

# A Comparative Analysis on Employee Training: Competency-based vs Traditional

James MAUNSELL-TERRY<sup>1</sup>, Nazım TAŞKIN<sup>2</sup>

## ABSTRACT

The study examines competency-based and traditional based training programs, within the context of their effectiveness and impact on employee performance outcomes. Results found that employers have recognised the weakness of traditional training formats, with some placing a higher value on experience and proof of performance abilities, over academic and professional qualifications. The most prominent finding was that training formats must contain both traditional and competency-based elements. These two factors are in turn linked to directly impacting employee performance, and are suggested as being a more accurate longer term measure. The interviews revealed that employees consider that performance can be linked to and measured by a number of factors including productivity output, staff motivation, engagement, job satisfaction, retention, and customer satisfaction.

**Keywords:** Employee Training, Traditional Training, Competency-Based Training, Employee Performance, Qualitative.

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## INTRODUCTION

Employers are essentially concerned about improving employee performance and raising customer satisfaction (Liao & Chuang, 2004). Numerous studies have been carried out in order to define the key elements that determine effective performance (Ittner & Larker, 1998). To date, experts commonly point out factors such as effective training as the main driver of improving employee performance (Gruman & Saks, 2011). However, the question arises whether training can indeed be effective, and result in performance improvement (Morey et al., 2002).

The essentials of effective training seem to be evident. There is a wide scope of studies describing how to develop effective training programs for different groups of learners (Bartel, 1994; J. Brown, 2002). As a result, employees are generally expected to be trained to enhance their teamwork skills and professionalism, helping them to set long-term goals, organise their workflow in an appropriate manner, and overcome emerging challenges (Kozlowski et al., 2001)

Nowadays, it would be unusual to find a company of reasonable size that would not provide its employees with the relevant training (Cable & Graham, 2000). However, the positive change as the result of such training can be observed only in some of them, therefore it would be rational to suggest that some training strategies contain particular flaws due to which employees fail to show a substantial progress in their performance. Deming and Orsini (2013) explain this phenomenon by the fact that many companies neglect the practical side of the provided training. Thus, the employees learn a lot of valuable information when undertaking corporate education, and may even show high exam results. However, when the training is finally completed, employees have little idea about how the acquired knowledge can be applied in a practical aspect of their respective operations, and they continue to use the familiar techniques and processes (Chen & Huang, 2009). The received training turns out to be ineffective (Bunch, 2007). Moreover, it is hard to measure its value – there are no practical outcomes that can be regarded as the result of the training, as long as employees do not apply the acquired knowledge to their work (Bunch, 2007).

<sup>1</sup> Digmax Equipment Limited, Auckland, New Zealand, jamesmaunsell@gmail.com

<sup>2</sup> Boğaziçi Üniversitesi Yönetim Bilişim Sistemleri Bölümü Hisar Kampüsü B Blok, HKB217, 34342 - Bebek İstanbul, nazim.taskin@boun.edu.tr

In this view, it is critical to differentiate between such fundamental training formats as traditional and competency-based. While the former format resembles that of a classic lecture or seminar during which the information is translated through a one-way interaction, the latter entails a wide scope of practice-based tasks and role-modeling activities (Huang, 2001; Naquin & Holton, 2003). Each of them has its own benefits and flaws and it seems to be important to perform a detailed comparison of these training formats in order to develop a clear idea of the essentials of effective training.

This exploratory research paper aims to examine the essentials of effective training in order to understand how it can be applied to improving management outcomes. It is considered that it is the practical aspect of training that makes it productive, and enables employees to enhance the quality of their performance. Accordingly, the research questions of the study are: i) What are the essentials of a training program?, and ii) How can effective training improve management outcomes?

The foremost motivation to carry out the exploratory research is to expand on the existing knowledge about employee training in regards to traditional and competency-based. The problem of employee education is widely discussed in the expert community (Baldwin, Pierce, Joines, & Farouk 2011; Bunch, 2007; Grossman & Salas, 2011). This research paper is particularly interested in examining training from the standpoint of the practical value, in that employee training implies for performance quality. Most importantly, it appears to be useful to understand the core factors that underpin the training failures, as it seems to be unclear why extensive courses and seminars tend to have little or no impact on performance outcomes, and it also seems to be particularly surprising why some employees that show outstanding achievements in the course of training, can fail to show equally successful results in the real-life environment (Brinkerhoff, 2005). Therefore, the objective of the research is to help to answer these questions, and acquire a better understanding of the essentials of effective training. This study differs from previous studies as it offers a firm conceptual framework for effective training that incorporates all aspects.

## LITERATURE REVIEW

The idea of investing in the 'human capital' is certainly not a novelty. Machin and Wilkinson (1995) would already describe the economic benefits of employee training in the mid-90s. At that period, the main focus was put on the importance of the so-called lifelong training. This

idea was initially adopted from the education field where it would translate a message that people should not stop their education after finishing schools and universities, but should enhance their development throughout their entire life (Pépin, 2007). While being concise and eligible in the frame of education curriculum, the idea of the lifelong training was not clearly shaped at the early stages of its application in regard to the job context. As such, some experts would associate it with continual development that was obligatory for outcome improvement (Scottish Borders Council, 2013), while others would regard the concept of lifelong training as an appeal for professional development which signified promotion to a higher job position (Tight, 1998). Despite the lack of unity in the idea interpretation, the lifelong training would soon turn into a strategic objective that most companies would integrate into their respective policies (Schuller & Watson, 2009).

However, within only a decade, the interpretation of the lifelong training notion changes significantly. It is interesting to note that the change of the training approach in the job context is closely aligned to those in the educational sector (Hargreaves, 2005). To date, the expert community tends to emphasise the change in the education purpose, for example, its shift to improving students' applied knowledge rather than their theoretical competence. In other words, competence-based training seems to be gaining its competitive advantage rapidly. As such, Harvey (2000, p. 3) speaks about "training graduates for jobs rather than improving their minds". The author points out several trends that should be essentially considered to develop a concise idea of effective education today. First and foremost, he notes that employees are expected to be more flexible. Thus, many companies tend to de-layer their hierarchical structures, eliminating specific positions and shifting to wider portfolios. It means that professional development acquires new implications, such as the competency-based element that is an indication to the successful outcomes (Collin, Van der Heijden, & Lewis, 2012). Second, Harvey (2000) points out that new working patterns, such as freelance and short-term contractors appear on the market, changing the common interpretation of the concept of a graduate job. The appearance of new working patterns requires a change in the training patterns as well (Gherardi, 2001).

