

Stimulating Workplace Learning through Training Characteristics and Motivation to Learn

(Merangsang Pembelajaran di Tempat Kerja Menggunakan Ciri-ciri Latihan dan Motivasi Belajar)

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ABSTRACT

The present study seeks to identify the efficacy of training characteristics that stimulate motivation to learn; and training effectiveness for workplace learning. Data¹ were collected by administering a survey on self-perception from a sample of academic staff in a Malaysian public university. The findings indicated that training design followed by training reputation and familiarity of training content are the most important training characteristics for workplace learning. Interestingly, trainees who perceive training as relevant will also perceive training as reputable. Meanwhile, motivation to learn plays the role of mediator and the option for voluntary attendance plays the role of moderator. The findings can be used to produce training guidelines that ensure training effectiveness not only for workplace learning, but all training programmes in Malaysia.

Keywords: Human resource development; employee training; training characteristics; motivation to learn; training evaluation

ABSTRAK

Artikel ini bertujuan untuk membentangkan hasil penyelidikan tentang ciri-ciri latihan yang merangsang motivasi belajar dan keberkesanan latihan bagi meningkatkan pembelajaran di tempat kerja. Kajian ini menggunakan kaedah tinjauan terhadap persepsi responden, di mana sampel diambil daripada staf akademik di sebuah universiti awam Malaysia. Dapatan kajian menunjukkan bahawa reka bentuk latihan diikuti oleh reputasi latihan, dan persamaan kandungan latihan dengan pengalaman pelatih adalah ciri-ciri latihan yang paling penting untuk meningkatkan pembelajaran di tempat kerja. Menariknya, pelatih yang menganggap sebuah latihan sebagai relevan juga menganggap latihan tersebut mempunyai reputasi yang baik. Sementara itu, motivasi belajar memainkan peranan sebagai perantara yang signifikan, manakala pilihan untuk menghadiri latihan memainkan peranan sebagai moderator. Hasil kajian boleh digunakan untuk menyediakan ciri-ciri latihan yang tepat dalam usaha untuk menjamin keberkesanan latihan bukan sahaja untuk meningkatkan pembelajaran di tempat kerja tetapi juga dalam latihan umum di Malaysia.

Kata kunci: Pembangunan sumber manusia; latihan pekerja; ciri-ciri latihan; motivasi belajar; penilaian keberkesanan latihan

INTRODUCTION

Training programme characteristics (TPCs) are necessary to guarantee training effectiveness (Nikandrou, Brinia, & Bereri, 2009; Siti Fardaniah & Shamsuddin, 2011). Some researchers find that appropriate TPCs can stimulate motivation to learn in order to foster training effectiveness (e.g., Facticeau, Dobbins, Russell, Ladd, & Kudisch, 1995; Bell & Ford, 2007). However, empirical studies examining the relationship between TPCs, motivation to learn and training effectiveness within a single study are limited, especially in Asian countries.

Extant studies find that training effectiveness for workplace learning can be stimulated by appropriate TPCs, including the relevance of training; content familiarity; the reputation of training; training design; and the option to attend training (Siti Fardaniah, Shamsuddin, Norhasni, Sidek, & Bahaman, 2011; Towler, Watson & Surface,

2014). Meanwhile, Siti Fardaniah and Shamsuddin (2011) argue that the effect of TPCs on training effectiveness can be improved if the right TPCs are structured to stimulate the motivation to learn. In addition, a significant number of studies prove that motivation to learn can improve training effectiveness, especially learning performance (e.g., Cannon-Bowers, Salas, Tannenbaum & Mathieu 1995; Tracey, Hinkin, Tannenbaum & Mathieu 2001; Chen & Chih 2012).

Different researchers identify different TPCs and some TPCs are referred to by different terms. For example, training reputation is identified as a *reaction to training* by Nease (1999); *training framing* by Tai (2006); and *attitude towards training* by Rowold (2007). A comprehensive explanation of TPCs affecting training motivation and effectiveness in extant studies has not been empirically examined thus far (e.g. Siti Fardaniah et al. 2011; Siti Fardaniah & Shamsuddin 2011). Interestingly,

training effectiveness is not only important for human capital development in Western countries, but in Asia generally and especially in Malaysia (Ismail & Osman Gani 2012).

For example, Malaysian public universities should be ranked among the top 100 universities in the QS World University Rankings to ensure that such universities meet international standards (Utusan Online 2015). Ensuring such rankings requires a lot of human capital development, especially in upgrading knowledge and skills among academic staff. However, the QS World University Rankings 2016 reported that Malaysian universities are not listed among the top 250 universities (QS World University Rankings® 2016-2017 2016). Hence, a need exists to research Malaysian public universities with the view to improve academic staff performance through training and development programmes. Therefore, the purpose of this paper is to determine TPCs that can stimulate the motivation to learn in order to foster enhanced workplace learning in Malaysian public universities.

LITERATURE REVIEW

Many models of training effectiveness explain how TPCs can foster training effectiveness, such as the model developed by Cannon-Bowers et al. (1995). Meanwhile, some extant studies empirically tests selected TPCs that can stimulate training motivation to increase learning performance (Siti Fardaniah & Shamsuddin 2011).

LEARNING AS A MEASUREMENT OF TRAINING EFFECTIVENESS

Learning is an important measurement in any model of training effectiveness (Bauer, Orvis, Ely & Surface 2016; Griffin 2012). Learning is defined as the improvement in declarative knowledge, procedural knowledge, and meta-cognition (Kraiger, Ford & Salas 1993; Colquitt, LePine & Noe 2000). For example, training effectiveness models by Cannon-Bowers et al. (1995), Kirkpatrick (1996) and Griffin (2012) emphasise the importance of learning as a measurement for evaluating training effectiveness. Most extant studies argue that learning is the only measurement that can prove whether trainees have changed because of training (e.g., Cannon-Bowers et al. 1995; Kirkpatrick 1996; and Holton 2005).

