Assessing the Relationship between Training Environment and Training Effectiveness in Institute of Research and National Integration Training(IKLIN), Department of National Unity and Integration (JPNIN), Prime Minister's Department

Ismail Zakaria[1]

Abstract

This study attempts to evaluate the training effectiveness provided by the Institute of Research and National Integration Training (IKLIN) organised by the Department Of National Unity and Integration (JPNIN). This study also identifies the influencing factors that affect the training effectiveness, that is, the training environment. Adopted questionnaires are used for data collection. Out of the 100 participants, 75 respondents return their questionnaires, making the response rate of 75 percent. The data is processed and analysed using Statistical Package for the Social Sciences (SPSS). Appropriate data analysis techniques are used, both for descriptive and inferential analysis. Findings show that the respondents perceive that the training environment provided by IKLIN are good, especially in their ability in task involvement. Findings also reveal that training environment significantly associates with and influences the training effectiveness. Suggestions for future research are made in the last section of this study.

Keywords - Training Environment, Training Effectiveness, Task Involvement.

Introduction

In a rapidly changing global business environment in which innovation, speed and efficiency are often necessary for success, organizations must constantly work to upgrade and enhance employees' skills (Ford, 1997). However, the role and perceived importance of training as a means to improve performance in organizations has grown over time. Training also plays an important role to provide employees the knowledge and skills needed to do a particular task or job.

Training starts as soon as a new employee is hired for a particular post by an organization. The recruitment and selection process ensures that the employee hired fulfils the selection criteria, which means that the particular employee must have the qualifications, knowledge, skills and capabilities set by the organization. Therefore, the employee must be given training as soon as he joins the organization. Training typically involves providing employees the knowledge and skills needed to do a particular task or job, though attitude change may also be attempted.

[1] PhD. Candidate, Awang Had Salleh Graduate School of Art & Sciences, Northern University Malaysia (UUM)

Training has long been an issue for organizations that exist as the non-profit sector. Time and expenses are the main issues that consistently surface in any discussion of non-profit training needs. Time and expenses impact smaller agencies to a much greater degree than larger organizations. Many training programmes fail to deliver the expected organizational benefits. Having a well-structured measuring system in place can help organizations determine where the problem lies. On a positive note, being able to demonstrate a real and significant benefit to the organization from the training can help people gain more resources from important decision-makers.

Problem Statement

According to Switzer and Kleiner (1996), different organizations have different management reactions to current training methods. There are effective ways to train teams but they require work, research and caring. Everyone learns in different ways. Corporations often make the mistake that can mandate certain learning methods. One of the most informative thing is the amount of preparation that is necessary to present an effective training session. The types of preparations are: knowledge about the trainees, dealing with reluctant or resentful trainees, familiarize with team environment, conduct training and adopting new technologies.

Longenecker (2007) has identified the consequences of ineffective training and educational practices of manufacturing organizations in his studies. He discovers that at the organizational level, ineffective training leads to lower productivity, poor product quality, customer dissatisfaction, difficulty in achieving performance goals, loss of teamwork, low morale, increased stress, inflated costs and underutilization of both equipment and technologies. At the individual worker level, ineffective training can cause poor performance, loss of confidence, increased frustration, job dissatisfaction and demotivation. Low productivity, customer dissatisfaction and safety concerns are other damaging effects of poor performance . Training which is controllable, when not properly handled can create a myriad of uncontrollable, unpredictable and negative consequences.

Most of the current literature focus on the study of training effectiveness but not much of them focus on the relationship between training effectiveness and training environment, especially in Malaysia. For example, Salas & Cannon- Bowers (2001), study the relationship between training effectiveness and time during training, transfer of skills that emerge, as well as organizational system factors and training design. Kozlowski, Brown, Weissbein, Cannon-Bowers & Salas, (2000) study the effects of organizational environment, pre-training motivation and relevance of training to the job to training effectiveness.

As training environment is an important factor that affects training effectiveness, there is a need to do such study. This study will give a comprehensive account on how training can be organized effectively, using the five dimensions of training environment that is important to achieve training objectives. The selection of these five dimensions is suitable and can be adapted to our Malaysian environment.

Research Questions

This study will initially be guided by the following questions:

(a) Do training environment factors (physical support, supervision, communication, peer cohesion and task involvement) associate with training effectiveness?