The changes of the training purposes and formats are likewise associated with a shift in market demands. Harvey (2000) points out the reduction of the in-house training time, as modern employees are expected to be

already trained to perform the required tasks, providing swift integration into the working environment. For this reason, employers are less concerned about the formal degree of an applicant; instead, they pay more attention to the practical skills and previous experience (Ash, 2006).

Additionally, it seems that personal attributes play a more critical role than the specific knowledge of a graduate in the recruitment process. Harvey (2000, p. 8) explains that the former mainly include "intellect, knowledge (in some cases), and a willingness and ability to learn and continue learning", as well as a wide range of the so-called 'self-skills' that imply the ability to motivate, promote and encourage oneself. Due to the rapid changes in the modern market, experts are particularly concerned about defining the set of most critical skills that employees are expected to have (W. A. Brown, 2007).

### **Competency-Based Training Opposed to Traditional or Theoretical Training**

The nature of competency-based training can be better understood through its contrasting characteristics to the traditional forms of training. There are several distinguishing features that should be considered while evaluating what form of training a particular company uses. First, Naquin and Holton (2003) explain that the key characteristic of competency-based training is that it comprises a large variety of problem-solving tasks. Therefore, employees are required to apply the acquired knowledge during the process of training. On the contrary, with traditional training, it is intended that employees are provided with the relevant information that they are then expected to apply to their work upon completion of the classes (D. Dubois & Rothwell, 2004).

Second, the key aim of competency-based training resides in eliminating the gap between theoretical knowledge and practice (ten Cate & Scheele, 2007). Whereas traditional training targets to enhance employee theoretical knowledge by providing them with new information to learn. In other words, competency-based training is not essentially associated with new knowledge. On the contrary, it might help employees to acquire a better understanding of the already learned information (D. Dubois & Rothwell, 2004).

Third, competency-based training implies an active involvement on the part of employees, whereas, in traditional training, employees might play the role of passive listeners. Therefore, the format of competency-based training requires their intense participation (Naquin & Holton, 2003). Thus competency-based

training has a different design - it contains a lot of practical tasks and the minimum of lecture-format activity. From this perspective, its advantage seems to be evident since employees are required to apply the received knowledge to task resolution, at least in the frame of the hypothetically constructed classroom context.

Another difference between competency-based training and the formal forms of education, is that the former is more powerful in terms of changing ineffective behavior patterns. As such, Ricciardi (2005) describes the research that targeted to evaluate the impact of competency-based training on employees from an HR department. The research revealed that the selected training format has significantly helped to reshape employee behavior in a positive manner. The author explains this occurrence by the fact that competency-based training involves role modeling tasks, during which employees are asked to resolve a hypothetical problem, performing the role of a manager, a subordinate, or a client. Role modeling allows the employees to observe the situation from beyond and to draw the relevant conclusions. Traditional education, by its nature, has fewer options to influence employee behavior due to its narrative-based format (Aswathappa, 2005).

Finally, competency-based training offers more prospects for self-assessment. As a rule, the traditional form of training involves several types of assessment. First and foremost, trainers and supervisors try to assess the level of employee satisfaction. The general process is to ask the attendees whether they have enjoyed and found value in the applicable course or training. According to Goldfinch and Wallis (2009), it is rational to presume employees commonly provide positive responses, as they perceive a survey as a formal procedure. Another way of assessing the training outcomes of the traditional model is a test. Employees might be offered to complete a particular test to evidence the acquired knowledge. On the whole, it is highly problematic to design a consistent model that would ensure an accurate assessment of the training results (Arthur Jr, Bennett Jr, Edens, & Bell, 2003). From this perspective, competency-based training appears to be more beneficial. As such, its outcomes are commonly associated with some practical improvements such as the reduction of the client waiting time, or the optimisation of the data management process. Additionally, due to the diversity of role modeling activities and practical training tasks, employees receive a chance to evaluate their progress on their own. Therefore, they learn to assess their skills and the outcomes of their application to problem-solving (Naquin & Holton, 2003).

## **Competency-based Training and Employee Performance**

Williams (2002) regards employee performance as the manner employees fulfil their job responsibilities or, putting it more simply, as the way they work. According to Kirkpatrick (2006), there are two principal ways of raising the quality of employee performance: rewards, or appraisals and coaching. The question consequently arises, regarding how the positive improvement of employee performance can be evaluated. It is therefore highly important to define what changes in the employee performance will be further interpreted as positive outcomes of the competency-based training.

The review of the relevant literature shows that competency-based training impacts employee performance significantly, in varying aspects. In the frame of this research paper, employee performance will be interpreted as the work related training, and associated 'emotion' based variables that impact on an employee's abilities to assist an organisation to attain its objectives (Wilson, Bennett Jr, Gibson, & Alliger, 2012). D. Dubois and Rothwell (2004) point out that the influence of competency-based training on employee performance is more powerful than that of traditional training. The authors explain it by the fact that competency-based training has a more consistent design that allows developing effective outcome evaluation criteria. In other words, competency-based training leads to the optimisation of the common workflow – employees learn to perform the familiar tasks in a more prompt and effective manner. Naquin and Holton (2003) likewise note that employees' performance becomes more conscious. In other words, employees acquire the understanding of how to meet the target standards, rather than merely get acquainted with what these standards are.

Another impact that competency-based training has on employee performance resides in the positive reinforcement that it implies. As such, D. Dubois and Rothwell (2004) note that competency-based training helps to raise employees' self-confidence. The author explains it by the fact that practical training allows employees to test their abilities and skills, learn to act independently and to manage challenging situations. The successful completion of a training task naturally triggers an employee's motivation to reach the same success in the real-life environment.

Research likewise reveals that competency-based training is particularly valuable for managerial education. Dainty, Cheng, and Moore (2004) explain

it by the fact that, as a rule, the scope of managerial responsibilities is defined less precisely than the scope of the responsibilities other specialists are supposed to fulfil. Therefore, competency-based training assists employees in aligning their vision of the target outcomes to a particular action strategy.

The review of the relevant literature has revealed that competency-based training appears to offer a wide range of advantages over the traditional forms of education. The literature reviewed identified a large number of scientific research evidencing the positive effect that competency-based training has on employee performance. As such, it helps to align the theoretical knowledge to practice, as well as to raise the employee inclusion in the working process. Therefore, it is rational to consider that competency-based training outcomes are more positive and significant than those associated with traditional or theoretical training. Table 1 provides a summary of comparative analysis of competency-based training versus traditional training.

