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Procedia - Social and Behavioral Sciences 56 (2012) 662 – 672

Procedia
Social and Behavioral Sciences

International Conference on Teaching and Learning in Higher Education (ICTLHE 2012) in
conjunction with RCEE & RHED 2012

Exploring Factors Influencing the Transfer of Training Using a Grounded Theory Study: Issues and Research Agenda

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Abstract

The aim of this study is to develop a final outcome in the form of a substantive theory on the transfer of training. The methods of initial data collection were: face-to-face interviews with the trainees, observations at the trainers' workplace and on-line interview feedbacks. In accordance to the Grounded Theory requirements, the participants were selected using purposive sampling method taken from the list of trainees who have attended the training series which were held six months earlier prior to the first data collection tasks. The results revealed individual factors of trainees that influences the transfer of training can be classified and categorized into four main factors; the ability of trainees, trainees' motivation, self-efficacy and attitudes and commitment of the trainees.

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Keywords: Transfer of training; factors influencing transfer of training; grounded theory; Activity Based Costing

1. Introduction

Transfer of training is related to the application of knowledge, skills and attitudes learned from training on the job and subsequent maintenance of them over a certain period of time [1]. Looking from trainees' perspective this can be measured from changes in behaviour in the job setting [2]. One issue of transfer of training that has been highlighted in literature was the ineffective of training outcomes. Training is regarded as an expensive investment to business organizations especially in most developed countries. For example, approximately \$100 billion was spent on annual training costs by organizations in United State of America, however only about 10 per cent has led to positive transfer results [3]. Similarly, developing countries also allocated a significant budget

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for training expenses, for example in Malaysia, the 9th Malaysian Plan report showed a total of RM50,586 million spent on training and education (i.e. RM1,332 million has specifically allocated for training and consultancy in manufacturing) [4], but no reported data was available on the impact of this training efforts to performance of manufacturing organizations. Practically, most training was done using conventional training approaches; thus, it does not properly address the transfer issues. This situation has led to a costly and untimely effort because they were unable to deliver the expected result. Based on the present status in training effectiveness, it becomes a 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 especially to identify and understand factors influencing transfer including the nature of interrelationship between these factors.

This study aims to investigate the outcome of Activity Based Costing (ABC) training. We first present an overview of current literature in this area. ABC is a cost management tool and defined by CAM-I as a methodology that measures the cost and performance of cost objects that consumes activities and activities that consumes resources [5]. 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 important use of ABC as a management tool in manufacturing companies, is clearly stated by Drucker, in “*Managing in a Time of Great Change*” [6] as,

“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 (pp. 101)”

The interest in ABC implementation continue to grow since the introduction of the book “*Relevance Lost: The Rise and Fall of Management Accounting*” [7]. However as a strategic tool for improving performance, most manufacturers have not yet given adequate attention to ABC, yet most efforts are still concentrated on enhancing productivity and quality issues, even though cost is becoming more significant factor for manufacturing success [8]. Therefore, the successful implementation of ABC is a significant factor toward manufacturing improvement, similar to other manufacturing tools such as TQM, lean manufacturing or JIT. Furthermore, effort has been made to facilitate an easier ABC implementation and making it as more powerful tool for manufacturers [10].

Some practical issues and challenges have to be addressed [10] to successfully apply ABC. Most problems faced are due to the lack of knowledge, skills and attitudes to carry out ABC [11]. In fact, ABC method is considered the least five selected improvement strategies taken by Korean companies [12]. Issue on ABC implementation and engineers’ competencies is considered as another important point regarding ABC implementations. For example, issue of non-accounting ownership, which can be linked to a reason for the lack of ABC success, has also been addressed. This issue is relevant to engineers who deal with ABC implementation and thus should be equipped with ABC competencies to help them in monitoring or controlling manufacturing costs [13, pp. 146]. The effort to train engineers to gain ABC knowledge is an important task. This leads to the next question, the concern on the effectiveness of this ABC training with desirable outcomes since most of ABC studies were limited to adoption and identifying factors on implementing ABC [11, 20].