Additionally, a significant number of extant studies use learning evaluation as a measurement to reach conclusions regarding training effectiveness (e.g. Baldwin, Magjuka & Loher 1991; Peter 2003; Pineda-Herrero et al. 2011; and Griffin 2012). Some researchers use the trainees' perception of learning to evaluate the learning performance instead of learning tests (e.g., Peter 2003; Liebermann & Hoffmann 2008; and Chen & Chih 2012). This is because some studies, such as Stehle, Spinath and Kadmon (2012), prove that no significant difference exists between learning performance measured by learning

tests and learning perception if both are measuring the same criterion of learning. Hence, measuring learning performance using self-perception can determine training effectiveness.

MOTIVATION TO LEARN AS A PREDICTOR FOR TRAINING EFFECTIVENESS

Training motivation plays an important role in determining training effectiveness, especially in guaranteeing learning performance. Colquitt et al. (2000) suggest a model of training motivation as a mediator of the relationships between an independent variable (e.g., trainee characteristic, organisational climate) and training effectiveness; and highlight the importance of motivation to learning performance. Bauer et al. (2016) find that the motivation to learn is the most important type of training motivation in determining training effectiveness. Motivation to learn is defined as the excitement, willingness, desire, intention, planning, effort and commitment to learning and participating in training (Colquitt et al. 2000; Bauer et al. 2016).

Motivation to learn is verified as a mediator of the relationships between independent variables and learning performance in many studies (e.g., Colquitt et al. 2000; Klein, Noe & Wang 2006; and Bell & Ford 2007). Such independent variables include organisational-characteristics; training-characteristics; and trainee-characteristics (Siti Fardaniah & Shamsuddin 2011). Additionally, some extant studies find that the motivation to learn can significantly affect learning performance to a large effect (e.g., Tracey et al. 2001; and Tziner, Fisher, Senior & Weisberg 2007). Interestingly, Siti Fardaniah and Shamsuddin (2011) highlight the importance of TPCs because they can be manipulated to improve training motivation and effectiveness.

TRAINING PROGRAMME CHARACTERISTICS THAT AFFECT TRAINING EFFECTIVENESS

Many models of training effectiveness explain how TPCs can affect training effectiveness (e.g., Cannon-Bowers et al. 1995; Kontoghiorghes 2004; and Bell & Ford 2007). Meanwhile, some studies empirically test selected TPCs that can increase learning performance (Siti Fardaniah & Shamsuddin 2011). Fortunately, Siti Fardaniah et al. (2011) summarise the findings of extant studies examining TPCs, which indicate that TPCs can stimulate training motivation and effectiveness, including training reputation; the relevance of training; training content familiarity; the option for voluntary attendance; and training design.

Cannon-Bowers et al. (1995) argue that some TPCs can stimulate the motivation to learn to increase learning performance, including the method, content, principles and instructors. Meanwhile, Kontoghiorghes (2004) stresses that certain TPCs can stimulate the motivation to learn in order to increase learning performance, including the principles of learning, sequencing and training content. In addition, Bell and Ford (2007) highlight that the content

of training, such as utility perception, and the context of training, such as perception of distributive justice, can stimulate the motivation to learn and, subsequently, affect training performance.

However, using an integrative literature review, Siti Fardaniah and Shamsuddin (2011) find that some TPCs are proven to affect motivation to learn and effectiveness. Furthermore, Siti Fardaniah et al. (2011) explain that extant studies empirically investigate the effect of some

TPCs on training effectiveness using separated studies. Such TPCs are shown in Table 1; however, the TPCs have never been examined empirically within a single study. Interestingly, Tharenou (2001) and Nikandrou et al. (2009) find that trainees that volunteer to attend training have higher training motivation and effectiveness. Furthermore, Baldwin et al. (1991) find that motivation to learn can be a potential moderator. Hence, the TPCs identified in Table 1 are used in the current study.

TABLE 1. Extant studies indicating the effect of training programme characteristics (TPCs) on training effectiveness

TPCs	Different terms used in extant studies	Among the strongest effect between TPCs and training effectiveness
Training relevance	<ul style="list-style-type: none"> • Job relevancies, such as job relevance (Axtell et al. 1997), job utility (Nikandrou et al. 2009), training utility (Nease 1999; Bell & Ford 2007), and perceived importance (Tsai & Tai 2003) • Career relevancies, such as career utility (Nikandrou et al. 2009) • Personal relevancies, such as self-assessed needs (Myers 1997) • Perceived benefits of training (Kang 2007), training value (Cheng & Ho 1998), reaction to training relevance (Cannon-Bowers et al. 1995; Liebermann & Hoffmann 2008) 	<ul style="list-style-type: none"> • Large effect size, moderate relationship • $r = .40$ with $\beta = .64$ for perceived benefits of training (Kang 2007)
Familiarity with training content	<ul style="list-style-type: none"> • familiarity (Tsai & Tai 2003; Tai 2006) • content preparedness (Hopstock 2008) 	<ul style="list-style-type: none"> • Large effect size, moderate relationship • $\beta = .55$ (Tsai & Tai 2003) • $r = .40$ (Tai 2006)
Trainin reputation	<ul style="list-style-type: none"> • training reputation (Facteau et al. 1995; Hansen 2001; Switzer et al. 2005) • reaction towards training (Nease 1999) • framing (Tai 2006) • attitude towards training (Rowold 2007) • content relatedness (Ismail et al. 2016) 	<ul style="list-style-type: none"> • Medium effect size, moderate relationship • $r = .61$ with $\beta = .41$ (Tai 2006) • $R^2 = .20$ (Nease 1999)
Option to voluntary attendance	<ul style="list-style-type: none"> • compliance (Facteau et al. 1995; Hansen 2001) • general compliance (Nease 1999) • voluntary (Tharenou 2001) • choice of attending (Baldwin et al. 1991) • the decision to participate (Nikandrou et al. 2009) • training assignment (Tsai & Tai 2003) 	<ul style="list-style-type: none"> • Medium effect size, moderate relationship • $r = .42$ with $\beta = .34$ (Nease 1999)
Training design	<ul style="list-style-type: none"> • rewards in training (Whitehill & McDonald 1993) • distributive justice (Bell & Ford 2007) • perceived barriers and enablers, and blended learning (Klein et al. 2006; McCall 2008) • assignment method (Mathieu et al. 1992) • preparation activity (Weissbein 2000) 	<ul style="list-style-type: none"> • Small effect size, moderate relationship • $\beta = .25$ (Bell & Ford 2007) • $r = .43$ for preparation activity (Weissbein 2000)

