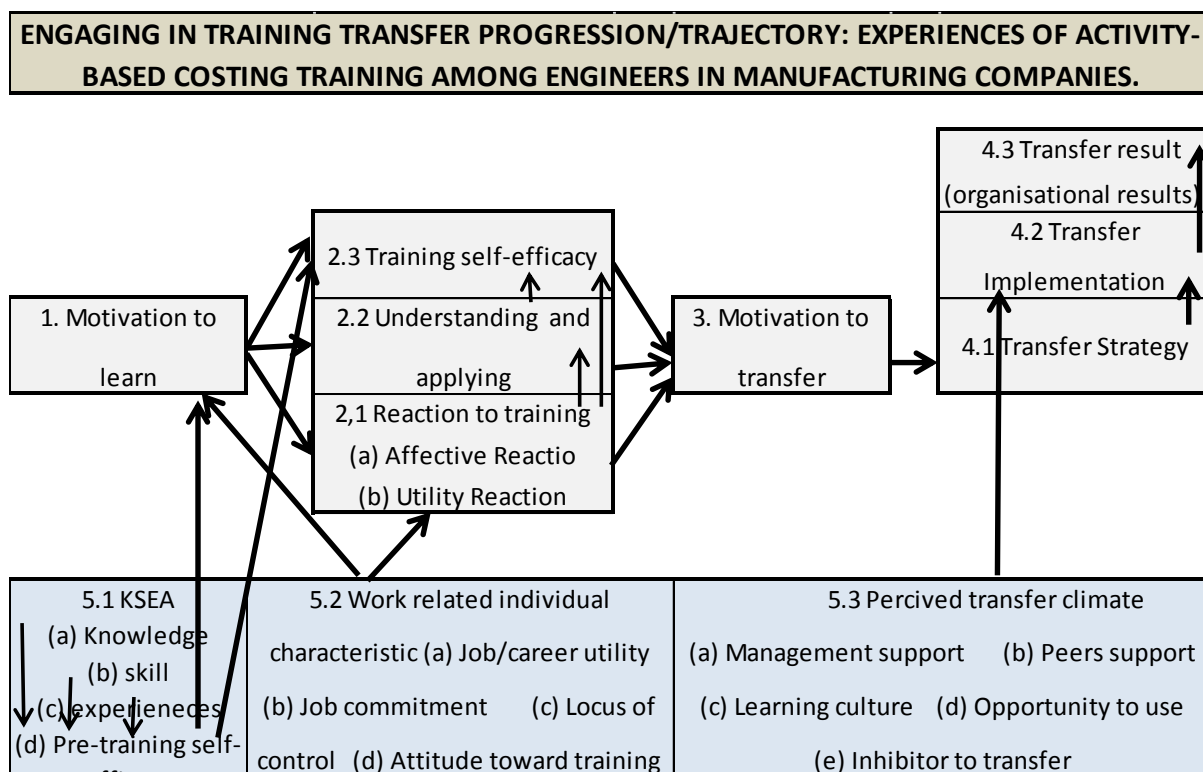
Other comments that you want to suggest to improve the above description?

Internal factors such as influence by government support, support from established society such as Quality Engineers Society. This could be the transfer of training to organisations.

Thank you.

APPENDIX G3 (continue)

Member checks on findings of the study (sample 2 - page 1)



The above diagram related to “Engaging in training transfer progression” that describes the following experience related to ABC training:

1. Training participants deal with own feeling, thinking and starting from the day having (1) an intention to learn about ABC training to the next level of (2) learning experience (training outcomes), that creates (3) motivation to use (transfer) and finally to (4) the actual use the training in work (transfer outcomes) in progression (with respect to time).
2. Training participants sustain progress in a path toward use the training (transfer). This commitment helps a person to gain and grow his/her knowledge and skill on ABC method, Those attended the training always understand his present stage and attract his/her intention to proceed to the next stage of deeper and higher level of commitment toward what is seen possible and value to them.
3. Training participants have strategy in managing to use the training as the next stage in progression involving own feeling and thinking

APPENDIX G3 (continue)
Member checks on findings of the study (sample 2 - page 2).

New engineers with less experience, express greater concern on the possibility to use the training in their work place than feeling and understanding about training.

4. Training participant did reflect back what has been learned to remind them on the possibility of future application of the training by connecting or evaluating the relevance of ABC to work for cost improvements. By implementing ABC at work, trainee perceives the successful progress and perceives the result of the training.

How does the above description reflect your experience about the ABC training?

New knowledge on costing. ABC training focus more on this method, refresh back what I learn during my degree study.

Which part that you feel very close to your experience? Why?

Part of motivation to learn. Because no opportunity to implement it at my workplace. Because I am working at quality department, less expose to this area.

Which part that you feel less related to your experience? Why?

Part of motivation to transfer. Because I I had no opportunity to use it. And during training all the methods are simple and straight forward.

Which are that you do not agree? What should be the better way to describe your experience?

I agree on all these.

Other comments that you want to suggest to improve the above description?

More expose to peers, so that all can influence to the implementation to this method.

Thank you.