2. Review of Literature

2.1. Transfer of training

Most transfer of training studies can be traced to Human Resource and Development (HRD) discipline and very rare study originated from other areas such as educational or technical disciplines. This may explain the slow adaptation of transfer of training studies related to other areas. In addition, transfer of training study based on educational instructional model is still lacking and relatively restricted [14]. In fact, transfer of training study is virtually non-existent particularly as an academic instruction study such as in trying to understand the transfer phenomenon and factors that facilitate transfer [15]. We borrow the HRD definition of transfer as “the application of knowledge, skills and attitudes from training to the job and subsequent maintenance of them over a period of time” [1]. 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 are related to learning and originate from the domain of pedagogical psychology [16]. The generic model of transfer of training, mostly quoted in literature is based on the Baldwin & Ford’s model which was based upon studies in the behavioural sciences, adult education and personnel administration areas [1]. This model views transfer as a system that consisted of (1) training input– trainee characteristics, training design and work environment, (2) training outputs–learning and retention of the training and (3) conditions of transfer–generalization what is learned and maintenance of the transfer behaviour. Later, Kirkpatrick [2] developed the four levels training evaluations framework which evaluated training performance based on four levels, i.e. (1) reaction; (2) knowledge gained or skills acquired; (3) behavioural change; and (4) results. However, some authors are inclined to view the later framework more as taxonomy rather than transfer model. Another transfer model, called Learning Transfer System Inventory (LTSI) was proposed by Holton [17] and claimed to provide more comprehensive view of transfer of training process. Other studies such as Haskell [15,18] proposed transfer of learning taxonomy which categorized transfer into six levels of transfer; (1) nonspecific transfer, (2) application transfer, (3) context transfer, (4) near transfer, (5) far and (6) creative transfer to describes when, how, and where transfer occurs.

Trying to infer what was introduced by Baldwin & Ford’s to Haskell’s taxonomy of transfer, we may be able to categorize the nonspecific transfer, application transfer and context transfer as the training output which concern for learning or initial application of learning including the retention of what has been learned. Accordingly, near transfer, far transfer and creative transfer [18] may be seen from the perspective of the condition of transfer, which concern for generalization and maintenance of what has been learned in classroom setting into the workplace environment. Haskell’s taxonomy of transfer also describes five types of cognitive knowledge to be transferred i.e. (1) declarative knowledge; (2) procedural knowledge; (3) strategic knowledge; (4) conditional knowledge; and (5) theoretical knowledge. Relating to Baldwin and Ford’s model, we noticed that declarative knowledge is the first step to transfer as it is very essential for learning to occur. However others types of cognitive knowledge–procedural, strategic, conditional, and theoretical knowledge are also needed to facilitate transfer process. From the perspective of the mode of transfer, Haskell’s listed down another 14 specific kinds of transfer modes; 1) content-to-content, 2) procedural-to-procedural, 3) declarative-to-procedural, 4) procedural-to-declarative, 5) strategic transfer, 6) conditional transfer, 7) theoretical transfer, 8) general/ nonspecific transfer, 9) literal transfer, 10) vertical transfer, 11) lateral transfer, 12) reverse transfer, 13) proportional transfer and 14) relational transfer.

Referring to literature related to ABC study, we notice that the transfer issue in ABC training has been silent. ABC literature is found to be less emphasis on the educational area of study but has so far been focused more into the area of implementation and diffusion perspective, for example in Cooper and Zmud [19]. However, to understand the transfer of ABC training we may try to relate to the ABC implementation steps and transfer process.

We may view that if participants from ABC training are clearly understood, retained the objectives and ways to implement ABC plus their ability to understand and retain the skills they gain from ABC training, then these are satisfactory indicators of training outcomes [20, 21]. To evaluate transfer of ABC training, we may also view it from the six steps of ABC implementation stages as described by Krumwide [11]—(1) initiation stage, (2) adoption stage; (3) adaptation stage; (4) acceptance stage; (5) reutilization stage and (6) infusion stage. Thus, for the transfer of ABC training, we may use some of indicators for assessing whether transfers are occurring or not, for example, referring to maintenance of transfer, we may identify that through assessing tasks performed by trainees such as keeping the ABC costs data up-to-date, monitoring or evaluating the ABC's project progress or trainees that perform regular review on any process changes within the organization and in marketplace [22, 20].

2.2. Factors influencing transfer of training

There are three categories of factors known that influenced transfer: (1) Trainees characteristics; (2) Training design and (3) Work environment. However, two of these factors (e.g. the characteristics of the trainee and the work environment) may directly influence the transfer [1]. Literature also suggested direct-one way relationships between these factors to the transfer; however it clearly described how these factors interacts to each other in influencing transfer process [23]. It can be summarized that the most heavily research factors were the design factors and limited literature on individual trainees' characteristics and external factors such as environmental [24]. Another model proposed the effect of only two factors - individual factors and environmental factors. Even though Individual trainee factors have been known to influence transfer, however relatively little research works were reported on the role of its key variables in influencing transfer [23].