## **METHODS**

The study aims to examine how the essentials of the effective training can improve management outcomes such as employee performance. As this objective requires in depth examination, the research adapted a qualitative design. The collection of the relevant data is carried out by standardised open-ended interviews (Gall, Gall, and Borg, 2003, cited in Turner III, 2010; Bryman & Bell, 2015), where each interview contains the same semi-structured questions. In the course of this study, two methods of interview participant recruitment were used. The first method was the snowball method (Bryman & Bell, 2015). The research participants were also recruited through a social network, LinkedIn. Barker, Barker, and Pinard (2011) advise that social platforms have a number of benefits. The main benefit is that, they allow ensuring the appropriateness of the target participant since there is an access to the personal data such as occupation, position, therefore once again falling under the 'criterion sampling' approach (Bryman & Bell, 2015; Creswell, 2012; Ritchie, Lewis, McNaughton, & Ormston, 2014).

The choice of participants for the research pool was based on a non-probability method of purposive sampling (Bryman & Bell, 2015; Creswell, 2012; DiCicco-Bloom & Crabtree, 2006; Ritchie et al., 2014), of which several principles are commonly employed in the context of a qualitative study. First and foremost, the key criterion for determining a participant's appropriateness for the study was ensuring the participant held the

**Table 1.** A comparative analysis of competency-based training versus traditional training

	<b>Competency-based training</b>	<b>Traditional training</b>
Training Program	The program content might be composed of both new information and the common knowledge. The main target is to teach employees to apply the knowledge to the resolution of practical tasks (ten Cate & Scheele, 2007).	The program content involves either new information or a new perspective on the common knowledge. The main target is to get employees acquainted with the offered data (D. Dubois & Rothwell, 2004).
Training Format	The training format involves problem-solving activities and a large variety of role-modeling tasks (Naquin & Holton, 2003).	The training has a narrative-based format which involves lectures and seminars given by either corporate leaders or external specialists (Huang, 2001).
Employee Involvement	The training format implies intense employee involvement – they are supposed to solve hypothetical problems, suggest alternative solutions, and display their active and creative attitude (Naquin & Holton, 2003)	In the frame of traditional training, employees play the role of passive listeners most of the time. Their involvement is limited to the participation in final discussions held after a lecture (Freeman, 2016).
Assessment	The training format implies a large scope of self-assessment practices – employees can evaluate how well they manage to apply their knowledge to the solution of particular tasks (Goldfinch & Wallis, 2009).	The assessment is mainly carried out in the form of tests and surveys. Employees do not have any chance to assess their progress themselves (Goldfinch & Wallis, 2009).
Performance-Related Value	The training helps to reshape employee performance in a more effective manner. Depending on the training target, its value can be measured through such variables as the customers' feedback, the frequency of operational mistakes, etc. (Ricciardi, 2005).	The training does not provide any practical guidelines; therefore, it is problematic to evaluate whether employees use the knowledge they acquired (Aswathappa, 2005).

relevant experience (Bryman & Bell, 2015; Creswell, 2012; Seidman, 2013), to ensure the participants will "provide the most credible information to the study" (Turner III, 2010, p. 757). The major inclusion criterion required that a research participant would have experience of working with both competency-based and traditional forms of training. Therefore, it was considered rationale to interview employees who have the experience of working with both types of training. This selection method is referred to as 'criterion sampling' (Bryman & Bell, 2015; Creswell, 2012; Ritchie et al., 2014). The applied focus of the selection criteria methodology expedited the selection process, and harmonised with the purpose of capturing rich, pertinent data. Second, it

was considered important that a participant be available for the communication form selected for the interview. Participants were interviewed over Skype. Some of the positive elements of a Skype interview include: Firstly, it allows a distant communication facilitating access to a larger number of participants. Second, despite the distant format, it still allows for a visual contact which is positive from both psychological and interpretation perspectives (Cassell, 2015). Third, the convenience aspect may assist to encourage participants (Bryman & Bell, 2015). Lastly, in comparison to in-person interviews, the interviewer's ability to build rapport is not compromised (Bryman & Bell, 2015).

All the participants received both practical and theoretical training. These participants were working in management positions in their organizations. They previously worked on roles like technicians, service providers, etc. and then moved into sales role and eventually management roles. Age of participants varied between 24 years old and 45 years old. Among ten participants, six were identified as male and four were identified as female.

The interview questions were developed based on the existing literature and the main research question underpinning this study. During the data collection process, ten semi-structured interviews were conducted. In qualitative studies, instead of focusing on sample size, researchers (Ragin & Becker, 1992; Baker & Edwards, 2012) argue that saturation should be considered as the major decision point. Saturation is reached when there is no new information coming out during the interviews from the expert participants (Glaser & Strauss, 1967). In general the saturation is reached between 10 to 30 interviews, depending on how long the interviews, context, and the belief that researcher have regarding this objective (Thomson, 2004 as cited in Marshall, Cardon, Poddar, & Fontenot, 2013). In this study, the saturation was reached at 10th interview. Each interview lasted about 30 minutes. The analysis of the collected data was performed relying on the frame of a thematic approach (Barker et al., 2011; Bryman & Bell, 2015), utilising open coding, displayed in a matrix format (Bryman & Bell, 2015). This approach allows understanding participants' view on the problem and developing a consistent theory based on the analysis of the collected data (A. Dubois & Gadde, 2002; King & Horrocks, 2010). The method involves transcribing the interview data, and taking an inductive approach to identifying first order (participant-centric) recurring themes and sub-themes, grouping these into categories, and then coding these categories in a second order (researcher-centric) approach, under the relevant concepts (Bryman & Bell, 2015; Braun & Clarke, 2006). This qualitative data was then entered into a framework, being a matrix type framework (Bryman & Bell, 2015). With thematic analysis, meaningful interpretations emerge from the data. This process is performed in an iterative approach to find out the correct and relevant information (Braun & Clarke, 2022).

