CHARACTERISTICS OF A TRAINING PROGRAMME THAT STIMULATE TRAINING MOTIVATION: AN INTEGRATIVE LITERATURE REVIEW

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ABSTRACT

A large amount of training investment is reported every year since organizations today prioritize human resource development through formal training; formal training can only benefit organizations if it is effective. Many recent studies have indicated that training motivation is the most important precursor for training effectiveness. Training programme characteristics (TPCs) is one of the factors that can stimulate training motivation with a large effect size. However, the analysis in which TPCs are more important for stimulating training motivation has not yet been comprehensively discussed. This article aims to provide a comprehensive overview of TPCs that stimulate training motivation. Using an integrative literature review of 35 empirical studies on TPCs that stimulate training motivation, it is found that the main characteristics of a training programme that accomplish this task include relevance of training, familiarity of training content, training reputation, option of voluntary attendance, and appropriate training design.

Key Words: training programme characteristics (TPCs), training motivation, training effectiveness, employee training

1. INTRODUCTION

Nowadays, organizations such as IBM, Microsoft, and Motorola are spending billions of dollars annually on training investment, and expenditure on training has increased over the years (Blickstein, 1996; Noe, 2010). Hence, training effectiveness plays a vital role in determining a company’s return on investment. A number of research studies have attempted to investigate the variables that influence training effectiveness (Myers, 1997; Lim & Morris, 2006; Ooi, Lee, & Lo, 2007). Subsequently, the attempts lead to a discovery that training motivation is the precursor for training effectiveness (Tracey & Cardenas, 1996; Tellis, 2004; Handy, 2008). Therefore, previous researchers proved that training programme characteristics (TPCs) were one of the factors that can stimulate training motivation for fostering training effectiveness (Clark, Dobbins, & Ladd, 1993; Tsai & Tai, 2003; Kang, 2007).

Some researchers have continually proven that various forms of training motivation can have a large effect on various measurements of training effectiveness. For example, Tracey, Hinkin, Tannenbaum, and Mathieu (2001) found that pre-training motivation is an important factor for stimulating the acquired application-based knowledge with $r = .63, \beta = .67, p < .01$. Meanwhile, Tziner, Fisher, Senior, and Weisberg (2007) found that motivation to learn can stimulate training grades with $r = .758, \beta = .561, p < .01$. In addition, Pilati and Borges-Andrade (2008) found that motivation to apply is a factor that stimulates performance at work with $\beta = .712, p < .01$. In fact, Kontoghiourges (2004) found that motivation to transfer could explain 49% of variance in training transfer. Therefore, training motivation is very important for guaranteeing training effectiveness.
Rationally, recent studies have highlighted certain characteristics of a training program that can stimulate training motivation with a large effect size. For example, Kang (2007) found that the benefit of training can affect trainees’ motivation to participate in training ($\beta = .64$, $p < .05$). Meanwhile, Clark et al. (1993) found that the utility of training to adhere to job needs can also affect trainees’ motivation to learn with a large effect size ($\beta = .576$, $p < .01$). In addition, Tsai and Tai (2003) found that a training programme that provides material or training content that is familiar to trainees’ background can also affect their motivation to learn ($\beta = .55$ and $p < .01$). It was illustrated that, in order to foster training effectiveness, some TPCs are important for stimulating training motivation.

Despite the importance of TPCs, TPCs related to training motivation have not been comprehensively analysed. Various researchers have identified several TPCs and have segregated them into diverse forms of training motivation (Abdul-Aziz & Ahmad, 2011). Abdul-Aziz and Ahmad (2011) examined TPCs related to training motivation, such as training relevance, training reputation, option of voluntary attendance, and training design. However, the analysis on which TPCs are more important for stimulating training motivation has not been previously discussed. Consequently, there is a need to provide a comprehensive overview of which TPCs are more important for stimulating training motivation.

Without a clear explanation of which TPC characteristic is more important for stimulating training motivation, it is difficult for human resource development (HRD) practitioners to focus on the criteria of an effective training programme. In fact, using the most important TPCs, HRD practitioners could save time and costs by ensuring that the appropriate training program is constructed in order to stimulate training motivation and subsequently guarantee training effectiveness. Therefore, using an integrative literature review, this paper seeks to help practitioners understand the most important TPCs that stimulate training motivation.