(b) Do training environment factors (physical support, supervision, communication, peer cohesion and task involvement) contribute to training effectiveness?

Research Objectives

The general objective of this study is to determine the relationship between training environment factors and training effectiveness. This study also has specific objectives which are:

(a) To determine the relationship between training environment factors (physical support, supervision, communication, peer cohesion and task involvement) and training effectiveness.

(b) To determine the influence of training environment factors (physical support, supervision, communication, peer cohesion and task involvement) on training effectiveness.

Significance of the Study

The research will provide relevant findings to the Department of National Unity and Integration (JPNIN) organization on how the officers and Rukun Tetangga Organization benefit from the activities carried out by the Institute of Research and National Integration Training (IKLIN) in their training programmes. In addition, the literature review will reveal some of the viewpoints and findings from previous studies on training in the organization. On the other hand, findings from this study will also attempt to determine training effectiveness. It is hoped that the findings will help the management either to improve or to formulate better training programmes which can enhance the knowledge, skills and abilities (KSA) of officers and the Rukun Tetangga Organization in the future. In addition to that, developing and instilling new KSA together with technological skills through training and sharing among trainees and trainers will benefit the whole organization in the long run.

Literature Review

Training Effectiveness

Training, in the most simplistic definition, is an activity that changes people's behaviour. Increased productivity is often said to be the most important reason for training. But it is only one of the benefits. Training is essential not only to increase productivity but also to motivate and inspire workers by letting them know how important their jobs

are and giving them all the information they need to perform those jobs. According to Campbell, Dunnette, Lawler and Weick (1970), training can be defined as a planned learning experience designed to bring about permanent change in an individual's knowledge, attitudes or skills. McNamara (n.d.) lists the following as general benefits from employee training:

- Increased job satisfaction and morale
- Increased motivation
- Increased efficiencies in processes, resulting in financial gains
- Increased capacity to adopt new technologies and methods
- Increased innovation in strategies and products
- Reduced employee turnover

This is only a partial listing of the many benefits that result from training. Training that is appropriate to the needs of an organization can add great value. Human resources management is facing a challenging period, with tight budgets in the federal government and in many states. Hence, increasing pressure to improve productivity. At the same time, the changing demographic nature of the workforce (Hudson Institute, 1988) and the rapid introduction of new technologies into the workplace suggest a need for increased training opportunities, both to give entry-level staff the necessary work skills and to retrain experienced employees in new skills. In times of budget stringency, however, training is often seen as expendable and thus is the first area cut. Given the often precarious position of training in government agencies, one would expect trainers to put a high priority on evaluation, in order to document improved individual performance or organizational productivity. In fact, the state of the art in training evaluation remains quite primitive, for the most part. Training evaluation is generally seen as having four possible levels: evaluation of trainees' reactions, of learning, of individual behaviour and of organizational results (Kirkpatrick, 1976).

While evaluation of the link between training and behaviour or performance would most appropriately document the organizational benefits of training, most evaluation still focuses primarily on the first two levels, with few studies examining the effects of training on either individual job performance or results for the organization (Clement, 1981; Ammons & Niedzielski-Eichner, 1985).

So, why would an organization not welcome and seek out the value-added benefits resulting from training? Training is not always the answer to performance problems. According to Brandt Sakakeeny, training industry analyst for Solomon Smith Barney, believes that training can be a great investment and training can be a waste of money (Rosner, 1999). Training is indeed a waste of money when the desired behaviour does not occur. Gupta acknowledges that not all performance problems can be addressed by training. In many cases, non-training interventions are necessary (Gupta, 1999).

The key is to identify what problems can be attributed to training deficiencies and once that is accomplished, to ensure that the right training is implemented. Bartram and Gibson, in their "Training Needs Analysis Toolkit" agree to that. Bartram and Gibson (2000) say that without the right training, employees can be the organization's biggest liability. Trained effectively, however, they can become the organization's

biggest asset. Rosner (1999) adds that another ingredient for success is the support after training. Training is of great importance. In 1998, American companies spent $60 billion on training (Rosner, 1999). So, how does an organization train effectively so that the investment results in growth and success? To make training effective, it must be matched directly to the needs of the organization and people in it. In terms of evaluating the effectiveness of training programmes, several different outcomes may be of interest. Kirkpatrick's measurement categories for evaluating the effectiveness of training programmes include reactions, learning, behaviour and results (Alliger and Janak, 1989).