Each code was then noted where it occurred throughout each transcript, and a tally of each code recorded on the matrix, therefore enabling "quantifying qualitative data" (Mills, Durepos, & Wiebe, 2010, p. 926). The main concepts were already established from the literature review,

being the training program, training format, employee involvement, assessment, and performance-related value. These were the pre-analytical, deductive orientated concepts, and used as the initial matrix framework headings (Bryman & Bell, 2015). Relating themes under each concept were then identified, grouped into their relative categories, and coded. Importantly, as well as the deductive concepts, inductive analysis of the interview data led to the establishment of additional concepts, themes and sub-themes, which were added to the matrix. On the whole, the data analysis procedure was performed in several steps (Bryman & Bell, 2015; Kvæle & Brinkmann, 2009).

## FINDINGS

The research questions examined in the study were i) What are the essentials of a training program?, and ii) How can effective training improve management outcomes? Interview questions were developed considering these questions and data were collected accordingly. The interview results (see Table 2) clearly showed a preference for competency-based training, and was considered the most effective (9/10 interviewees). Key attributes included maintaining strong focus and engagement (8/10 interviewees), embedding new learning more effectively (6/10 interviewees), adjusting to peoples abilities, needs, immediate correction of errors, and interaction with others (6/10 interviewees).

*"Competency-based training has a lot more value, has more interaction, you can identify easier if somebody is not keeping up, not absorbing the information, or requires extra help, you can acknowledge that straight away of ideas and concepts being learned and understood. Traditional training you don't get as much interaction, you don't get as much direct feedback on what's going on." (Participant1).*

Perceived weaknesses of competency-based training overall were few, and were generally overcome with an addition of some traditional training methods, such as to provide context and background to the learnings (5/10 interviewees), in order for the trainee to understand why something was completed in a certain way.

*"I think it's [competency-based] a good form of training but I don't think it should be the only form of training, I think there should be a number of elements in training somebody. I think it's good that with having a narrative element, you understand the context of why you are doing things and it might*

*give you a bit more of a deeper understanding, but you definitely need that practical application of being able to be competent at completing whatever it is that you've been taught."*

Traditional training is directly linked to narrative-based communication (9/10 interviewees), holding no practice-based elements. Interviewee examples included university lectures, PowerPoint presentations, manuals, textbooks, and conferences. Most interviewees considered traditional training was not effective on its own (9/10 interviewees), and only effective when used to provide a contextual framework for competency-based training (8/10 interviewees). Six out of ten interviewees identified the main weaknesses as holding a limited attention span of audiences, lack of buy-in, less adaptable to different learning styles, and also a lack of awareness if the communicated messages are received or absorbed effectively (5/10 interviewees).

*"I did first year of Bachelor of Business, which was narrative-based training, classroom training, it didn't work for me. I completed a year of that and pulled out basically at this point, as I couldn't absorb the information. You lose focus, it's not directed at you personally, it doesn't match your learning needs or your learning abilities. Just like everybody learns in different ways so you're delivering the same message to thirty people or a hundred people in Lecture Theater and not everybody is taking it on board and in my experience I didn't take it on board. I learned bits from it but certainly nowhere near from the practice-based training or direct hands on training that I received later in my life. It was far less effective." (Participant 2).*

Most interviewees acknowledge that the effectiveness of training is only as effective as how well the training is delivered (4/10 interviewees). One interviewee mentioned their traditional training past as a "death by Powerpoint" experience:

*"You can be at training which you can call death by PowerPoint, where by the end of the day, you are a blathering idiot, you've lost all concentration."*

For most of the interviewees (9/10 interviewees), learning solely through traditional training was not an effective method of training on its own, although its strengths include:

- Offering context, background, and meaning to a situation or practice (5/10 interviewees)

- Providing a theoretical framework for a practice-based situation (3/10 interviewees)
- Communicating a consistent message to everyone (1/10 interviewees)

Our findings regarding both competency-based training and traditional training can be grouped under four categories. The categories or main themes emerged from the findings include training program or format, employee involvement, assessment, and performance-related value. As seen in Table 2, the two types of trainings demonstrate different characteristics and features on four of these main categories. For example, while competency-based training emphasizes two-way interaction, traditional training values one-dimensional training more. Similarly, while competency-based training focuses more on individuals during the trainings and give high importance to problem solving, traditional training does not give as much importance to individual and neglects practical aspects of the training from the training format perspective.

From the employee involvement perspective, during the competency-based training, engagement is enhanced as a result of two-way interaction between the trainee and trainer. On the other hand, traditional training does not provide a clear picture on how long students kept engaged. "Involvement" is defined as an important consideration of the context of training. Involvement can be described as just 'turning up' to training, or involvement can be defined as 'active engagement' in the training process. Being open to learning and engaged in the learning process is deemed to have more positive outcomes, than with an employee merely expected to 'turn up' for training (4/10 interviewees).

*"Unless you are engaged and open and receptive you are not going to learn anything. So even if you are - if it's narrative-based you've still got to be there and listen and be engaged otherwise it's just white noise."*

Traditional training was commonly associated with 'one way' interaction, where the tutor does all the talking, and the trainee just listens (8/10 interviewees). Two of the interviewees note that a 'good' tutor will create trainee involvement by initiating debate and discussion. A few interviewees mentioned the importance of a 'safe' environment for training to happen in, whether ongoing, or on the job, or within one-off training sessions (3/10 interviewees). These interviewees felt that being able to ask questions, self-assess honestly if things were not

**Table 2.** Summary of the themes in the frame of the four main concepts

	Competency-based training	Traditional training
Training program/ format	Hands on Two-way interaction Focused on the individual Effective once combined with traditional Problem-solving and role modeling activities Provides learners with a how-to-act scenario Offers personal experience instead of listening to someone else's achievements in the field Enhanced speed of learning Feeling of independence and confidence Provides a chance to observe other people training (Involves both mentoring and being mentored)	Narrative-based One-dimensional Lack of individual approach (weak instructor-student interaction) Can be compared with university lectures and seminars Neglects the practical aspects critical for effective performance (exemplified by technicians' training) Provides some context around the explored theme Helps to acquire a deeper understanding of the subject; Involves valuable elements of experience sharing Offers more opportunities for an open discussion Offers more opportunities for mastering the already acquired skills Feeling of confidence Effective once accompanied by regular tests and assessments
Employee involvement	Engagement is enhanced through the two-way interaction Empirical experience enhances the general buy-in Enables to complete real work tasks without the real time pressure	It is hard to understand how long students can remain engaged in the lecture/seminar
Assessment	Natural, unconscious self-assessment Facilitates the assessment process: the instructor can easily track one's progress Direct feedback Problem-solving tasks entail a chance for self-assessment; Teach to respond adequately to criticism	Self-assessment through writing a self-assessment paper after the course completion Lack of verification that the communicated message has been received Test/exam
Performance-related value	High performance-related value in telecommunications and franchising fast food industry Positive outcomes: increased satisfaction, engagement, and productivity Improved performance is determined by the fact that this training helps to determine the most problematic areas of an employee performance and address them selectively	Hard to evaluate to what extent improved performance is the outcome of the traditional training Short-term effect Unit standards studies The value is largely determined by the motivation

going well, and openly discuss issues was all seen to increase engagement with the training, and improve the effectiveness of the training overall.