Note: All figures are significant at least at 0.05

Source: Adapted from Siti Fardaniah et al. 2011, 29-30.

RESEARCH FRAMEWORK

Figure 1 shows the research framework for the present study. As demonstrated by Siti Fardaniah et al. (2011), the motivation to learn mediates the relationship between some TPCs and learning performance. Such TPCs include training relevance; the familiarity of training content; training reputation; and training design. The option to

attend training is demonstrated as a potential moderator by Baldwin et al. (1991). Therefore, the option for voluntary attendance is predicted to moderate the relationship between motivation to learn and learning performance.

Therefore, the hypotheses developed are as follows:

H_1 Training programme characteristics, including training relevance, the familiarity of training content,

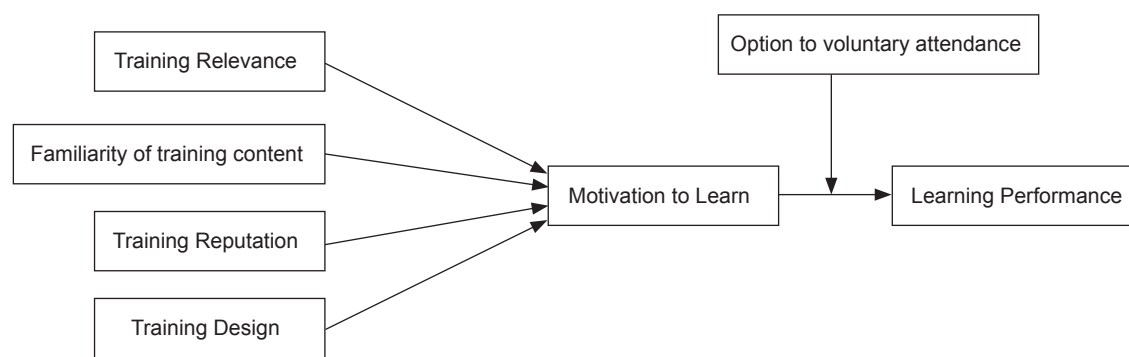


FIGURE 1. Research framework

training reputation, and training design, have a significant effect on learning performance.

- H₂ The motivation to learn has a significant effect on learning performance.
- H₃ The motivation to learn significantly mediates the relationship between TPCs and learning performance.
- H₄ The option of voluntary attendance significantly moderates the relationship between the motivation to learn and learning performance.

METHODOLOGY

The present study adopts a quantitative, survey and correlational design (non-experimental research). Gall, Gall and Borg (2007) argue that correlational design, especially a prediction study, can provide a scientific basis for preparing interventions; reducing costs when the most important factor is identified; and focusing on, and correctly determining, which criteria to incorporate into a decision-making process. Hence, the present study applies this method to determine the influential TPCs for intervention; the most influential factor to focus on; and the mediator and moderator factors that can improve training effectiveness.

Data were collected using self-reports from 281 academic staff in a Malaysian public university that attended one of 17 training programmes organised by the university in 2011. Data were also collected using survey and census techniques with an 84% return rate. The total sample is 281 respondents after omitting outliers. To encourage participation and preserve anonymity, the participants are required to write their e-mail address. The e-mail addresses were used to compile participants' questionnaires and to select winners for a lucky draw. To minimise common method bias, Podsakoff, MacKenzie, Lee and Podsakoff (2003: 191) suggest "...separating the measurement of predictor and criterion variables in time." This was accomplished by collecting data on TPCs at the beginning of training. Data concerning the motivation to learn were collected in the middle of training, and data

concerning learning performance were collected after the completion of training. However, data concerning training design (one of the TPCs) were taken in the middle of training since trainees only know about the training design after their involvement in the training.

The instruments used in the present study are self-constructed; adapted from extant studies; and were tested in Bahasa Melayu. A jury validation involving three lecturers at Universiti Putra Malaysia was organised to check for face and content validity. The aforementioned lecturers hold PhDs in human resource development (HRD) and each is specialised in human resource leadership; human resource policy; and human resource training. Participants in juries must give a score for each item, ranging from 1 (Very Inappropriate) to 10 (Very Appropriate). The average score is then calculated for each construct. A pilot study involving 33 members of academic staff at the same university selected for the sample is performed to test the reliability of the instrument. Table 2 shows the average score and Cronbach alpha reliability for each construct.

TABLE 2. Average score for content validity and Cronbach's alpha for each construct

	TRep	TRel	TCF	TD	ML	LP
Average score of content validity	8.1	7.8	8.7	8.1	8.4	9.0
Alpha Cronbach reliability	.70	.70	.80	.77	.82	.81

Notes: TRep = training reputation, TRel = training relevance, TCF = training content familiarity, TD = training design, ML = motivation to learn, LP = learning performance.