The first category or level in Kirkpatrick's model is the "reaction" or feelings that participants in a training programme have towards the actual programme. While this outcome is an important starting point for evaluating programme outcomes, it is perhaps the least explored in existing studies identified for this meta-analysis. The second category in Kirkpatrick's model is "learning" and is concerned with knowledge outcomes, or ideas, information and approaches from the training programme that are understood and retained by trainees.

For the third level in his model, Kirkpatrick identifies "behaviour" as an outcome. This level is concerned with the actual on-the-job application of learned ideas, information, and approaches from the training programme. The final level in the model is concerned with "results," which is broadly conceived as the overall end results achieved. These results could take myriad forms including sales quotas met, cost reductions, increased employee retention or satisfaction and any number of system outcomes.

Reaction

As the word implies, evaluation at this level measures how the learners react to the training. This level is often measured with attitude questionnaires that are handed out after most training classes. This level measures one thing: the learner's perception (reaction) of the course. Learners are often keenly aware of what they need to know to accomplish a task. If the training programme fails to satisfy their needs, action should be taken to ascertain whether the programme design or delivery is at fault.

This level is not indicative of the training performance potential as it does not measure what new skills the learners have acquired or what they have learned that will transfer back to the working environment. This has caused some evaluators to play down its value. However, the interest, attention and motivation of the participants are often critical to the success of any training process: people often learn better when they react positively to the learning environment by seeing the importance of it.

When a learning package is first presented, whether it be e-learning, classroom training, CBT, et cetera, the learner has to make a decision as to whether he or she will pay attention to it. If the goal or task is judged as important and workable, then the learner is normally motivated to engage in it (Markus - Ruvulo, 1990). However, if the task is presented as low relevance or there is a low probability of success, then a negative effect is generated and motivation for task engagement is low.

Learning

This is the extent to which participants change attitudes, gain knowledge and improve skills as a result of participating in the learning process. The learning evaluation requires some type of post-testing to ascertain what skills were learned during the training. In addition, the post-testing is only valid when combined with pre-testing, so that they can differentiate between what they already knew prior to training and what they actually learned during the training programme. Measuring the learning that takes place in a training programme is important in order to validate the learning objectives.

Learner assessments are created to allow a judgment to be made about the learner's capability for performance. There are two parts to this process: the gathering of information or evidence (testing the learner) and the judging of the information (what does the data represent?). This assessment should not be confused with *evaluation*. Assessment is about the progress and achievements of the individual learner, while evaluation is about the learning programme as a whole (Tovey, 1997).

Evaluation in this process comes through the learner assessment that was built in the design phase. Note that the assessment instrument normally has more benefits to the designer than to the learner. Why is this so? For the designer, the building of the assessment helps to define what the learning must produce. For the learner, assessments are statistical instruments that often correlate poorly with the realities of performance on the job and they rate learners low on the "assumed" correlatives of the job requirements (Gilbert, 1998). Thus, the next level, performance, is the preferred method of assuring that the learning transfers to the job, but sadly, it is quite rarely achieved.

Behaviour

This evaluation involves testing the students capabilities to perform learned skills while on the job, rather than in the classroom. Level three evaluations can be performed formally (testing) or informally (observation). In Kirkpatrick's original four levels of evaluation, he names this level behavior. However, behaviour is the action that is performed, while the final result of behaviour is the performance. Gilbert says that performance has two aspects - behaviour being the means and its consequence being the end (Gilbert, 1998). If we are only worried about the behavioural aspect, then this could be done in the training environment. However, the consequence of the behaviour (performance) is what we are really after: can the learner now perform and produce the needed results in the working environment?

It is important to measure performance because the primary purpose of training is to improve results by having the students learn new skills and knowledge and then actually applying them to the job. Learning new skills and knowledge is of no good to an organization unless the participants actually use them in their work activities. Since level three measurements must take place after the learners have returned to their jobs, the actual level three measurements will typically involve someone closely involved with the learner, such as a supervisor.

Although it takes a greater effort to collect this data than it does to collect data during training, its value is important to the training department and organization as the data provides insight into the transfer of learning from the classroom to the work environment and the problems encountered when attempting to implement the new techniques learned in the programme.