2. MATERIALS AND METHODS

In order to explain the most important TPCs related to training motivation, a comprehensive and integrative literature review, as outlined by Torraco (2005), was used. Secondary data on empirical research regarding TPCs related to training motivation were analysed. Publications between the years 1986 and 2011 that discussed TPCs related to various forms of training motivation were selected as enclosure characteristics. An extensive database search in EBSCOHOST, Sage Publication, Emerald, Proquest, and Wiley InterScience was performed that searched for the keyword ‘training motivation’. The preliminary search traced 80 314 articles and dissertations; a detailed search revealed 180 publications related to various forms of training motivation. Among these, 35 studies that specifically focused on enclosure characteristics were selected and applied in the research for this article.

3. RESULTS AND DISCUSSION

TPCs refer to the characteristics of ‘quality learning material and the environment that influence trainee’s motivation in the training experience’ (Abdul-Aziz & Ahmad, 2011, p.55). In training effectiveness models given by Cannon-Bowers, Salas, Tannenbaum, and Mathieu (1995) and Kontoghiorghes (2004), the method, content, and principles of learning were emphasized as TPCs associated with training motivation. However, according to Abdul-Aziz & Ahmad (2011), some empirical studies have further specified some additional TPCS, such as training relevance, training reputation, option to voluntary attendance, and training design, to be effective training motivators. As an extension, the present article investigates which factor is more important for stimulating training motivation.

Through empirical studies, some researchers, such as Facteau, Dobbins, Russell, Ladd, and Kudisch (1995), and Hansen (2001), found that training motivation (e.g. pre-training motivation) mediated the relationship between some TPCs (e.g. training reputation, training
compliance) and transfer of training. Meanwhile, some researchers have either directly, or indirectly, studied TPCs associated with different forms of training motivation (Myers, 1997; Tsai & Tai, 2003; Bell & Ford, 2007). The researchers demonstrated that training effectiveness can be stimulated by selecting appropriate TPCs related to training motivation. According to Cohen (1988, pp. 79-81), the effect size is considered small if ranges between .10 to .29, medium if it ranges between .30 to .49, and large if it ranges between .50 to 1.0. Therefore, on the basis of statistical figures, the synthesis of TPCs related to training motivation demonstrated that the relevance of training is the most important TPC, followed by familiarity of training content, training reputation, option of voluntary attendance, and appropriate training design. This is demonstrated in Table 1.

### 3.1 Training relevance

Training relevance is the degree to which training is related and can be useful for job, career, and personal needs (Noe, 1986). Previous researchers indicated that this concept affected almost all forms of training motivation, such as pre-training motivation, motivation to learn, motivation to transfer, and post-training motivation. However, various aspects of training relevance have been interpreted differently. For example, the relevance of training for job needs was interpreted as *job relevance* by Axtell, Maitlis, and Yearta (1997), *job utility* by Clark et al. (1993) and Nikandrou, Brinia and Bereri (2009), *training fulfilment* by Tannenbaum, Mathieu, Salas, and Cannon-Bowers (1991), *content validity* by Seyler, Holton, Bates, Burnett, and Carvalho (1998), *training utility* by Bell and Ford (2007), *perceived importance* by Tsai and Tai (2003), and *content relatedness* by Gegenfurtner, Festner, Gallenberger, Lehtinen, and Gruber (2009). Further, the relevance of training for career needs is interpreted as *career utility* by Clark et al. (1993) and Nikandrou et al. (2009); meanwhile, the relevance of training for personal needs is referred to as *self-assessed needs* by Myers (1997).

On the basis of the integrative literature review, the relevance of training is indicated as the most important TPC for stimulating training motivation since it can affect training motivation with large effect size. Kang (2007) found that the *perceived benefits of training* can affect *motivation to participate in training* with $\beta = .64$ and $p < .05$. Under training relevance, job-related needs was considered the most important aspect, followed by career- and personal-related needs. Clark et al. (1993) found that the relevance of training for job needs had a large effect size with training motivation ($\beta = .576$, $p < .01$), while the relevance of training for career needs had a small effect size with training motivation ($\beta = .14$, $p < .05$).

In addition, Myers (1997) found that the relevance of training for personal needs had a moderate relationship with pre-training motivation ($r = .65$, $p < .01$). It was demonstrated that the relevance of training can affect training motivation with a small to a large effect size, and with a positive and moderate relationship.

Further, some researchers, such as Cheng and Ho (1998), Cannon-Bowers et al. (1995), Tellis (2004), Pilati and Borges-Andrade (2008), Liebermann and Hoffmann (2008), and Baharim and Gramberg (2007), found that the relevance of training can also affect training motivation after the completion of training (e.g. motivation to transfer; post-training motivation). The researchers assessed the relevance of training as a part of trainee reaction after the completion of training, which demonstrated that the relevance of training can also affect training motivation after the completion of training.