After testing the instrument, a survey involving 281 respondents was conducted. Data are analysed using SPSS and AMOS. SPSS is used to check for exploratory data analysis including normality where no violation of multivariate assumption is found. A structural equation modelling (SEM) is analysed to determine the correlation between variables; to identify related TPCs as independent variables; to determine the mediation effect of motivation to learn; and to determine the moderation effect of an

option of voluntary attendance. In addition, data for the actual study are used to check for the CFA, construct validity and construct reliability using the formula employed by Zainudin (2012); and Hair, Black, Babin and Anderson (2014).

Initially, each TPC had four items. Training reputation was adapted from Hansen (2001). Meanwhile, other TPCs were self-constructed using operational definitions suggested in extant research. Training content familiarity was operationalised by Tsai and Tai (2003). Training relevance and training design were operationalised by Siti Fardaniah and Shamsuddin (2011). Additionally,

motivation to learn had seven items adapted from Noe and Schmitt (1986), while learning performance had nine items that were self-constructed based on the operational definition suggested by Kraiger et al. (1993). However, after conducting confirmatory factor analysis (CFA), items were omitted to get a better goodness of fit. In such a situation, items that have lower factor loadings were omitted as suggested by Hair et al. (2014). Hence, items for each construct were reduced, leaving three items for each TPC; four items for motivation to learn; and five items for learning performance. Table 3 shows the items selected for the final analysis.

TABLE 3. Items selected for the final analysis

Variable	Num.	Items (English Version)	Items (Malay Version)
Training Reputation	TPC1	Most employee training programmes provided by my organisation offers quality training content.	<i>Kebanyakan program latihan pekerja yang disediakan oleh organisasi saya menyediakan kandungan latihan yang berkualiti.</i>
	TPC2	This training programme is certainly used interesting learning methods.	<i>Program latihan ini pasti menggunakan kaedah pembelajaran yang menarik.</i>
	TPC3	This training programme would definitely involve experienced instructors.	<i>Program latihan ini pasti melibatkan jurulatih yang berpengalaman.</i>
Training Relevance	TPC5	The training programme can help me improve my current job performance.	<i>Program latihan ini dapat membantu saya meningkatkan prestasi semasa pekerjaan saya.</i>
	TPC6	The training programme is important to improve my future career development opportunities.	<i>Program latihan ini penting untuk meningkatkan peluang pembangunan kerjaya saya pada masa hadapan.</i>
	TPC8	This training programme will help me solve certain working problems.	<i>Program latihan ini akan dapat membantu saya menyelesaikan beberapa masalah kerja tertentu.</i>
Training Content Familiarity	TPC9	Previously, I used to attend the training that delivers training content that is similar as this training programme.	<i>Sebelum ini, saya pernah menghadiri latihan yang menyampaikan kandungan latihan yang seakan sama sepertimana program latihan ini.</i>
	TPC10	My job provides the opportunity to learn the knowledge associated with this training programme.	<i>Pekerjaan saya menyediakan peluang untuk belajar pengetahuan yang berkaitan dengan program latihan ini.</i>
	TPC12	This training programme is much related to my previous learning experience.	<i>Program latihan ini sangat berkaitan dengan pengalaman belajar saya yang lalu.</i>
Training Design	TD2	The teaching method used in this training programme combined various interesting techniques.	<i>Kaedah pengajaran yang digunakan dalam program latihan ini menggabungkan teknik yang menarik.</i>
	TD3	In overall, the instructors of this training have delivered the training material very well.	<i>Secara keseluruhan, tenaga pengajar dalam latihan ini menyampaikan kandungan latihan dengan baik.</i>
	TD4	In overall, instructors in this training treat all participants fairly.	<i>Secara keseluruhan, tenaga pengajar dalam latihan ini melayan semua peserta dengan adil.</i>
Motivation to Learn	ML1	I get excited to learn the contents of the training that were delivered during this training.	<i>Saya rasa seronok untuk mempelajari isi kandungan latihan yang disampaikan sepanjang latihan ini.</i>
	ML3	I try my best to learn as much as possible from this training.	<i>Saya cuba sedaya upaya untuk belajar sebanyak yang mungkin daripada latihan ini.</i>
	ML4	I try to work harder when I have problems to understand the content of this training.	<i>Saya cuba berusaha dengan lebih gigih apabila menghadapi masalah untuk memahami kandungan latihan ini.</i>
	ML5	Doing well in this training is very important to me.	<i>Melakukan yang terbaik dalam latihan ini adalah sangat penting kepada diri saya.</i>

Continued

TABLE 3. Continued

Variable	Num.	Items (English Version)	Items (Malay Version)
Learning Performance	L3	I can lists down all the important things taught in this training.	<i>Saya boleh menyenaraikan semua perkara penting yang diajar dalam latihan ini.</i>
	L5	I know how to solve certain job problems using the skills taught in this training.	<i>Saya tahu bagaimana untuk menyelesaikan masalah kerja tertentu dengan menggunakan kemahiran yang diajar dalam latihan ini.</i>
	L6	I know how to work more efficient using the knowledge learned in this training.	<i>Saya tahu bagaimana untuk bekerja dengan lebih cekap dengan menggunakan ilmu yang dipelajari dalam latihan ini.</i>
	L7	I am confident that I am more knowledgeable about the subject matter taught in this training.	<i>Saya yakin saya lebih berpengetahuan dalam perkara yang diajar dalam latihan ini.</i>
	L8	I am sure that I have mastered the skills taught in this training.	<i>Saya pasti saya telah dapat menguasai kemahiran yang diajar dalam latihan ini.</i>

Furthermore, Figure 2 shows the measurement model for each construct in the study. Table 4 presents the average variance extracted (AVE), construct reliability (CR), correlation and squared correlation among constructs. The AVE for each construct was higher than 0.5, with the exception of training content familiarity. However, if rounded up to one decimal point, the AVE is 0.5.

Hence, training content familiarity is still included in the examination. Also, the AVE for both training reputation and training relevance are lower than the squared correlation between both constructs. Hence, training relevance was eliminated in the final analysis. With the exception of the aforementioned issues, the validity of the construct is verified.