Results

This is the final results that occur. It measures the effectiveness of the training programme, that is, "What impact has the training achieved?" These impacts can include such items as monetary, efficiency, morale, teamwork, et cetera.

As we move from level one to level four, the evaluation process becomes more difficult and time consuming. However, the higher levels provide information that is of increasingly significant value. Perhaps the most frequently used type of measurement is level one because it is the easiest to measure, yet it provides the least valuable data. Measuring results that affect the organization is considerably more difficult. Thus, it is conducted less frequently although it yields the most valuable information.

Phillips (1996), who probably knows Kirkpatrick's four levels better than anyone, writes that the value of information becomes greater as we go up these levels of information: from reaction to results/impacts. For example, the evaluation of results has the highest value of information to the organization, while reaction provides the least information, although like any information, it can be useful too. Like most levels of information, the ones that provide the best value are often more difficult to obtain. Thus, we readily do the easy ones (levels one and two) and obtain a little information about the training efforts, while bypassing the more difficult ones (three and four) that would provide the most valuable information for the organization.

All four levels of evaluation may be useful for both formative and summative purposes. The first two levels of reaction and learning focus on the learning environment or experience and are captured at the close of training in the training setting by the facilitators. In contrast, the next two levels of behaviour and results focus on the transfer of training to the work environment which are captured in the work setting and require management involvement. As such, the first two levels are the most often examined by trainers and researchers because they are more immediate and often easier to measure. As mentioned earlier, the first level of trainee reaction is by far the most popular measure for those organizations that evaluate training. Therefore, this study will focus on the first two levels of Kirkpatrick's evaluation model which are namely reaction and learning.

Training Environment

Training Environment (TE) can be defined as the creation of virtual space where learning, assessment and interaction can take place in a very manageable way. Researchers such as Becker et al. (1968), Synder (1971) Dahlgren (1978) highlight that TE factors such as assessment methods and excessive course materials prove that they affect the trainees' performance. Ramsden (1992), Gow et al., (1994) and Sharma (1997) also reveal that the employee approaches to learn are influenced by the TE. Ramsden (1992), further reminds us that the TE can be defined as being the assessment methods, curricular and teaching methods, and, to a lesser extent, the atmosphere or *ethos* of the course, programme of study and institution. Sharma (1997) also takes note of the employees' or trainees' perception of these elements which can influence their learning.

In relation to class environment, Wooten (1998 and Brophy (1987) also report similar findings that students are more likely to want to learn when they appreciate the classroom activities. Therefore, expectancy theory also supports the inclusion of this variable. This includes appropriate use of class time as in time management, a caring instructor as in instructor's characteristics and good instructional materials. These factors should all increase the students' level of expectancy, thus increasing motivation. It is said that classroom learning environment is related to achievement goal theory of motivation.

Evidence that a substantial proportion of the variance in human behaviour can be accounted for by situational or environmental variables has been accumulating rapidly during recent years (Insel & Moos, 1975; Gunderson & Sells, 1975). As growing numbers of behavioural scientists have begun to examine empirically the relationships between environmental variables and human behaviour, the issue of how to conceptualize and assess environmental characteristics has been receiving increasing attention (Johannesson, 1973; Moos, 1973).

An approach employed by Moos (1973) to characterize and measure the psychosocial qualities of environments is based upon Murray's (1938) model for studying the interaction between personal needs and environmental stress. This conceptualization has been applied by Moos and his associates (Insel & Moos, 1974a) in the development of a series of Social Climate Scales for assessing the psychosocial characteristics of nine different environmental settings: (1) psychiatric wards, (2) community-oriented psychiatric treatment programmes, (3) correctional institutions, (4) military basic training companies, (5) university student residences, (6) junior and senior high school classes, (7) work environments, (8) family environments, and (9) group environments (e.g. social and treatment groups). These scales have been developed to assess expectations of what the particular environment has been like as well as perceptions of what the environment is actually like.

This study is part of a larger investigation undertaken to evaluate the effectiveness of training programmes attended by government employees. Since the focus of this research is on subsequent adjustment to training environment, the Work Environment Scale (WES) (Insel & Moos, 1974b) is selected from the set of Social Climate Scales for application to this setting. The objectives of this study are to develop factor analytically derived scales for the WES which could be used in a training environment and to compare these subscales with the original WES scales.