From categories of trainee characteristics that influencing transfer, it can be classified into six categories: (1) trainee ability, skills and readiness to learn & apply and aptitude; (2) trainee motivation; (3) trainee self-efficacy; (4) trainee job attitudes and commitments; (5) personality, interest, expectations; and (6) goal-orientation [18, 25]. 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. Trainee motivation is proposed to have a direct relationship with (i) continuous-learning culture [29]; (ii) training performance; and (iii) perceived transfer [23, 3, 26]. It 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 [3]. It would also determine whether trainee can fit and adapt with their organization and later transfers the training [27]. Another factor, trainee self-efficacy is related to trainee's own judgment on the ability to perform tasks [27]. It also suggested that trainee who has high level of self-confidence generally performs better.

2.3. The objectives of study

Based on literature, we can summarise that research in transfer of training can be viewed in four major areas of study, namely (1) methodology and measurement of transfer; (2) what and how factors influencing transfer; (3) development of conceptual model for organizing knowledge about transfer; and (4) development of educational technology solutions for transfer. In this study, we try to integrate the first 3 areas i.e. describing transfer process; understanding factors influencing transfer; and developing framework of transfer of ABC training. This study also can be categorized as the exploratory type of research. Using GT approach we have formulate four initial research objectives—first, to explore and describe the nature and extent of transfer for trainees who attend the ABC training; second, to identify and describe how individual factors influence the transfer of ABC training; third, to identify and describe inter-relationship between each key variable of trainees' characteristics in influencing the transfer; and finally, the overall objective of the study—to derive a substantive theory of transfer of ABC training describing how

individual trainee's characteristics influence the transfer of training for engineers in manufacturing organizations. Our focus is on individual trainee characteristics, which we believed to be major factors influencing the transfer of ABC training. In an effort to facilitate the initial phase of the study, we have developed a conceptual framework that integrates most of the relevant factors discussed in literature, specifically from Ford and Baldwin's model, Haskell's taxonomies and ABC framework [1, 17, 19]. The framework provides a general overview on the transfer of training as discussed in literature. However, we are aware not to let our pre-conceived idea influenced by it, thus, it only meant to guide our initial GT study in exploring and understanding the transfer issues and to understand some of major trainee's characteristics that may influence the transfer of ABC training [28].

3. Methodology of Research

3.1. Grounded theory

In this study, we will employ a qualitative research methodology using Grounded Theory (GT) method [29]. GT is an interpretive enquiry method that can be used in research that aims to build a theory [30]. GT method has been argued as a unique research method where theories are generated inductively which are 'grounded' in data and not derived deductively from the existing theory. Based on literature, there are six criteria that differentiates GT from other research methods: (1) qualitative data analysis aims to generate new theories or concepts; (2) generates theories that are empirically "grounded" in data about reality; (3) use of pragmatic data analysis approach; (4) outcomes is based on inequality individuals and dynamic situations; (5) based on open minded study approaches; and (6) allowing flexibility in research designs to cater for unpredicted participants such as sampling size [31]. It should also be noted that in GT data gathering and analyses phases are done concurrently and systematically using constant comparison method. The expected outcome of GT study is an emerging theory, which is derived from data, not from inferences of existing theories. Furthermore, the uniqueness of GT method is that in order to generate a theory, a flexible and creative research process is highly needed [32], whereby revision processes are done simultaneously and also guided by writing of memo during the analysis.

We choose to adopt GT method to describe and develop the interrelationships of factors influencing transfer of ABC training. These factors will be identified and described through generation of codes and categories during the analysis stage [33]. In order to support our GT study, we provide a few justifications. First, this study is categorized as an exploratory type of study, which is suitable for a qualitative research approach employing GT method. Second, it is greatly useful for this type of enquiry that needs to observe and understand phenomena of how the people act and react, take actions or engage in process of transferring what they have learnt within their workplace setting [34]. Third, GT is also a suitable method to investigate meanings the participants assigned to their experiences of their works as they perform their tasks [35]. Fourth, the qualitative study methodology using GT method is suitable to conduct in-depth study using richer set of data from research participants, which could not be provided by a quantitative study method. Fifth, as an exploratory study that focus on a specific group of participants, it is possible to conduct meaningful study on trainees who have undergone ABC training [36].