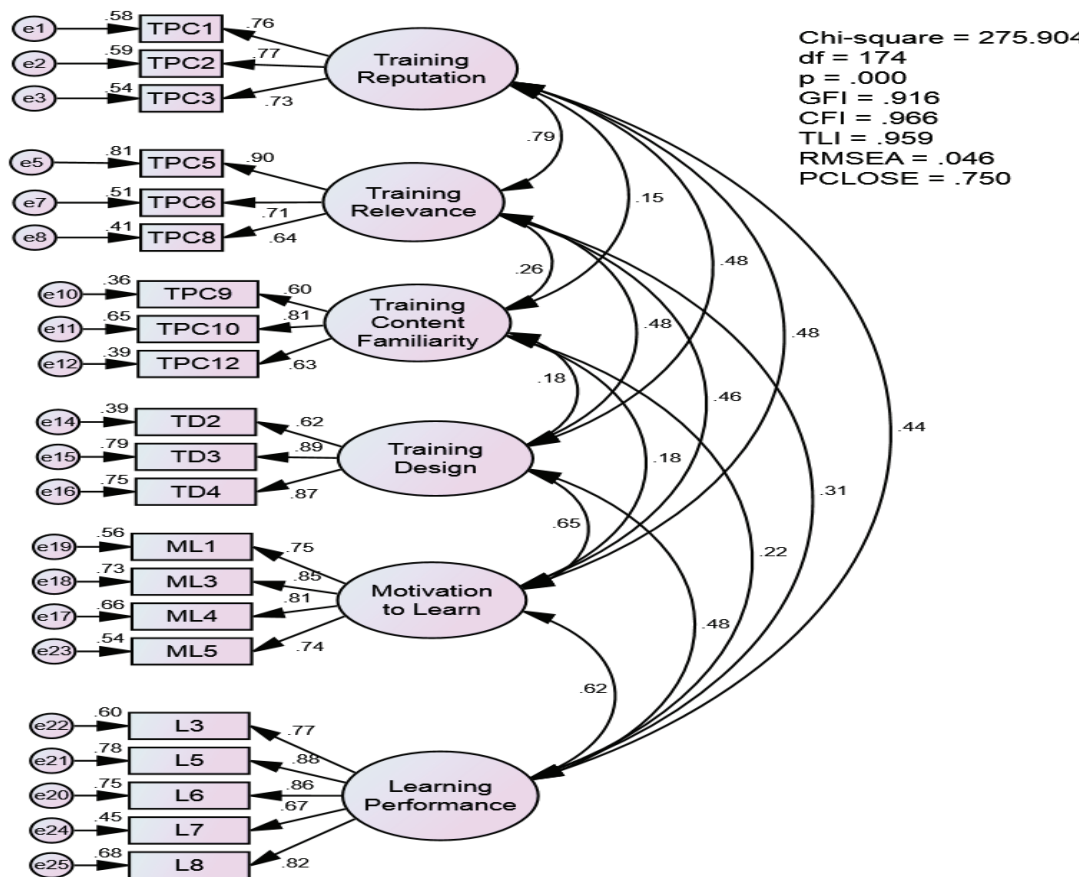


FIGURE 2. Measurement model

Notes: All regression weights and variances are significant at .0001 level of significance. All correlations are significant at .05 level of significance, except for the relationships between training reputation and training content familiarity.

TABLE 4. Average variance extracted (AVE), constructs reliability (CR), correlation, and squared correlation among constructs

AVE	CR		TRep	TRel	TCF	TD	ML	LP
.57	.79	TRep	-	.79	.15	.48	.48	.44
.57	.80	TRel	.62	-	.26	.48	.46	.31
.47	.72	TCF	.02	.07	-	.18	.18	.22
.64	.84	TD	.23	.23	.03	-	.65	.48
.62	.87	ML	.23	.21	.03	.42	-	.62
.65	.90	LP	.19	.10	.05	.23	.38	-

Notes: Values above the diagonal are correlations as produced by SEM. Values below the diagonal are a squared correlation. All correlations are significant at .05 level of significant. TRep = training reputation, TRel = training relevance, TCF = training content familiarity, TD = training design, ML = motivation to learn, LP = learning performance

FINDINGS AND DISCUSSION

The findings of the present study reveal that the main characteristics of a training programme that increase training effectiveness are appropriate training design, followed by the training reputation and familiarity with training content. Interestingly, the relevance of training is found to be the same criterion with the reputation of training, which indicates that trainees who perceive training as relevant are also perceiving training as reputable. As expected, the motivation to learn mediates the relationships between training design and learning performance; and the relationship between training reputation and learning performance. However, the motivation to learn does not mediate the relationships between the familiarity of training content and learning performance. Meanwhile, the option of voluntary attendance significantly moderates the relationship between the motivation to learn and learning performance.

Hypothesis 1 states that the four TPCs (i.e., training relevance; the familiarity of training content; training reputation; and training design) have a significant effect on learning performance (training effectiveness). However, the hypothesis is only partially supported.

The measurement model in Figure 2 shows that training reputation and training relevance are the same TPCs that can affect training motivation and effectiveness, which can be considered as a new finding. Extant studies do not empirically determine the effect of training reputation and training relevance on training motivation and effectiveness within a single study, since previous researchers used separate studies to investigate these TPCs. For example, Facticeau et al. (1995) and Switzer, Nagy and Mullins (2005) only investigate the effect of training reputation on training motivation and effectiveness. Meanwhile, Axtell, Maitlis and Yearta (1997); Bell and Ford (2007); and Liebermann and Hoffmann (2008) only investigate the effect of training relevance on training motivation and effectiveness. However, in the present study, the findings indicate that both TPCs are effectively the same components, since trainees that perceive training as relevant also perceive training as reputable. Additionally, Ismail, Mohd Zainol and Ahmad (2016)

find that trainees that have positive training reputations, such as perceiving the training content as relevant to their jobs, will significantly increase training effectiveness. The aforementioned findings indicate that training reputation and training relevance are actually demonstrating the same criterion of a TPC.