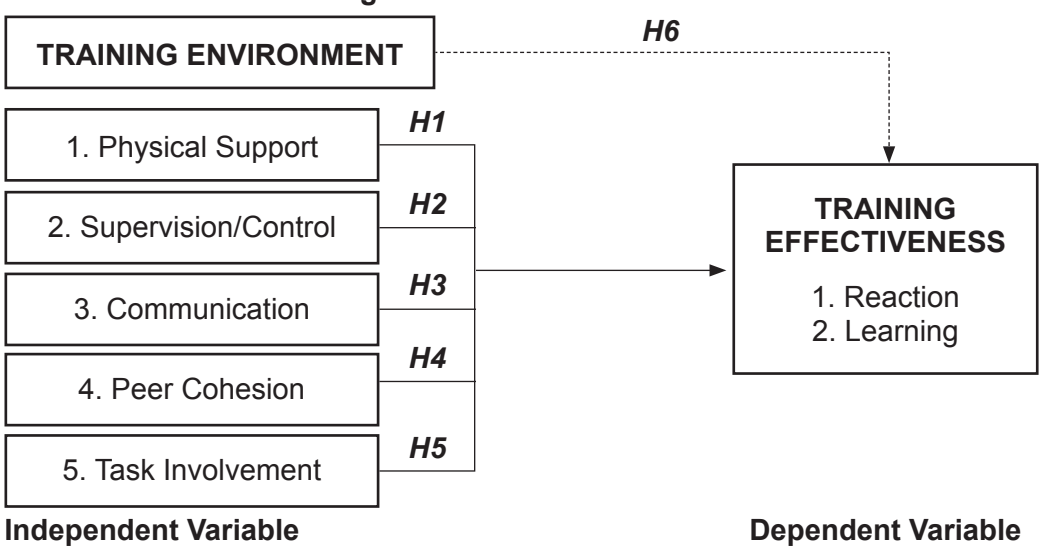
According to The Work Environment Scale (WES) manual, WES measures the social environment of all types of work settings. It comprises ten subscales or dimensions, which are divided into three sets: the Relationship Dimensions, the Personal Growth or Goal Orientation Dimensions and the System Maintenance and System Change dimensions.

The original Work Environment Scale (WES) is a ninety item, self-administered inventory that contains ten subscales designed to measure a subject's perception of his/her existing work environment. The WES was developed by Paul Insel and Rudolf Moos (1974b). According to Moos, the ten WES subscales reflect conceptually distinct aspects of the work environment. For this reason, the ten subscales have been integrated into the analysis because the three dimensions are not intended for statistical purposes (Moos, 1994b).

Research Model/Framework and Hypotheses Development

Based on the literature discussed earlier, researchers have developed a model for this study. The model is illustrated in Figure 1. The purpose of this research is to evaluate the relationship between training environment and training effectiveness. Training environment is treated as the Independent Variable (IV), while training effectiveness is considered the Dependent Variable (DV). IV consists of five dimensions: they are physical comfort, supervision, communication, peer cohesion and task involvement. On the other hand, DV is represented by two dimensions: reaction and learning.

Figure 1: Research Framework



From the model in Figure 1, six hypotheses are developed as below:

H1: There is no significant relationship between physical comfort and training effectiveness.

H2: There is no significant relationship between supervision and training effectiveness.

H3: There is no significant relationship between communication and training effectiveness.

H4: There is no significant relationship between peer cohesion and training effectiveness.

H5: There is no significant relationship between task involvement and training effectiveness.

H6: Training effectiveness is not significantly influenced by training environment.

Methods

Research Design

The design of this study is a quantitative survey study. It is carried out specifically among the employees of the Department of National Unity and Integration (Kedah) in the Prime Minister's Department.

Sample and Sampling Procedure

The target of analysis are employees, who work at the Department of National Unity and Integration (Kedah). They have been asked to fill up and answer the questionnaires to evaluate and prove whether there is any relationship between training environment and training effectiveness.

The sample used for this study consists of employees who work at the Department of National Unity and Integration (Kedah) who have undergone training in the organization. A target sample of 75 respondents is used. The only criteria of the sample selection is that the respondents are employees in the organization who have attended the training provided by the organization. To avoid potential management concerns about inconsistency in the feedback from employees, the respondents are selected through simple random sampling among the trainees. This form of technique offers the greatest generalization of the results for the entire workforce (Sekaran, 1992).