From assessment dimension, the two training types show differences as well. With the competency-based training, the training and the assessment appear as more natural and as part of learning. Instructors can easily track how students progress. Instructors give direct feedback to students as they teach them how to respond adequately. On the other hand with the traditional training, instructors usually rely mostly on test or exam type of assessments. Verification of the communicated message from instructors to students is less than competency-based training. Self-assessment is viewed by most (8/10 interviewees) to be a key part of an engaged training program, and is also seen to be more related to competency-based training than traditional training, due to the interactive nature of competency-based training (8/10 interviewees).

*"The tutor can observe the trainee is competent in putting into practice what they have learnt."*

Self-assessment also requires the employees to honestly review and understand their personal barriers or shortcomings. However, third party assessment was also identified as of key importance, to ensure that the correct learnings have been absorbed effectively (8/10 interviewees).

When self-assessment is the process of evaluating one's own efficiency and competency while completing a particular task, all the interviewees mention that this type of self-assessment is important, because it helps employees to define which tasks they are able to complete, and which areas need to be improved. All the interviewees mentioned that this self-assessment helps to enhance employees' confidence in their own abilities, once they learn to cope with a particular assignment. Furthermore, the majority of interviewees associate this type of self-assessment with the competency-based training format (8/10 Interviewees).

*"By actually completing tasks on the field or in the practice environment, whether it's problem solving or role modeling. They actually know themselves, before they've undertaken to complete the task, in a pressure free training environment so they can self-assess whether they have undertaken them successfully, or they cannot complete that task or training exercise."*

A few interviewees mentioned that self-assessment during competency-based training was as important as the training itself (3/10 interviewees), for the value of the feedback, observation, and ongoing employee experience.

For traditional training, assessment is normally via a test or a quiz (all interviewees), and there is some question as to what this truly measures: achievement or competency (3/10 interviewees), or just ability to have good short-term memory in preparation for the test (6/10 interviewees). One interviewee argues that a traditional test is still the best indicator of the learner's success. This is in contrast to competency-based training, where trainers continually assess a trainee's development, as well as having the trainee self-assess their own progress (8/10 interviewees).

*"There's two parts of it, so there's obviously self-assessment by participant's view point of the training, and whether they've completed it successfully matched against the trainer's viewpoint of whether they have completed it successfully. So self-assessment makes the participant actually go back and review themselves whether they have done it, do they understand it? And they're verifying and acknowledging that yes they can complete this task, and they have successfully undertaken the training, and they obviously still have to be verified by a third party or the trainer."*

Finally, from the performance-related value perspective, competency-based training helps employees to determine the problematic areas to be improved and eventually provides increased satisfaction, engagement and productivity in general. With traditional training, the effects are usually considered to be short-term and most of the time hard to evaluate the increase in performance. Measurement of training outcomes includes both quantifiable and less direct or immediately measurable results including:

- Productivity outputs (8/10 interviewees)
- Staff engagement levels (6/10 interviewees)
- Staff satisfaction surveys (6/10 interviewees)
- Staff turnover (4/10 interviewees)

Interviewees considered ongoing assessment and competency-based training to be a strong positive for employees, as they were seen to be more confident in their jobs after the training and they were more engaged overall with the work environment (6/10 interviewees).

*"Gives the employee the confidence to know that they can complete the task before they have to actually complete it in a real work or real business situations."*

One interviewee commented that what is important from the training is not knowledge alone, but both ability and knowledge:

*"...better qualification scores ...didn't make them a better employee at the end of the day."*

One of the interviewees would align the performance-related value with the fact that competency-based training helps to target the most problematic areas of an employee's performance, therefore suggesting that there should be a special individual program designed on the basis of these results, aimed at helping the employee to improve their professionalism.

Interestingly, the interviewees express different views on the longevity of the effectiveness of both training formats in regard to performance. There is a common view that competency-based training is more productive in a long-term perspective – once an employee acquires a skill, he or she is hardly likely to lose it (7/10 interviewees), contrary to the theoretical material from the traditional training which is apt to be forgotten within a few months.

*"I was never one to be able to hold my concentration long enough for long lectures and I would walk out only remembering probably only last thirty minutes or the first thirty minutes. Whereas with the competency one I felt like because you - it becomes interactive through participative involvement, it embeds more and it sinks in what you are actually learning and sometimes its hidden messages."*

Three interviewees believe that traditional training is more effective in a long-term perspective, arguing that the learned theory can always be applied to the requirement of a new skill at a much later date, and in a much broader context, so that the timeline and contextual scope offered by the traditional training is therefore less limited, than a task orientated training format.

It is also interesting to note that half of the interviewees argue that the performance-related value depends on individual characteristics, being the individual's preferable learning style. The interviewees believe that both types of training can lead to the performance improvement, once the manager defines which format is more appropriate for a particular employee.

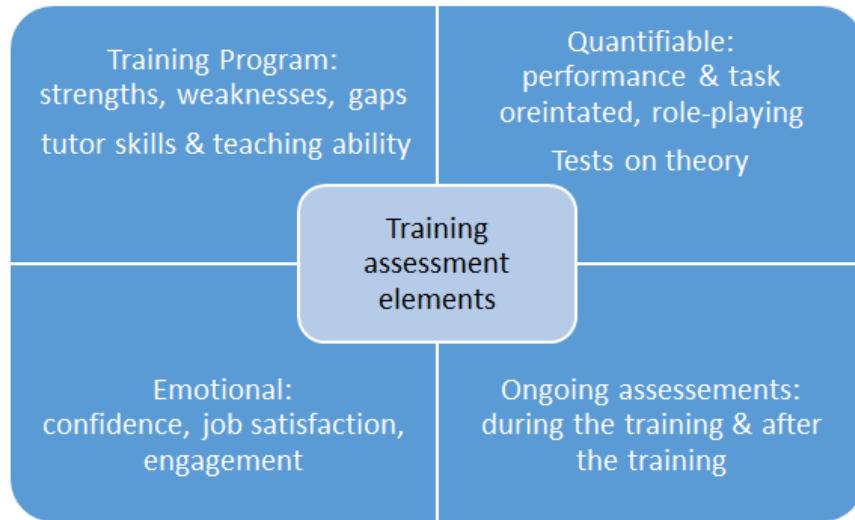
## DISCUSSION

The examined literature led to the reasoning that there is a need for selecting a more appropriate training format, and this format according to many authors, is the competency-based training (Baldwin et al., 2011; Goldfinch & Wallis, 2009; Kirkpatrick, 2006; Ricciardi, 2005). However, while the interviewees had a clear preference for competency-based training due to engagement and universality, the results also illustrated these training formats cannot substitute one another, and in fact indicate that both formats are required in order for training to be effective. Based on the findings, the discussion can be grouped based on the main themes identified in the results of the study.