More importantly, this study is aimed to develop a substantive theory that is 'grounded' in the data as contrasts to quantitative method, which aims to test the existing theory [29]. However, given the complex nature of GT method, novice researchers are advised to focus on generating substantive theory rather formal theories which are developed from many substantive theories [32]. Therefore, GT approach is chosen in this study to construct a substantive theory on transfer of ABC training [37]. Finally, by using GT method, we hope to provide another perspective on the transfer of training studies that will contribute a valuable input to the training body of knowledge as most literature so far employed quantitative research approach i.e. survey method. Thus, GT, as a qualitative method is highly needed for the research in the transfer of ABC training [37].

3.2. GT approaches

The original version of GT introduced by Glaser & Strauss [29], is considered the Classical GT approach. This approach emphasizes on objectivity; external reality and acting as a neutral observer [38, 39]. The GT approach proposed by Strauss & Corbin, is classified as the emerging GT [30, 39]. The later approach assumes researchers having unbiased position, emphasizes on applying prescribed procedures, yet still allows the participants to have their own voices. Another approach proposed by Charmaz, classified as Constructivist GT [41], is based on constructivist perspective, emphasizes on being pragmatist and contemporary constructivist. Table 1 summarized major features of each of these approaches.

Table 1. Some features of GT approaches

Version	Original GT	Glaserian approach	Straussian approach Strauss &	Constructivist GT
Definition	A methodological approach in its own right rather than procedure of qualitative method.	A general methodology of analysis linked with data collection that uses a systematic applied set of methods to generate an inductive theory about substantive area (1992, pp.16)	A qualitative research method that uses a systematic set of procedures to develop an inductively derived grounded theory about a phenomenon (1990, pp. 23)	GT method consist of systematic, yet flexible guidelines for collecting and analyzing qualitative data to construct theories 'grounded' in data themselves.
Emphasis	Important on generating theory based on empirical data rather than literature search	Objectivity, external reality, neutral observers	Unbiased observers, technical procedures, participants' own voice. Focus more on the process and technique of research practice.	Places priority on the phenomenon of study and sees both data and analysis as created from shared experiences and relationships with participants.
Use of literature	Avoid review of literature at the beginning, yet keep an 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 data. However, warned not to become too excited and fail to make own discoveries.	Accepting the use of literature and proposed the construction of GT based on researchers' past and present involvements, interaction and practices.
Coding process	Only emphasis the constant comparative method	Substantive coding (1978), open coding, selective coding (1992), and theoretical coding	Open coding, axial coding, selective coding.	Initial coding, focused coding, theoretical coding; memo writing
Advantage/disadvantage	Provide the originality of GT 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 formalism and inflexibility	A relatively structured approach, still has flexibility.
Remarks	Cautions against dangers of "forcing" data collection and analysis.	Without initial literature search novice researchers may feel difficult to organize their thoughts or narrow the research topics that may results in difficulties in building their own theories.	Using literature may helps researchers to extend, validate and refined knowledge in the field; formulating questions; suggesting theoretical sampling; stimulating question; used as secondary source of data; enhancing sensitivity; make comparisons; and extend a theory.	Constructivism GT approach enhances researchers' own reflective and interpretations and to those of their research participants.

One of the challenges faced by novice researchers who want to adopt GT method is to select a GT approach that suits to their study. In order to help researchers in selecting a suitable GT approach, Tan [32] and Gurds [42], suggested guidelines that can be followed, which normally based on the researchers' own ontological (i.e. perception of knowledge) and epistemological (i.e. the nature of learning) belief that matches to the GT method they are pursuing. Firstly, a researcher should clearly know what is considered as GT method and what is not; secondly, he should clarify various arguments in the literature related to ontological and epistemological viewpoints of these GT approaches; then thirdly, he/she should state clearly the chosen GT method and apply the right terminologies used in their study. For this study, we choose to draw upon the Constructivist GT approach as our main approach. This approach is considered relevant to us as having research background as novice GT researcher [33, 41]. Thus, based on this approach, we employ initial coding; focus coding and theoretical coding during our analysis. In addition, we would also adopt 'paradigm model' approach for seeking a core category. Using the six criteria listed for analysis, it would help us to generate subcategories classifications based on where, when, what, why, how and consequence; and property, dimension and statement and when employing the technique for writing a storyline [30].