Table 5 shows the direct effect of TPCs on learning performance without the existence of a motivation to learn. The findings indicate that training reputation and training design are the TPCs that significantly affect learning performance at a 0.0001 level of significance. However, the familiarity with training content can only affect learning performance at a 0.1 level of significance. This indicates that hypothesis 1 is partially supported. Interestingly, extant studies report consistently find that certain TPCs have a significant effect on training effectiveness, including familiarity with training content (Tsai & Tai 2003; Tai 2006); training reputation (Facticeau et al. 1995; Ismail et al. 2016); and training design (Whitehill & McDonald 1993; McCall 2008).

TABLE 5. Direct effect of TPCs on learning performance without the existence of a mediator

Hypothesised Path	Standardised Regression Weights Estimates	S.E.	C.R.	p-value
LP <--- TRep	.253	.081	3.399	***
LP <--- TCF	.122	.036	1.889	.059
LP <--- TD	.342	.087	4.486	***

Notes: *** significant at.0001
TRep = training reputation, TCF = training content familiarity, TD = training design, LP = learning performance

Hypothesis 2 states that motivation to learn has a significant effect on learning performance meaning that it is fully supported. The findings indicate that the motivation to learn significantly affects learning performance at a 0.0001 level of significance with an almost large effect ($\beta = .471$) and explaining 42% of the variance in learning performance. The finding is consistent with some extant studies. For example, Tracey et al. (2001)

find that the motivation to learn has a large effect on learning performance among 250 managers in 40 hotels throughout the southern United States ($r = .63, \beta = .67$). Meanwhile, Tziner et al. (2007) find that the motivation to learn affects the learning grade among 130 employees of a large industrial power company ($r = .758, \beta = .561$). The aforementioned findings show that learning performance can be stimulated by the motivation to learn. Hence, any organisation in Malaysia can stimulate their employees' motivation to learn to improve training effectiveness.

Hypothesis 3 states that motivation to learn significantly mediates the relationship between TPCs and learning performance. The technique to determine the mediation effect of motivation to learn is based on a suggestion by Zainudin (2012) and Hair et al. (2014).

Additionally, Figure 3 shows the structural model for the study; and results indicating that the structural model fits the data: $\chi^2(125) = 193.236$ with $p = .000, \chi^2/df = 1.5459$, $GFI = .929, CFI = .973, TLI = .967$, and $RMSEA = .044$ with $PCLOSE = .78$. The findings indicate that training design and training reputation are TPCs that can affect motivation to learn. However, the familiarity with training content does not have a significant effect on the motivation to learn, although familiarity with training content can affect learning performance at a 0.1 level of significance ($\beta = .102, p = .09$). The findings are presented in Table 6. Hence, motivation to learn is not a significant mediator of the relationship between training content familiarity and learning performance.

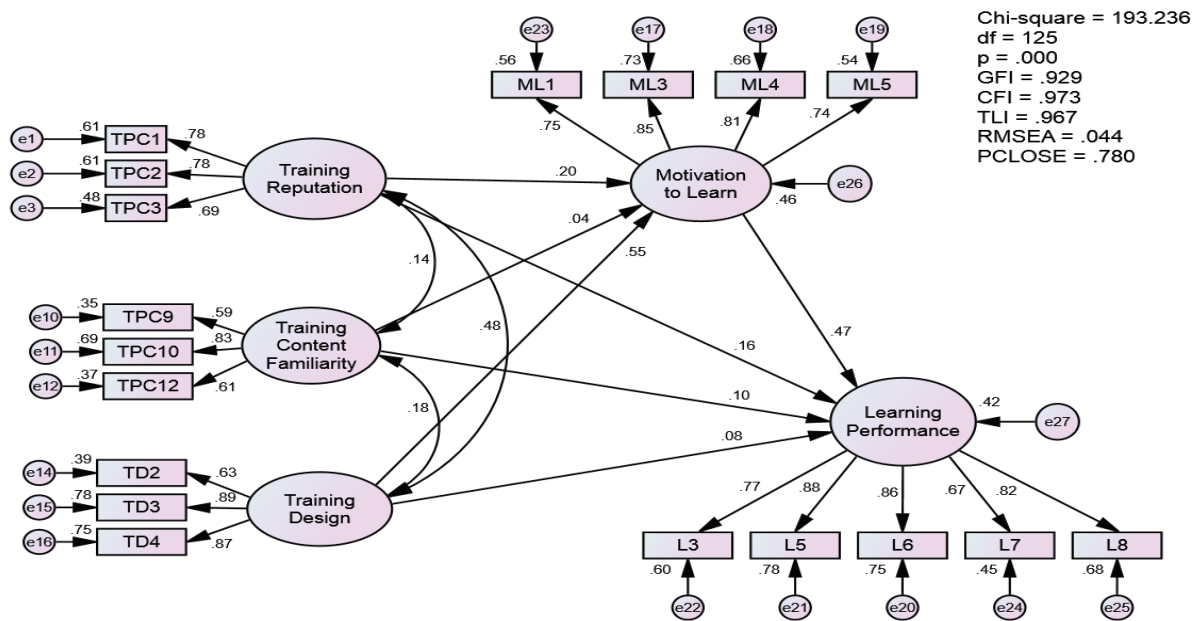


FIGURE 3. Structural Model

Notes: All variances are significant at .0001 level of significance; all correlations are significant at .05 level of significance; only regression weights between motivation to learn and learning performance, training reputation and motivation to learn, and that between training design and motivation to learn are significant at .05 level of significance.