Instrument

The instrument used in this study is adopted by Work Environment Scale (WES) (Insel & Moos, 1974b). This will only apply in Part C. To gather the data from respondents, this study uses a questionnaire which consists of three sections, namely Part A, Part B and Part C.

Part A

This is the demographics section which deals with the personal and company information of the respondents. Selected demographics such as age, gender, education level and tenure in job are measured.

Part B

This consists of training effectiveness which is a dependent variable for this theoretical framework. Part B is adopted using the Kirkpatrick Model. Training effectiveness is measured using two subscales: namely Reaction and Learning.

Part C

This consists of training environment which is an independent variable used to measure the five dimensions of physical comfort, control/supervision, communication, peer cohesion and task involvement. Training environment is a multidimensional construct. Therefore, it is essential to evaluate each dimension in detail.

Findings

Background of the Respondents

Majority of the respondents are males (77.3%) and only 22.7% are females. They are aged below 25 (14.7%), 25 to 35 (25.3%), 36 to 45 (29.3%) and 46 to 55 (29.3%). Only one of them is aged above 55 (1.3%). More than half of the respondents only possess SPM, STPM/Diploma and other lower qualifications (74.7%). 22.7% of them are Bachelor Degree holders and 2.7% have Masters Degrees. It seems that most of them have been working at the Department of National Unity and Integration (Kedah) for more than 5 years and only 2 out of 75 respondents have been working at the Department of National Unity and Integration (Kedah) for less than 5 years. The complete profile of the respondents can be found in Table 1.

Table 1: Profile of the Respondents

Variabel	Frequency (N)	Percentage (%)
Gender		
Male	58	77.3
Female	17	22.7
Age		
<25 years	11	14.7
25 to 35 years	19	25.3
36 to 45 years	22	29.3
46 to 55	22	29.3
More than 55 years	1	1.3
Education *Level*		
SPM and below	18	24.0
STPM/Diploma	38	50.7
Bachelor Degree	17	22.7
Master's Degree	2	2.7
Tenure in Job		
Less than 5 years	2	2.7
5 to 10 years	38	50.7
11 to 15 years	17	22.7
More than 15 years	18	24.0

Descriptive Analysis of the Variables

It is found in Table 2 that the level of perception towards training effectiveness are at the moderate level (mean=3.06, sd=0.81). Respondents also display a moderate level of perception towards Reaction (mean=2.75, sd=0.75) and Learning (mean=3.49, sd=1.09). However, it is also revealed that their perception towards the training environment that they have been exposed to are high. Task involvement score the highest mean (mean=4.16, sd=0.84); compared to communication (mean=4.12, sd=0.88) and physical comfort (mean=4.05, sd=0.87). Control or supervision (mean=3.94, sd=0.94) and peer cohesion (mean=3.91, sd=0.74) are found to have lower mean scores.

The reliability acceptance level should be above .60 (Nunnally & Bernstein, 1994). Table 2 also summarizes the reliability according to the factor formed after factor analysis. Based on the outcome of the reliability analysis, all variables used in this study meet the acceptance level of Cronbach's Alpha of .80. Hence, all variables can be used for correlation and multiple regression analysis.

Table 2: Descriptive Analysis of the Variables

Variable	Mean	Std. Deviation	Level	Alpha
Training Effectiveness	3.06	0.81	Moderate	0.928
Reaction	2.75	0.75	Moderate	*0.871*
Learning	3.49	1.09	Moderate	*0.899*
Physical Comfort	4.05	0.87	High	0.904
Supervision/Control	3.94	0.94	High	0.923
Communication	4.12	0.88	High	0.953
Peer Cohesion	3.91	0.74	High	0.937
Task Involvement	4.16	0.84	High	0.915

Hypotheses Testing

H1: There is no significant relationship between physical comfort and training effectiveness

Table 3 shows the correlation matrix result to test the association between physical comfort and training effectiveness. The results suggest that physical comfort is significantly associated with training effectiveness at $r=0.651$, $p<0.01$. Similar results have also had been found for physical comfort with learning and reaction. Reaction is significantly associated with physical comfort at $r=0.548$, and $p<0.01$ while learning is at $r=0.627$ and $p<0.01$. Hence, the results give a significant statistical evidence to reject *H1*. Positive coefficient level indicates the positive relationship among the variables. A better level of physical comfort enhances the level of training effectiveness.