3.3. *Field studies*

During field study to gather data, research participants are selected using initial and purposive sampling (i.e. sampling relevant participants that fulfil criteria that will lead to relevant data). They are selected from list of trainees who have attended ABC training series conducted by us. This purposive sampling plan is done immediately after the training program to gather demographic data and reaction to training. Data related to the transfer of training was collected three months after the training date. Data was gathered using semi-structured interview and followed by observations and document inspections at participants' work places that aim to identify transfer status and to investigate factors influencing transfer. During interview session, participants will be interviewed in-depth using an interview guide and recorded instruments. Before interview, each participant received and completed a letter of consent and also received a copy of interview guide. Interview sessions (around 30 minutes each) are aimed to let participants to (1) describe the meanings they assign to their experiences as they go through to transfer what they have learnt in ABC training to their workplace as well as (2) to convey their perception on how and why individual factors affect the process of transfer. In addition, field notes are taken during observations describing how participants act/react, take actions or engage in process of transfer of training received by them. The relevant document related to transfer of training are also inspected to gather additional support to the findings. In addition, open-ended online survey is added to increase the participants' involvement.

As suggested by constant-comparative method procedure [41], data analysis should be done concurrently with data gathering (i.e. immediately after each interview, observation and document inspection and it should be completed before the next interview is performed). However, since this was initial field study and due to participants' work schedule constraint, the first three interviews were conducted in the same day and subsequently analysed in the following days. At the initial phase of the study, we tried to answer the first three research questions; (1) what types of transfer and (2) what kinds of transfer of training experienced by trainees who have attended the ABC training programme? and (3) what individual characteristics of trainee influence transfer?

3.4. *Analysis*

Data analysis using GT starts with coding tasks i.e. converting content into codes after information are transcribed in textual content. Coding is a process of naming/labelling/categorizes on transcribed interview texts and recorded description of field notes made by us during field studies. Analysis must also follow the constant comparative method i.e. comparing incident to incident in data to generate codes and categories. In this study, we

followed three steps coding stages; (1) initial coding (e.g. identifying, naming or labelling, categorizing interview texts); followed by (2) focused coding (e.g. sorting, synthesizing, integrating and diagramming) and ended by (3) theoretical coding (e.g. identifying relationships between categories, conceptualizing codes, integrating the theoretical memos in developing the final theory [41, pp 61]. During the final analysis, reduction process is employed to integrate categories and their properties to generate meaningful concepts. It should be noted that during analysis, theoretical sensitivity aspects must be observed so that to avoid researchers from forcing data to generate theory. Instead, we must let data itself to emerge that finally suggest the theory.

3.4.1. Coding

Coding process is facilitated by a CAQDAS software, namely Atlas.ti 6.1. Initial coding tasks can be done using open coding, in-vivo coding and code-by-list. For example, to answer the first research question, we developed coding list in Atlas.ti that creating codes such as declarative, procedural, strategic, conditional, theoretical/cognitive types of transfers. Similarly, to answer the second research question, we listed codes 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 kinds of transfers. Accordingly, to answer the third research question on what individual characteristics of trainee influence transfer, we listed codes such as cognitive ability, skills, readiness to learn/apply, aptitude (i.e. related to ability category); ability to fit/adapt with organization, perceive relevance of training, choice in attending training, outcome expectancies and job involvement (i.e. related to motivational category); positive judgment and confident (i.e. related to self-efficacy category); job attitude & commitments, personality (interest, expectation) and goal-orientation. Next, to answer the fourth and fifth research questions (which is beyond the discussion in this paper) on how do individual characteristic of training influence transfer and how do they relate to each other in influencing transfer, we plan to search the emerged codes from our field notes and memo writings during coding process to identify and establish the links between these primary factors (such as ability, motivation, self-efficacy, job attitude, personality, goal) to the secondary factors such as learning styles, language barriers, information technology competence that enhance or moderate transfer. Then, we will try to determine the nature of the relationship between the occurring codes such as job attitudes & commitments, personality, interest, expectations, and goal orientation in moderating or enhancing other factors such as motivation to learn, post-training goal, learning styles, language barriers and information technology competence. Finally, to answer research question on how do individual characteristic of trainees and its inter-relationship influence transfer, we will employ theoretical coding procedure that mostly will utilize our memos to generate the concept of transfer relationship that emerges [41].