### 3.2 Familiarity of training content

Familiarity of training content is found to be the second most important TPC for stimulating training motivation, in which, Tsai and Tai (2003) found that it can affect the motivation to learn in training with $\beta = .55$ and $p < .01$. This concept refers to the perception of experiencing similar training content (Tsai and Tai, 2003); from the aspect of job experience, this includes schooling experience and exposure to training content. Although research relating to the familiarity of training content is limited, Tsai and Tai (2003) found that it had a large effect size and positive relationships with an initial motivation to learn and motivation to learn during training.
Further, Hopstock (2008) found that there is a significant difference between trainees that were prepared with training content before attending training with those who were not prepared—those who were prepared had a higher motivation to learn. However, in a different study, Tai (2006) found that familiarity of training content had a small effect size with motivation to learn ($\beta = .21, p < .05$). Hence, it was demonstrated that familiarity of training content is another important TPC related to training motivation, which can affect training motivation with a small to a large effect size.

### 3.3 Training reputation

Training reputation is the third most important TPC that can affect training motivation with a medium effect size. Training reputation is referred to as good ‘expectation about the quality of the course’ (Facteau et al. 1995, p. 3). Previous research indicated that a good reputation of training increases various forms of training motivation, such as pre-training motivation, motivation to learn, and motivation to transfer. However, it has been referred to using different terms, such as *training reputation* by Facteau et al. (1995), Hansen (2001), and Switzer, Nagy, and Mullins (2005); *training behaviour* by Martineau (1995); *attitude towards training* by Bates (2001), and Naquin and Holton (2002); *reaction towards training* by Nease (1999); *training framing* by Tai (2006); and *perception about training provider* by Al-Ammar (1994).

Facteau et al. (1995) indicated that training reputation can have a medium effect size and moderate relationship with pre-training motivation ($r = .61, \beta = .32, p < .05$); Tai (2006) found that it can have a medium effect size and moderate relationship with motivation to learn ($r = .61, \beta = .41, p < .01$). Meanwhile, Nease (1999) found that trainees’ reaction to the reputation of training before attending it can explain an approximately 20% variance in pre-training motivation. In addition, Liao and Tai (2006) found that trainees’ perception towards *interactional justice* before attending training, or the reputation of a trainer in giving fair treatment to trainees, affected their motivation to learn with $\beta = .39$ and $p < .01$.

Nonetheless, some researchers, such as Seyler et al. (1998), and Rowold (2007), found that training reputation only had a low correlation with motivation to transfer ($r = .20, p < .05$, in Rowold, 2007; $r = .22, p < .01$, in Seyler et al., 1998). In addition, Naquin and Holton (2002) found that training reputation only had a significant correlation with motivation to train ($r = .51, p < .01$), but not for post-training motivation. Meanwhile, Martineau (1995) did not find any relationship between training reputation and pre- or post-training motivation. This demonstrated that the reputation of training is another TPC associated with training motivation; although the effect was not consistent, it can affect training motivation with a medium effect size and moderate correlation.

### 3.4 Option to attend training

Option to attend training is the fourth most important TPC, which refers to “examining whether trainees are forced to attend training or attend the training programme voluntarily” (Tsai & Tai, 2003, p.153). It was found to affect all forms of training motivation, such as pre-training motivation, motivation to learn, motivation to transfer, and post-training motivation. However, it was referred to by using various terms, such as *compliance* by Facteau et al. (1995); *general compliance* by Nease (1999); *voluntary* by Tharenou (2001); *choice of attending* by Baldwin, Magjuka, and Loher (1991); *decision to participate* by Nikandrou et al. (2009); and *training assignment* by Tsai and Tai, (2003).

Nease (1999) found that an option to attend training can have a medium effect size for pre-training motivation ($r = .38, \beta = .31, p < .01$) and post-training motivation ($r = .42, \beta = .34, p < .01$). However, Tsai and Tai (2003) found that an option to attend training has a low correlation with training motivation ($r = .20, p < .01$, for initial motivation to learn; $r = .24, p < .01$, for motivation to learn). Moreover, Tharenou (2001) found that it had a small effect size with pre-training motivation ($r = .23, \beta = .19, p < .001$). In addition, Baldwin et al. (1991) found that pre-training motivation was higher for individuals who were allowed to choose to attend training and whose choice was accepted, compared to the no-choice
condition \( F(1203) = 4.42, p < .05 \). Extrapolating the data, it was demonstrated that an option of voluntary attendance is another TPC that can affect training motivation with a medium effect size and moderate relationship.