Table 3: Correlation Matrix between Physical Comfort and Training Effectiveness

Variable	Effectiveness	Reaction	Learning	Physical Comfort
Training Effectiveness	1			
Reaction	.900(**)	1		
Learning	.906(**)	.631(**)	1	
Physical Comfort	.651(**)	.548(**)	.627(**)	1

***Correlation is significant at the 0.01 level*

H2: There is no significant relationship between control/supervision and training effectiveness

The next hypothesis is to test the relationship between control/supervision and training effectiveness (*refer Table 4*). Correlation matrix analysis shows that control/supervision is significantly associated with reaction ($r=0.525$, $p<0.01$) and learning ($r=0.580$, $p<0.01$). Control/supervision also shows the strong relationship with overall training effectiveness ($r=0.610$, $p<0.01$). This evidence is useful to reject *H2*. A positive coefficient level indicates the positive relationship among the variables. A better level of control and supervision enhances the level of training effectiveness.

Table 4: Correlation Matrix between Control/Supervision and Training Effectiveness

Variable	Effectiveness	Reaction	Learning	Control/ Supervision
Training Effectiveness	1			
Reaction	.900(**)	1		
Learning	.906(**)	.631(**)	1	
Control/Supervision	.610(**)	.525(**)	.580(**)	1

***Correlation is significant at the 0.01 level*

H3: There is no significant relationship between communication and training effectiveness

Table 5 illustrates the relationship between learning effectiveness and communication in learning environment. Correlation matrix results show the significant relationship between communication and reaction ($r=0.406$, $p<0.01$) as well as communication and learning effectiveness ($r=0.537$, $p<0.01$). The result is also similar for the association between overall training effectiveness and communication. It is found that training effectiveness is significantly related to communication at $r=0.519$, $p<0.01$. Therefore, *H3* has also been rejected. A positive coefficient level indicates the positive relationship among the variables. A better level of communication enhances the level of training effectiveness.

Table 5: Correlation Matrix between Communication and Training Effectiveness

Variable	Effectiveness	Reaction	Learning	Communication
Training Effectiveness	1			
Reaction	.900(**)	1		
Learning	.906(**)	.631(**)	1	
Communication	.519(**)	.406(**)	.537(**)	1

*** Correlation is significant at the 0.01 level.*

H4: There is no significant relationship between peer cohesion and training effectiveness

The next hypothesis is to test the relationship between peer cohesion and training effectiveness. The correlation matrix result is shown in Table 6 which reveals that peer cohesion is strongly associated with training effectiveness (r=0.471, p<0.01). It shows that a higher perception towards peer cohesion during training will increase the training effectiveness. Therefore, this result will also reject *H4*. A positive coefficient level indicates the positive relationship among the variables. A better level of peer cohesion enhances the level of training effectiveness.

Table 6: Correlation Matrix between Peer Cohesion and Training Effectiveness

Variable	Effectiveness	Reaction	Learning	Peer Cohesion
Training Effectiveness	1			
Reaction	.900(**)	1		
Learning	.906(**)	.631(**)	1	
Peer Cohesion	.471(**)	.446(**)	.410(**)	1

*** Correlation is significant at the 0.01 level*

H5: There is no significant relationship between task involvement and training effectiveness

The training participants engage in the tasks given during training. The hypothesis developed earlier says there is no significant association between task involvement and training effectiveness. However, the correlation matrix result in Table 7 shows that task involvement is significantly associated with training effectiveness (r=0.544, p<0.01). Task involvement has also been found to have a significant association with reaction (r=0.492, p<0.01) and learning (0.492, p<0.01). Therefore, the hypothesis statement that there is no significant association between (H5) them is rejected. A positive coefficient level indicates the positive relationship among the variables. A better level of task involvement enhances the level of training effectiveness.