Since literature are silent on the issue of transfer of ABC training, effort to develop suitable coding for factors influencing transfer of training may need further search together with creative thinking process. For example, when referring to some of factors related to ABC implementation which are identified as external factors, we try to look into the angle on how these factors are directly/indirectly may influence individual factors of participants. Quoting leadership quality as an example, we try to look from various aspect of ABC initiatives performed by trainees in their workplace such as (a) efforts to initiate/introduce ABC as new manufacturing concepts; (b) having assigned to lead an ABC related team project or (c) having appointed as the ‘champion’ in an ABC project. Another example on motivation related factors can also be linked to value and attitude of trainees, such as (a) trainees share similar value and attitude within organization (b) trainees easily get cooperation from organization’s member [21, 43, 20]. In generating codes on the job related factors we try to establish connection through identifying (a) time availability for trainees to implement the transfer of ABC knowledge and skills in their workplace [20]; (b) trainees’ job scope entitle them to obtain relevant information from database in order to conduct detail analysis, which is not normally available to them in the present system [20, 44]. In creating codes for factors relate to trainees’ personnel communication we identify whether trainee receives constant feedback from his/her top management or from

his/her lower level employees on ABC implementation issues [45]. For other codes, which are considered as the secondary factors that may influence individual factors or moderate/enhanced transfer could be related to (i) learning styles [46] (ii) language barriers [47, 48] (iii) information technology competence [49].

3.5. Ensuring trustworthiness

In order to ensure good theories generated as the desired outcomes, a few strategies will be followed. Firstly, to validate the process of data gathering and analysis, the multiple perspectives and methodologies will be conducted by using peer review procedure, where our sample of interview transcripts, coding sheets, and interpretations will be presented to a peer with qualitative research experiences to study and determine whether the process is conducted in an appropriate and systematic manner [50, 51, 52]. Secondly, to establish credibility in the coding process we will show records for constantly comparing the categories that emerged from interviewees' words with our own memos or reflective notes. Thirdly, verification on results obtained will also be done through member checks, i.e. the final findings from the study will be sent to participants asking them to provide confirmation that the overall findings accurately reflected their individual experiences and meanings they try to convey to the researchers [32]. Later, as recommended by some GT authors, we also planned to conduct interview with participants asking them to comments about how well our descriptions and findings match with their experiences [35, 51]. As part of triangulation process, we use multiple data collections and analysis procedures to establish the findings. Thus, in this study, we employ three modes of data collection and analysis. There are (i) in-depth interviews, (ii) field observations and (iii) document inspection.

4. Initial Results

In this paper, we only discuss initial result that was obtained from our initial field study. Following the analysis of transcribe interview texts, observations and document inspections conducted with the first seven participants, we have able to establish initial results of this study. For example, 23 codes related to knowledge transfer were emerged, which were grouped into five categories (i.e. declarative knowledge (4), condition knowledge (3), procedural knowledge (7), strategic knowledge (5) and theoretical knowledge (4). In addition, five codes for level of transfer emerged which were categorised as near transfer – 5 codes (23). Relating to factors influencing transfer, 64 codes were emerged and following the re-coding process, they were grouped into four major categories of positive factors i.e. (i) trainee's motivation – 32 codes (88), (ii) trainee's ability – 12 codes (22), (iii) job attitude & job commitment – 13 codes (26), (vi) self-efficacy – 7 codes (12). In addition, 3 codes (10) that may be related to factors that hinder transfer were also emerged. These initial results of this study will be used to guide subsequent data collection and analysis in the next phase that aimed to identify core categories and to develop the substantive theory of transfer of ABC training, which is the expected final outcome of the study.

5. Conclusions

This paper has presented some issues on transfer of training. It also provides discussions on some methodological issues relating to adopting GT as the research method. It also describes the initial phase of data collection and analysis process with discussions of some initial findings. We would like to point out a few remarks as the reflection of this study. As required by constant comparative method, data analysis needs to be done immediately after each of interview session. Follow-up interview sessions may be needed to obtained more data when necessary. In addition, data collection should also include field notes of observations and other related documents. Finally, developing trust with participants is the most important factor to produce quality data and ensure trustworthiness of the research findings. At the later phase of this study, we expected to provide findings that will add to the existing transfer of training and ABC literature. However, as an exploratory study using relatively

limited sample, the findings of this study are not meant to be generalized into bigger contexts; however it could be transferable to other similar settings. In order to generalize the findings, a statistically validated study may be needed, which are beyond the scope of this study.