### 3.5 Training design

Training design is the last important TPC discussed in this article. Training design is referred to as “the characteristics of the learning environment” (Noe, 2010, p. 147); previous researchers indicated that this characteristic of the learning environment was shown to affect the pre-training motivation and motivation to learn. Some training design characteristics were shown to increase motivation to learn in training. For example, Bell and Ford (2007) found that distributive justice, or the fair treatment from a trainer during training, can have a small effect size on motivation to learn \( (\beta = .25, p < .001) \). In addition, Klein, Noe, and Wang (2006) found that blended learning can have a low correlation with pre-training motivation and motivation to learn \( (r = .15, p < .01) \). Meanwhile, Weissbein (2000) found that systematic planning for training in terms of preparation activity had a moderate correlation with pre-training motivation \( (r = .43, p < .05) \). In addition, Mathieu, Tannenbaum, and Salas (1992) found that the assignment methods during training can also affect pre-training with small effect size \( (\beta = .13, p < .05) \).

Further, Whitehill and McDonald (1993) found that there is a significant difference between trainees that were offered rewards during training with those that were not, in that those who were offered rewards attained higher training motivation and training performance. Meanwhile, Klein et al. (2006) found that there is a significant difference between trainees that perceived barriers or enablers during training \( (F[245] = 20.3, p < .01) \), in that those who perceived enablers maintained higher training motivation compared to those who perceived barriers. In addition, in a qualitative study among trainees that attended technical training, McCall (2008) found that trainees who encountered obstacles during training had a low level of training motivation. This explains why various training designs can affect training motivation; however, the effect size is small.

### 3.6 Summary

Overall, the relevance of training is the most important TPC, followed by familiarity of training content, training reputation, option of voluntary attendance, and training design. However, the effort to determine the most important TPC is limited because previous research has shown that some of the TPCs have the same effect size and correlation with training motivation. This includes the differences between training relevance and familiarity of training content as well as the dissimilarities of training reputation and option of voluntary attendance. Hence, as a direction for future research, it is recommended that a study be conducted that investigates all five TPCs and uses empirical research to determine the most important characteristic.

### 4. CONCLUSION

Training effectiveness is very important in determining the returns on investment for formal employee training. Consistently, training motivation was continually proven as the most important predictor of training effectiveness, which can be stimulated by providing the most appropriate TPC. However, the analysis for determining which TPC is more important has not been previously discussed; therefore, the present article investigated which factor is most important for stimulating training motivation. Using an integrative literature review of 35 empirical studies on TPCs that stimulate training motivation conducted between the years 1986 and 2011, it is found that the main characteristics of a training programme that stimulate training motivation is the relevance of training, followed by familiarity of training content, training reputation, option of voluntary attendance, and appropriate training design. With regard to training relevance, job-related needs were found to be the most important aspect, followed by career- and personal-related needs. Significantly, these TPCs can be included in a checklist for planning an effective training programme that will stimulate training motivation and subsequently ensure training effectiveness.
REFERENCES


**Table 1**

Previous research that indicated the effect of training programme characteristics (TPCs) on different forms of training motivation

<table>
<thead>
<tr>
<th>TPCs</th>
<th>Different terms used by previous researches</th>
<th>Effect on different forms of training motivation</th>
<th>Among the strongest effect between TPCs and training motivation</th>
<th>Priority</th>
</tr>
</thead>
</table>
| Training relevance          | • Job relevancies, such as *job relevance* (Axtell, et al. 1997), *job utility* (Clark et al. 1993; Nikandrou et al. 2009), *training utility* (Nease, 1999; Bell and Ford, 2007), *training fulfilment* (Tannenbaum et al. 1991), *content validity* (Seyler et al. 1998), *perceived importance* (Tsai and Tai, 2003), and *content relatedness* (Gegenfurtner, Festner et al. 2009)  
  • Career relevancies, such as *career utility* (Clark et al. 1993; Nikandrou et al. 2009)  
  • Personnel relevancies, such as *self-assessed needs* (Myers, 1997)  
  • *initial training motivation* (Tsai and Tai, 2003)  
  • *motivation to learn* (Bell and Ford, 2007; Cheng & Ho, 1998; Nikandrou et al. 2009; Tsai and Tai, 2003)  
  • *motivation to transfer* (Myers, 1997; Seyler et al. 1998; Tsai and Tai, 2003; Tai, 2006; Baharim & Gramberg, 2007; Liebermann & Hoffmann, 2008; Gegenfurtner, Festner et al. 2009)  
  • *post-training motivation* (Nease, 1999; Cannon-Bowers, et al., 1995)  
  • *training motivation* (Clark et al. 1993)  
  • *motivation to participate in training* (Kang, 2007) | Large effect size, moderate relationship  
  • $\beta = .576$ for job relevancies (Clark et al. 1993)  
  • $\beta = .14$ for career relevancies (Clark et al. 1993)  
  • $r = .65$ (Myers, 1997) for personal needs  
  • $r = .40$ with $\beta = .64$ for perceived benefits of training (Kang, 2007) | 1        |
motivation to apply (Pilati & Borges-Andrade, 2008)