*Universality:* Competency-based training was clearly considered more effective by the interviewees, and these views are strongly supported by the findings of the numerous academic research mentioned. The academic literature supporting competency-based training, was ultimately outcome focused, i.e. the ability to apply the knowledge in a practical format. Indeed, initially, this was the first and foremost reason provided by the interviewees.

However, what in fact became evident, is that training should contain both elements. Traditional training needs to contain practice-based elements to show trainees how to implement the theory into real life situations. Competency-based formats need to contain theory in order to provide the context and the 'why', for trainee understanding. Indeed, ten Cate and Scheele (2007) find that the goal of competency-based training is to remove the gap between the two formats, in effect combining the two. Therefore, the conclusion is that one format does not replace the other, neither format is universal, and neither can be successfully argued as being better. A combination is the best format. This conclusion is further cemented by the interviewees, and also aligned with findings of Mulcahy (2000), who while speaking of the advantages and preferences of one type, would then cite the importance of the inclusion of the other type.

Throughout the rest of the interview questions, and by further probing into what deemed the respective format being discussed as effective, uncovered deeper, interlinking reasons, such as the immediate feedback for improvements and corrections, the importance of continuous interaction and engagement throughout the training program, and knowledge retention.



**Figure 1.** Training assessment elements

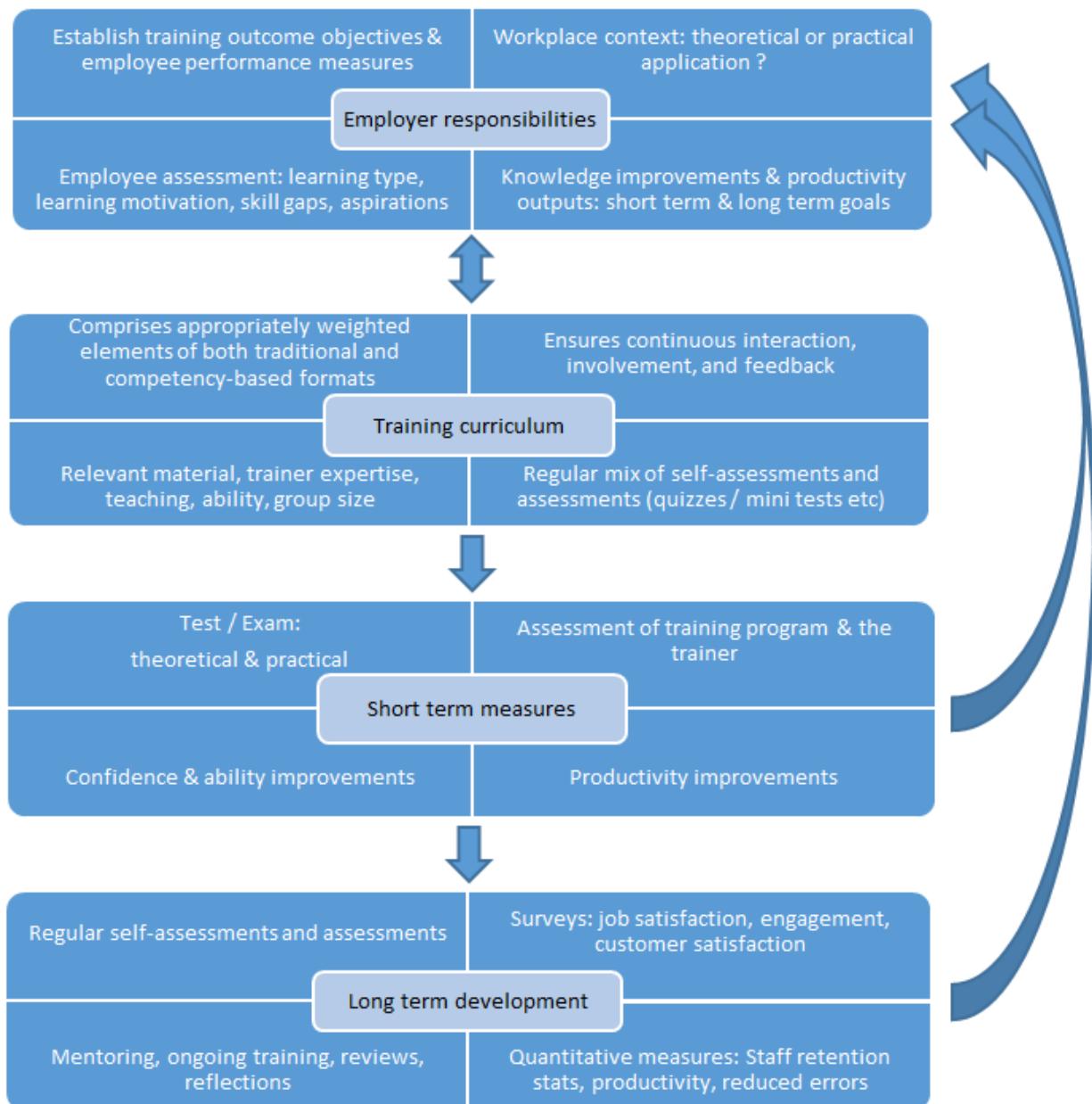
Furthermore, the interviewees identified that the formats target different tasks and functions. The results show that the competency-based training is associated with acquiring the necessary practical skills, a view supported by Cornford (2002), and the traditional form of training is used for providing learners with the theoretical knowledge or the so-called 'context.' Custers (2010) finds that the traditional training format can in fact be more useful than practice-based, by the format enabling the provision of a broader theoretical view of the topic, and therefore could be argued as more universal.