References

- [1] Baldwin, T. T. and Ford, J. K. (1988). Transfer of Training: A review and direction for future research. *Personnel Psychology*, 43, pp. 63-105.
- [2] Kirkpatrick, D. (1998). *Evaluating Training Programs: The Four Levels*. San Francisco: Barrett-Koehler Publishers.
- [3] Chiaburu, D. S. (2005). Individual and Contextual Influences on Multiple Dimension of Training Effectiveness. *Journal of European Industrial Training*, 29(8), pp. 604-626.
- [4] Malaysian Government (2005). Ninth Malaysian Plan, Up scaling Manufacturing and Related Services, Nine Malaysia Plan Report, 2006-2010. Government of Malaysia, pp. 529 and pp. 131.
- [5] CAM-I, Consortium of Advanced Management, International: <http://www.cam-i.org>, 30/4/2010).
- [6] Drucker, P. F. (1995). *Managing in a Time of Great Change*. New York: Truman Talley Books/Dutton.
- [7] Johnson, H.T. and Kaplan, R.S. (1987). *Relevance Lost: the Rise and Fall of Management Accounting*. Boston Massachusetts. Harvard Business School Press.
- [8] Evans, J. R., & Lindsay, W. (2002) *The Management and Control of Quality*. Cincinnati, OH: SW.
- [9] Kaplan, R. S., Anderson, S. R. (2007). *Time Driven Activity-Based Costing*. Harvard Business School Press.
- [10] Wan Harun, et. al. (2002). The Study of integration of Activity Based Costing and Six Sigma Implementation. Unpublished Research Report, Universiti Teknologi Malaysia.
- [11] Krumwiede, K. R. (1998). The implementation stages of activity-based costing and the impact of contextual and organizational factors. *Journal of Management Accounting Research* (10), pp. 239.
- [12] Kim, K. Y. and Kim, T. H. (1998). Manufacturing strategy for Korean companies. *International Studies of Management & Organization*, Vol (28), No 4, pp. 5-18.
- [13] Chang, C. M. (2005). *Engineering Management: Challenges in the New Millennium*. Pearson Education, Inc., Upper Saddle River, NJ: Prentice Hall.
- [14] Broad, M. L., & Newstrom, J. W. (1992). *Transfer of Training: Action-Packed Strategies to Ensure High Payoff from Training Investments*. Reading, MA: Addison-Wesley Publishing Company.
- [15] Haskel, E. H. (2001). *Transfer of learning: Cognition, instruction, and reasoning*. Academic Press New York.
- [16] Subedi. (2004). Emerging Trends in Research on Transfer of Training. *Int. Education Journal*, 5(2).
- [17] Holton, E. F. III (1996). The flawed of four level evaluation model. *Human Resource Development Quarterly* 7 (1), pp. 5-21.
- [18] Calais, G. J. (2006). Haskel's Taxonomies of Transfer of Learning: Implications for Classroom Instruction. *National Forum of Applied Educational Research Journal*, 20 (3).
- [19] Cooper, R. and Zmud, R. W. (1990). Information technology implementation research: A Technological diffusion approach. *Management Science* 36 (2), pp. 123-139.
- [20] Sohal A.S. and Chung W.W.C. (1998). Activity based costing in manufacturing: two case studies on implementation. *Integrated Manufacturing Systems*. 9(3), pp. 137-147.
- [21] Londe B.J.L. and Ginter J.L. (1999). A Summary of Activity-Based Costing Best Practices. Ohio State University's Supply Chain Management Research Group.
- [22] Chan M.F.S. et al. (2000). A design of an ABC template for easy assimilation in SME. *Logistics Information Management*, 13(3), pp. 126-137.
- [23] Elangovan, A. R. & Karakowsky, L. (1999). The role of trainee and environmental factors in transfer of training: an exploratory framework. *Leadership & Org. Development Journal* 20(5), pp. 268-275.
- [24] Rummel, G. A., and A. P. Brache. (1990). *Improving Performance—How to Manage the White-Space on the Organization Chart*. San Francisco: Jossey-Bass.
- [25] Tannenbaum, S. I., and Yukl. G. (1999). Training and development in work organization. *Annual Review of Psychology*, 43, pp. 399-441
- [26] Yamnill, S., & McLean, G. N. (2001). Theories Supporting Transfer of Training. *Human, Resource Development Quarterly*, 12(2), pp. 195-208.
- [27] Noe, R. A., and Schmitt, N. (1986). The influence of trainee attitudes on trainee effectiveness: A test of a model. *Personnel Psychology*, 39.
- [28] Wan Harun, et al. (2010). The Integrated model for factors influencing the transfer of ABC training: Critical review and research strategy, RCEE and RHEd 2010, Universiti Teknologi Malaysia.
- [29] Glaser, B., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine.