Table 6 shows that the motivation to learn has a significant effect on learning performance ($\beta = .471, p = .0001$); and training reputation has a significant effect on learning performance ($\beta = .156, p = .026$). However, training design has no significant effect on learning performance. Also, training reputation ($\beta = .205, p = .003$) and training design ($\beta = .549, p = .0001$) have a significant effect on motivation to learn. Similarly, Table 7 shows that a significant indirect effect exists between training reputation and learning performance ($\beta = .189, p = .003$); and between training design and learning performance ($\beta = .438, p = .001$). The aforementioned results indicate that the motivation to learn fully mediates the relationships between training design and learning performance; and partially mediates the relationship between training reputation and learning performance. Hence, hypothesis 3 is only partially supported.

The mediation effect of motivation to learn is consistent with extant studies. Colquitt et al. (2000); Klein et al. (2006); and Bell and Ford (2007) find that the motivation to learn mediates the relationship between some TPCs and learning performance. Meanwhile, Bell and Ford (2007); Weissbein (2000); and Klein et al. (2006) indicate that the motivation to learn is a mediator of the relationship between some elements of training design and learning performance. Furthermore, Fecteau et al. (1995); Hansen (2001); and Switzer et al. (2005) find that training motivation mediates the relationship between training reputation and training effectiveness. Hence, the motivation to learn is an important mediator that affects training effectiveness in the Malaysian context.

Interestingly, limited research exists concerning the effect of training content familiarity on the motivation to learn and learning performance. For example, only

TABLE 6. Correlation, regression weights, standard error (S.E.), critical ratio (C.R.), and significant level between constructs in the structural model

Hypothesised Path	Standardised Correlation Estimate	Standardised Regression Weights Estimates	S.E.	C.R.	p-value
LP <--- ML	-	.471	.085	5.367	***
LP <--- TRep	-	.156	.076	2.221	.026
LP <--- TCF	-	.102	.034	1.696	.090
LP <--- TD	-	.083	.093	1.020	.308
ML <--- TD	-	.549	.098	6.576	***
ML <--- TCF	-	.045	.035	.753	.452
ML <--- TRep	-	.205	.078	2.934	.003
TRep <--> TCF	.139	-	.020	1.782	.075
TRep <--> TD	.479	-	.011	5.435	***
TCF <--> TD	.176	-	.018	2.288	.022

Notes: *** significant at a .0001 level of significance. TRep = training reputation, TCF = training content familiarity, TD = training design, ML = motivation to learn, LP = learning performance.

TABLE 7. Indirect effects with two-tailed significance using bias-corrected bootstrapping method for the structural model

	Standardised Indirect Effects				Two-Tailed Significance (BC)					
	TRep	TCF	TD	ML	LP	TRel	TCF	TD	ML	LP
ML	...	...	...	...	...	...	...	...	...	...
LP	.189	.080	.438	...	...	.003	.403	.001	...	...

Notes: TRep = training reputation, TCF = training content familiarity, TD = training design, ML = motivation to learn, LP = learning performance

Tai (2006) finds that the motivation to learn mediates the relationship between content familiarity and learning performance, with $\beta = .25$. However, the present study finds that familiarity with training content can only affect learning performance at a 0.1 level of significance. Hence, the inconsistent findings might be influenced by the different cultures where the samples are taken for the research. For example, Bunch (2007) demonstrates that variation in organisational culture can affect the relationship between characteristics of training and training effectiveness. Meanwhile, Tharenou (2001) finds that variation in trainee characteristics, including trainee regional culture and occupational types, can also affect the relationship between characteristics of training and training effectiveness. Additionally, Ashkanasy, Wilderom and Peterson (2011); and Horgan and Muhlau (2006) explain that the uniqueness of an organisation taken for a sample can also affect the relationship between characteristics of training and training effectiveness. Finally, the present study is performed in Malaysia where the inconsistent findings could be interpreted as demonstrating the effect of different cultures on the relationship between characteristics of training and training effectiveness.

On the other hand, Hypothesis 4 states that the option for voluntary attendance significantly moderates the relationship between motivation to learn and learning performance. The moderation effect is tested using the

approach suggested by Zainudin (2012) and Hair et al. (2014). The Chi-Square difference between the default model (193.236) and the constraint model (244.574) is 51.38, which is greater than 3.84. Hence, a significant moderation effect exists in regards to the option of voluntary attendance; therefore, Hypothesis 4 is fully supported. Also, Table 8 shows that the significance level between motivation to learn and learning performance does not change for the optional group (109 respondents) and compulsory group (172 respondents). Hence, it can be concluded that the option of voluntary attendance partially moderates the relationship between the motivation to learn and learning performance.

The findings are somewhat consistent with the findings of other researchers that investigate the effect of the option of voluntary attendance as a TPC that can affect training motivation and effectiveness. For example, Baldwin et al. (1991) find that the option of voluntary attendance can affect training motivation and effectiveness, since trainees that had an option to attend training have a higher training motivation and effectiveness. Meanwhile, Tharenou (2001) and Nikandrou et al. (2009) find that trainees that volunteer to attend training have higher training motivation and effectiveness. Hence, the present study shows that the option of voluntary attendance can moderate the relationship between motivation to learn and learning performance in the context of Malaysian.

TABLE 8. Model comparison for the level of significance between constructs to determine the moderation effect of option to voluntary attendance

Model Comparison	Hypothesised Path	Standardised Regression Weights Estimates	S.E.	C.R.	p-value
Default	LP <--- ML	.467	.061	7.520	***
Optional	LP <--- ML	.456	.061	7.520	***
Compulsory	LP <--- ML	.485	.200	7.520	***

Notes: *** significant at a .0001 level of significance. ML = motivation to learn, LP = learning performance

The findings are consistent with extant studies despite the fact that the samples in extant studies are obtained from different countries.