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*Employee involvement:* While competency-based training is considered as capturing a higher engagement level, the effectiveness of the training cannot be solely reliant on the training format, or the trainer. The employee attributes and aspirations are an important contributing element. Once again, the underlying fundamentals for effective training, as similar to Holmes, Reinke, Herman and David's (2021) study, are employee involvement and engagement. The interviewees verified the supposition that a key to effective training, is employee involvement (Goldfinch & Wallis, 2009; Ricciardi, 2005), or in other words, interaction. In this view, it is important to note that in line with Naquin and Holton (2003), and Ricciardi (2005), the interviewees held a consensus that competency-based training offers more prospects for employee interaction than the traditional format, therefore increasing training effectiveness. D. Dubois and Rothwell (2004) also observe that employees are more motivated to learn from practical-based training, due to the practical element.

From the traditional-based training perspective, Risberg (2001) identified the demotivational aspect of trainees being presented with too much theory, or as one of the interviewees noted, "death by Powerpoint". This one-way communication style highlights the importance of employee interaction in the learning environment. It is, therefore, evident that interaction and engagement (involvement) are key aspects of effective training.

**Figure 2.** Conceptual framework of effective training

**Assessment:** Assessments need to have a clear learning objectives or strategy (Hattingh, Dison, & Woollacott, 2019) and incorporate not only the more 'tangible' type tests which assess the more immediate results and outcomes, but also needs to assess the impacts on the emotional aspects, such as improvements in confidence, staff satisfaction, staff retention, and customer satisfaction. These emotional aspects can be strongly argued as being more reliable, stable, and a longer term gauge of the effectiveness of the training.

Training assessments should therefore incorporate a number of elements, represented in the figure (see figure 1) below. Once again the key fundamental that is common within the framework, is ensuring employee engagement.

**Training program:** Where self-assessment was held in the context of trainees providing an assessment of the training received, there were no positively associated connotations from the interviewees, and three outright negative views. This rather skeptical based view is shared by Goldfinch and Wallis (2009), who imply any trainee responses are probably based more on what a training institution would like to hear, rather than what a participant may really think. This skepticism was shared by the interviewees, who also added that any feedback would most likely be ignored regardless. Therefore it would make sense that any employee-based assessment of the training provided, should be completely anonymous, and frank opinions encouraged.

Importantly, the employees would need to see some of these rational suggestions implemented, to validate sincerity of the process.

**Training development:** Perhaps the pessimistic feedback is an indication that most training formats have remained unchanged for a long period of time, and there is a feeling they are unlikely to change regardless of feedback. Is this a subliminal message to employers and training organisations that training formats need to change? This concept could perhaps be aligned with the findings by Voorhees (2001), where the traditional type training is referred as old. Other researchers in this era also remark on the need for a change towards more competency-based training formats (Gherardi, 2001; Harvey, 2000).

Interestingly, the researched literature that highlights and supports the need for competencybased training, and the importance of the ability to apply theory to practice, appears to gain momentum in later years, such as Ash (2006), Baldwin et al. (2011), Brightwell & Grant (2013), Casner-Lotto & Barrington (2006), D. Dubois & Rothwell (2004), Grossman & Salas (2011), Naquin & Holton (2003), and Schmidt (2007). This could well indicate that in the modern day, training in general, remains in the traditional format.

**Skills of the trainer:** A related aspect to assessing the training program, when questioned about training effectiveness, four of the interviewees mentioned training efficacy was directly linked to the trainer's attributes and abilities. These views are reinforced by Roberts, Seldon, and Roberts (1987), who advise businesses on the importance of a trainer being well versed in and holding good training techniques, holding good communication skills, and understanding how people learn, all of which contribute to training effectiveness, in the form of increased productivity. H. G. Schmidt and Moust (1995) also conclude that the tutor attributes such as subject knowledge and communication skills hold a direct effect on the level of student learning.

**Self-assessment:** The interview results do support a positive relationship between competency-based training and self-assessment. The findings by D. Dubois and Rothwell (2004) and Naquin and Holton (2003), also affirm that competency-based training naturally facilitates employees to self-test their abilities and skills. The interviewees discuss the importance of this being that trainees and tutors alike, can assess and observe in a multifaceted and immediate manner. This is also supported by academic research, which identifies

multiple facets, such as detecting and eliminating weaknesses (Rothwell et al., 2010), identifying and filling gaps in employees professionalism (Kandula, 2013; Rothwell et al., 2010), and enabling a validated capability to complete particular tasks (Brightwell & Grant, 2013).

**Emotional assessments:** These assessments discussed above, are all somewhat instantaneous, quantitative based assessments, and seem a rather straightforward, practical, and a 'common sense' means of assessment, which are ultimately based on performance outcomes. However, Deming and Orsini (2013) suggest that measuring performance outcomes is more reliable if assessed by employee motivation and emotional mindset, a view that is also shared by Judge and Bono (2001), who identify motivation and job satisfaction as more stable indicators. Indeed, in addition to the interviewees naming productivity outputs as the key measure, they also mention emotional based measurements such as staff engagement, satisfaction, and staff turnover (retention).

In this regard, all the interviewees advise that competency-based training improves confidence. This would certainly assist in positively reinforcing the emotional aspects, and would correlate with research findings that a positive employee is more likely to be self-motivated to learn, and improve their performance outcomes (Risberg, 2001; Salas & Cannon-Bowers, 2001). Harvey (2000) and Baldwin et al. (2011) reason that competency-based training facilitates swift integration to the work environment, which would no doubt increase confidence. These emotional connotations are comprehensively linked to engagement, job satisfaction, and organisational performance (Baldwin & Ford, 1988; Curry, Caplan, & Knappel, 1994; Gregoire et al., 1998; Roat, 1988). Engagement and job satisfaction would certainly assist with staff retention. In regard to traditional training, however, the interviewees deliberate that assessment appears to be very one dimensional, with a test really being the only option available to assess what knowledge has been retained, and is limited in what it can actually test. This notion is well supported by research findings (Arthur Jr et al., 2003; J. Brown, 2002; Whitmore, 2010). The interviewees further highlight that this may simply measure the short term memory capability of an employee, and is not necessarily able to be applied at a later date, as it suggested by D. Dubois and Rothwell (2004). However, three of the interviewees do support this view. The interviewees also mention that engagement of traditional training is more difficult to maintain. A practical solution to this would seem to be to

complete regular 'mini tests', and/or implement practice-based elements such as role-playing throughout the training.