- [30] Strauss A. & Corbin, J. (1998). *Basic of qualitative research: Techniques and procedures for developing grounded theory* (2nd. Ed.). Thousand Oaks, CA: Sage.
- [31] Bailey, C., et al.(1999). Evaluating qualitative research: dealing with the tension between ‘science’ and ‘creativity’. *Area*, 31(2), pp. 169-183.
- [32] Tan, J. (2010). *Grounded Theory in Practice: issues and discussion for new qualitative researchers*. Journal of Documentation, 66(1) pp. 93-122, Emerald Group Publishing.
- [33] Roffey,, B, H., and Parker L. D. (1997). Methodological themes: back to drawing board: revisiting the grounded theory and everyday accountant’s and manager’s reality. *Accounting, Auditing & Accountability Journal*, 10(2), pp. 212-47.
- [34] Creswell, J. W. (1998). *Qualitative Inquiry and Research Design: Choosing among five traditions*. Sage Publication, California.
- [35] Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage.
- [36] Larney, I., Belle, J. V. (2009). Factors influencing the business value of IS R& D: Preliminary findings from a South African study. Cape Town: University of Cape Town, South Africa Press.
- [37] Saunders, M., Lewis, P., & Thornhill, A.(2003). *Research Methods for Business Students*. Essex: Pearson Education Limited.
- [38] Glaser, B. G. (1978). *Theory of Sensitivity*. Sociology Press, Mill Valley, CA.
- [39] Glaser, B. G. (1992). *Basic Grounded Theory Analysis: Emerging vs Forcing*. Sociology Press, Mill Valley, CA.
- [40] Strauss, A. and Corbin, J. M. (1990). Grounded Theory Research: procedures, canons, and evaluation criteria. *Qualitative Sociology*, 13(1), pp. 3-21.
- [41] Charmaz, K. (2006). *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis*. Sage, London.
- [42] Gurd’s, B. (2008). Remaining consistent with method? An analysis of grounded theory research in accounting. *Qualitative Research in Accounting & Management*, 5(2), pp. 123-128.
- [43] Somers T.M.,Nelson K.(2001).The Impact of Critical Success Factors across the Stages of Enterprise Resource Planning Implementations. 34th Hawaii Int. Conf. on System Sciences IEEE.
- [44] Stapleton D., Pati S., Beach E. & Julmanichoti P. (2004). Activity-based costing for logistics and marketing. *Business Process Management Journal*, 10(5), pp. 584-597.
- [45] Gunasekaran A.(1999). A framework for the design and audit of an activity-based costing system. *Managerial Auditing Journal*, 14(3), pp. 118-126.
- [46] Hofstede, (1984). The culture relativity of the quality of life concept. *Academy of management Review*, 9(3), pp 389-398.
- [47] Burnett, R. S. (1990). Ni Zao : Good Morning, China. *Business Horizons*, 33, pp. 65-71.
- [48] Rimalower, G. P. (1992). *Training and Development*, 46(2), pp.71-75.
- [49] Lertwongsatien, C. (2000). An empirical investigation of the strategic implications of information systems resources and capabilities. Unpublished PhD dissertation. Renssealaer Polytechnic Institute.
- [50] Glesne, C., & Peshkin, A. (1992). *Becoming qualitative researchers: An introduction*. White Plains, NY: Longman.
- [51] Guba, E. G., & Lincoln, Y. S. (1982). Epistemological and methodological bases of naturalistic inquiry. *Educational Communication & Technology Journal*, 30, pp. 233-252.
- [52] Patton, M. Q. (2002). *Qualitative research and evaluation methods* (2nd ed.). Newbury Park, CA: Sage.