- **Familiarity of training content**
  - *familiarity* (Tsai and Tai, 2003; Tai, 2006)
  - *content preparedness* (Hopstock, 2008)
  - *initial training motivation* (Tsai and Tai, 2003)
  - *motivation to learn* (Tsai and Tai, 2003; Hopstock, 2008)

Large effect size, moderate relationship
- \( \beta = .55 \) (Tsai and Tai, 2003)
- \( r = .40 \) (Tai, 2006)

Note: All figures are significant at least at 0.05
(Source: Authors)

### Table 1 (Continued)

<table>
<thead>
<tr>
<th>TPCs</th>
<th>Different indicators or terms used by previous researches</th>
<th>Effect on different forms of training motivation</th>
<th>Among the strongest effect between TPCs and training motivation</th>
<th>Priority</th>
</tr>
</thead>
</table>
| **Training reputation**       | *training reputation* (Facteau et al. 1995; Hansen, 2001; Switzer et al., 2005)  
  *reaction towards training* (Nease, 1999)  
  *framing* (Tai, 2006)  
  *perception about training provider* (Al-Ammar 1994)  
  *attitude towards training* (Seyler et al., 1998; Naquin and Holton, 2002; Rowold, 2007; Bates, 2001)  
  *training behavior* (Martineau, 1995)  
  *interactional justice* (Liao & Tai, 2006)  
  *pre-training motivation* (Al-Ammar 1994; Facteau et al. 1995; Nease, 1999; Hansen, 2001; Switzer et al., 2005; Tai, 2006)  
  *motivation to learn* (Rowold, 2007; Tai, 2006; Bates, 2001; Liao & Tai, 2006)  
  *motivation to transfer* (Seyler et al., 1998; Tai, 2006; Rowold, 2007; Bates, 2001)  
  *motivation to train* (Naquin and Holton, 2002) | *Medium effect size, moderate relationship*  
  \( r = .61 \) with \( \beta = .41 \) (Tai, 2006)  
  \( R^2 = .20 \) (Nease, 1999) | Medium effect size, moderate relationship | 3 |
| **Option to voluntary attendance** | *compliance* (Facteau et al. 1995; Hansen, 2001)  
  *general compliance* (Nease, 1999)  
  *voluntary* (Tharenou, 2001)  
  *pre-training motivation* (Baldwin et al. 1991; Facteau et al. 1995; Nease, 1999; Hansen, 2001; Tharenou, 2001; Tsai and Tai, 2003) | *Medium effect size, moderate relationship*  
  \( r = .42 \) with \( \beta = .34 \) (Nease, 1999) | Medium effect size, moderate relationship | 4 |
| Training design | • choice of attending (Baldwin et al. 1991)  
| | • decision to participate (Nikandrou et al. 2009),  
| | • training assignment (Tsai and Tai, 2003)  
| | • motivation to learn (Tharenou, 2001; Tsai and Tai, 2003; Nikandrou et al. 2009)  
| | • motivation to transfer (Tai, 2006)  
| | • post-training motivation (Tharenou, 2001; Nease, 1999)  
| | • rewards in training (Whitehill and McDonald, 1993)  
| | • distributive justice (Bell and Ford, 2007)  
| | • perceived barriers and enablers, and blended learning (Klein et al. 2006; McCall, 2008)  
| | • assignment method (Mathieu at al., 1992)  
| | • preparation activity (Weissbein, 2000)  
| | • pre-training motivation (Mathieu at al., 1992; Weissbein, 2000; Klein et al. 2006)  
| | • motivation to learn (Whitehill and McDonald, 1993; Klein et al. 2006; Bell and Ford, 2007)  
| | • training motivation (McCall, 2008)  
| | Small effect size, moderate relationship  
| | • $\beta = .25$ (Bell and Ford, 2007)  
| | • $r = .43$ for preparation activity (Weissbein, 2000)  
| | 5 |

Note: All figures are significant at least at 0.05

(Source: Authors)