*Short-term and long-term retention of new knowledge:* While the interview and literature findings could somewhat argue in favour of the increased effectiveness of competency-based training over traditional training, it is also rational to conclude that the effectiveness of traditional training can be raised significantly if the theoretical material is then put into a practical format, such as through the exercise of role-playing, increasing engagement. Furthermore, our study shows similar findings to Ibrahim and Al-Sahara (2007) and state that regular quizzes, mini-tests, and interactive discussions are also shown assist to raise engagement levels.

Employability and group size were two other themes emerged from the analysis. The interview results held a consensus that competency-based training provides employees with a more substantial advantage in the job market, as it evidences that the employee is proficient in completing the required tasks. These views are well supported by the reviewed literature. The four skillsets identified by Casner-Lotto and Barrington (2006) as being important to employers (professional skills, communication skills, teamwork skills, critical thinking), are referred to in the context of applied knowledge – the ability to apply theoretical knowledge to practical situations. Ash (2006), and Forrier and Sels (2003), also report that modern employers are more concerned about the practical abilities of employees, as opposed to holding formal qualifications. The interview results and the reviewed literature certainly exemplify the importance of training comprising the competency-based elements, as the ability of employees to perform the actual tasks is highly valued by employers. On the other hand, the majority of the interviewees identified group size as a significant contributing factor to training effectiveness, and this related this back to interaction, involvement, and engagement of the trainees. While the actual determination of what constitutes a small or large group appears to be rather subjective, the positive correlation of smaller group size and improved training effectiveness seems to be well substantiated, and that a key contributing factor is the improved levels of interaction and engagement. Figure 2 depicts the conceptual framework of effective training is presented, offering a mapping process of the key contributing variables.

The effective training should begin with employers taking responsibility about what they do and what

needs to be done. This includes developing a strategy for teaching comprised of establishing training objectives, identifying theoretical and practical applications for the training, developing employee assessment criteria and identifying the long-term goals and outputs. These responsibility areas then transferred into training curriculum where teaching material, assessments, weights of assessments, feedback, etc. identified. The curriculum then leads to developing short-term measures followed by long-term development. The last two steps of short-term measures and long-term development can feedback into employer responsibilities.

We suggest that for any teaching session, studies should be undertaken to identify what is the optimum number of trainees per one tutor, and can this be further broken down into industry, profession, previous trainee experience. Another suggestion could be that with the ever increasing power of software and artificial intelligence, can there be better development of interactive online training / tests, and more practical based training developed using 3D imagery or interactive type scenarios (for example pilot simulator type training be incorporated to other industry/ profession).

It is apparent that a training format containing mixed methods of traditional and competency-based formats is required for effective training. Furthermore, there are a number of additional contributing variables, and as with the training format, none of these can lay claim to providing effective training on their own. What is required, is a combination of the impacting variables, placed into a comprehensive learning framework. The employer, employee, training curriculum, trainer, assessments and outcomes measurements, all play equally complex and vital roles for ensuring engagement, knowledge transfer into the workplace, long term knowledge retention, and increased performance outcomes.

## CONCLUSION

It is apparent that a training format containing mixed methods of traditional and competency-based formats is required for effective training. Furthermore, there are a number of additional contributing variables, and as with the training format, none of these can lay claim to providing effective training on their own.

What is required is a combination of the impacting variables, placed into a comprehensive learning framework. The employer, employee, training curriculum, trainer, assessments and outcomes measurements, all play equally complex and vital roles for ensuring

engagement, knowledge transfer into the workplace, long term knowledge retention, and increased performance outcomes. The findings provide important insights for organisations, training providers, and employees alike, to assist with increasing the awareness and effectiveness of training programs.

The main contribution of the study is simply that the two training methods must be combined to keep engagement and retention of learnings as we argue that one cannot go without the other. This can also be seen from the other perspective as a trainee may be good at retaining information, but when comes to practical implementation, my not necessarily have the skillsets to complete. In addition, it is worth considering that the environment in the "real work world" is vastly different to a classroom -climate, pressure, politics, relationships with co-workers, resource availability, etc.

The study has limitations. Firstly, the research project was limited by size and scope. Secondly, since most of the interviewees were recruited through the snowball method, there is a risk that their views on the subject may be similar (Morris, 2015). However the preference for qualitative interviews was face-to-face, and as it turned out the snowball method was the most successful for finding volunteers for the interviews.

## APPENDICES

### Interview guide and questions

Outline / review with interviewee prior to interview commencing:

The research explores two types of training concepts: Competency-based (practice-based) training, and traditional training.

For the purpose of this research paper, the context of these types of training are as follows:

The term 'competency-based training' is in the context of the types of training that focus on field knowledge and offer a variety of practice-based activities, including role modelling tasks and problem-solving activities, requiring participation and input from the attendees.

The 'traditional training' is in the context of the types of training that mainly use lectures and seminars, and involve little activity or input from the employees.

In your career, have you participated in, or your subordinates have participated in both types of training?

Answer no = no interview required.

Answer yes = continue as follows:

We shall be discussing these two training formats in the frame of five training categories: training program, training format, employee involvement, assessment, and performance-related value. However, you are free to expand and add to these at any time during the interview.

#### Training program

1. What do you consider are the major differences between the training programs these two formats offer?

2. Do you consider one program is more effective than the other? Why?

#### Training format

3. Do you consider that the format of competency-based training involves a large scope of problem-solving and role-modelling activities? Could you name some examples?

Do you think these activities are effective? Why/why not?

4. Would you characterise the format of traditional training as 'narrative-based'?

Why/Why not? Do you consider this format is effective? In what manner?

#### Employee involvement

5. Do you think the extent of employee involvement determines the effectiveness of the training? Why/Why not?

6. Do you consider the formats of both types of training entail employee involvement?

Do you consider one of these training formats is more effective in these terms? Why/why not?

#### Assessment

7. Do you think that self-assessment is an important aspect of effective training?

Why/Why not? Could you provide some examples?

8. Do you consider one of these training formats involves a larger scope of self-assessment practices? How does it affect the desired outcomes of the training?

#### Performance-related value

9. Do you consider one of these training formats has a more powerful impact on employee performance? Why/why not?

10. Could you provide some examples of performance-related changes associated with either competency-based or traditional type of training (or both)?

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