LIMITATIONS

Some limitations exist in relation to the present study. First, the sample was obtained from only one public university, despite the fact that the institution is large; and encompasses many different faculties, institutes, and departments. Hence, future studies should replicate the present study by sampling an organisation that differs in terms of co-business orientation; types of occupations; and sub-region location. The suggestion is made based upon the fact that extant studies demonstrate that such differences can affect the findings (Cheng & Ho 1998; Bunch 2007; Ashkanasy et al. 2011). Second, data concerning learning performance is based on self-perception; hence, future studies can replicate the present study using different types of data, such as the actual scores of exams/tests. Third, the present study adopts a quantitative and survey design. Hence, future studies should consider using multiple methods of research, such as experimental and qualitative research. Qualitative research may explain many reasons for inconsistent findings between current and extant studies (Tracy 2013). Meanwhile, using experimental data concerning the effect of independent variables on dependent variables is more precise.

RESEARCH IMPLICATIONS AND RECOMMENDATIONS

The findings of the present study have several implications and provide a basis to make numerous recommendations. First, the present study finds that training design is the most important TPC. As such, human resource management (HRM) and HRD practitioners can focus on the training design as an intervention to improve training effectiveness. To enhance training design, Mathieu, Tannenbaum and Salas (1992) find that a variation in assignment methods, such as essay writing, organising programmes, and reporting phenomenon, can affect training effectiveness. Meanwhile, Whitehill and McDonald (1993) find that rewards in training, including appreciation, merit and prizes, can stimulate training motivation and effectiveness.

Moreover, Klein et al. (2006) find that blended learning, such as the integration of online learning, teamwork, action learning, brainstorming and group discussion, can stimulate the motivation to learn. Meanwhile, Peter (2003) finds that action learning is an effective training design for professionals, such as organisational leaders. Hence, the findings of the present study have implications for HRM/HRD practitioners and researchers that provide training designs that can stimulate the motivation to learn and training effectiveness.

Second, the present study finds that training reputation is another important TPC. As such, an organisation member should have a positive perception of training. Facticeau et al. (1995) and Towler et al. (2014) find that social support, especially from upper management and supervisors, is imperative to form a positive perception of training. Furthermore, upper management should have a positive perception of training if employees are expected to have a positive perception of training. Hence, the present study brings awareness to upper management, supervisors, chief executive officers (CEOs) and stakeholders that they should have a positive perception of training to ensure that employees will also have a positive perception of training and take HRD programmes seriously.

Third, the present study finds that the option of voluntary attendance moderates the relationship between the motivation to learn and training effectiveness. Hence, organisation managers and administrators should ensure that trainees attend training through a sense of voluntarism. If not, training should be postponed to save costs. It is important to ensure that employees are willing to attend training, although some training is compulsory. For example, if training is compulsory, it can be offered several times in a year to ensure that participants are willing to attend the training when they are ready. Therefore, the findings of the present study suggest that organisation managers and administrators can save costs associated with training by offering training that is both required for and desired by employees.

Fourth, the present study finds that the motivation to learn has a significant effect on training effectiveness (learning performance). As such, HRM and HRD policy makers in the government and private sectors should make sure that employees have a high level of motivation to learn in order to ensure training effectiveness. This can be achieved by improving HRD policies in a manner where

the priority to attend training is given to those employees that have a high level of motivation to learn, especially for expensive training. The determination of motivation to learn can be established by training need analysis (TNA). An HRD policy should also make sure that employees' motivation to learn is an important criteria in the TNA. Hence, the finding of the present study has potential implications for HRM and HRD policy makers.

Fifth, the present study finds that several TPCs are significant predictors for training effectiveness (learning performance), including training reputation, training design, and training content familiarity. Motivation to learn mediates the relationship between training reputation and training effectiveness, as well as the relationship between training design and training effectiveness. Although extant studies investigate factors related to training effectiveness and the contribution of motivation to learn, each factor was investigated in separate empirical studies. However, the present study integrates the TPCs determined to be influential in extant studies and determines their effects on motivation to learn and training effectiveness. The findings contribute to the existing body of knowledge in HRD, especially in the Malaysian context. Also, practically, the findings can be used to improve HRD programmes among academic staff in higher educational institutions to provide quality training for the purpose of improving the rankings of the respective universities in world international rankings.

Finally, the present study finds that the motivation to learn and several TPCs (i.e., training reputation; training design; and training content familiarity) explains approximately 42% of the variance in training effectiveness. As such, the findings deepen the understanding of the characteristics of training that can increase training motivation and effectiveness. The findings can be applied by various entities in society to enhance HRD programmes not only for employees, but also other community groups. For example, the findings can be applied to improve training in communication skills for students; leadership skills among youths; and entrepreneurship skill for the general public.

CONCLUSION

The purpose of this study is to determine TPCs that can stimulate the motivation to learn to foster enhanced workplace learning, especially in Malaysian public universities. Most of the findings of the present study are consistent with extant studies. For example, the present study finds that certain TPCs (i.e., training design and training reputation) can significantly affect the motivation to learn and training effectiveness where the motivation to learn plays the role of a mediator. Also, the familiarity with training content can affect training effectiveness at a 0.1 level of significance. Meanwhile, the option for voluntary attendance moderates the relationships between motivation to learn and learning performance.

Furthermore, the present study reveals that the reputation of training is effectively the same criterion as the relevance of training since trainees who perceive training as relevant also perceive the training as reputable. Since extant studies neglect to report the differences between the effect of training reputation and training relevance on training motivation and effectiveness, the results of the present study concerning the effect of training reputation and training relevance on training motivation and effectiveness can be seen as a new finding. The findings of the present study are also important since the sample is obtained in Malaysia, whereas most extant studies reports on samples acquired in Western countries.

ENDNOTE

- ¹ Data were collected during PhD research performed by the author during her candidature at Universiti Putra Malaysia with the title "Mediation effect of training motivation on the relationships between trainee, training programme, organisational characteristic support and overall training effectiveness."

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