Table 7*:* Correlation Matrix between Task Involvement and Training Effectiveness

Variable	Effectiveness	Reaction	Learning	Task Involvement
Training Effectiveness	1			
Reaction	.900(**)	1		
Learning	.906(**)	.631(**)	1	
Task Involvement	.544(**)	.492(**)	.492(**)	1

*** Correlation is significant at the 0.01 level*

H6: Training effectiveness is not significantly influenced by training environment

The last hypothesis is to test the influence of the five training environment dimensions on training effectiveness in terms of reaction and learning. To test this hypothesis, multiple regressions are performed. This hypothesis attempts to test the regression model as below:

$$Y=\alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \ldots\ldots\ldots \beta_n X_n + e$$

Where:

Y = Dependent Variable (Training Effectiveness)
α = Constant
β = B value
X = independent variables (Training Environment Dimensions)
e = standard error

Results of multiple regressions are illustrated in Table 8. It is revealed that the five training environment dimensions significantly account for 44.3 percent of the variance, or training effectiveness (R^2=0.443, F=10.663, p<0.01). However, out of the five dimensions, only physical comfort is a significant indicator of training effectiveness (B=0.985, t=2.148, p<0.01), while the other dimensions are not significant. In addition, the overall results show that the five training environment dimensions significantly influence training effectiveness in terms of reaction and learning. Therefore, H6 will also be rejected. Physical comfort is found to have a significantly positive effect on training effectiveness. Any increase in physical comfort brings about a significant increase in training effectiveness.

Table 8: Effects of Training Environment on Training Effectiveness

Training Environment	B	t	Sig.
Physical Comfort	.985	2.148	.035
Control/Supervision	.256	.661	.511
Communication	-.018	-.068	.946
Peer Cohesion	-.733	-1.842	.070
Task Involvement	.099	.268	.790
R^2	0.443		
F	10.663**		

***Notes: p<0.01*

Table 9: Summary of Hypotheses Test

	Method	Results	Acceptance
H1: There is no significant relationship between physical support and training effectiveness.	Correlation	r=0.651 p<0.01	Rejected
H2: There is no significant relationship between supervision and training effectiveness.	Correlation	r=0.610 p<0.01	Rejected
H3: There is no significant relationship between communication and training effectiveness.	Correlation	r=0.519 p<0.01	Rejected
H4: There is no significant relationship between peer cohesion and training effectiveness.	Correlation	r=0.471 p<0.01	Rejected
H5: There is no significant relationship between task involvement and training effectiveness.	Correlation	r=0.544 p<0.01	Rejected
H6:Training effectiveness is not significantly influenced by training environment.	Regression	R^2=0.443 p<0.01	Rejected

The multiple regression analysis is adopted to answer H6. It shows the R-squared which is a significant value that will determine whether the hypothesis can be accepted or should be rejected. It is found that training environment factors contribute 44.3 percent to training effectiveness. Therefore, H6 will also be rejected.

Nearly a half of training effectiveness is influenced by the five dimensions of training environment. This is a significant value of explanation. The other half might be influenced by other factors and indicators that are not discussed in this study. The overall findings in Chapter 9 are similar to Becker et al. (1968), Synder (1971) Dahlgren (1978), Ramsden (1992), Gow et al., (1994) and Sharma (1997).

This present study provides evidence that support the previous study that uses the Kirkpatrick Model (Kirkpatrick, 1959a; 1959b; 1960a; 1960b) to evaluate training effectiveness. The findings of this study reveal that training environment is significantly associated with and influences training effectiveness. It gives a better understanding on how to organise training programmes that will have a significant effect on training participants. The study also gives the description of what the training providers should and should not do during the training.

In terms of managerial practice, this study gives the empirical evidence of the factors that influence training. It is useful for practitioners, academicians, as well as the training providers to understand the participants' behaviour. It also provides the important findings that are useful for decision making authorities and related parties.

Discussion and Conclusion

The purpose of this research is to study the relationship and effects of training environment on training effectiveness. Training environment is measured using five dimensions: they are physical comfort, supervision, communication, peer cohesion and task involvement (Insel & Moos, 1974b), while training effectiveness is measured using two dimensions: reaction and learning, based on the Kirkpatrick Model (Kirkpatrick, 1959a; 1959b; 1960a; 1960b).

The selection of these two dimensions is due to the first two levels of reactions and learning focus on the learning environment or experience and is captured at the close of training in the training setting by the facilitators. In contrast, the next two levels of behaviour and results focus on the transfer of training to the work environment which are captured in the work setting and require management involvement.

In order to achieve the research objectives, this study will have to answer the following research questions:

(a) Do training environment factors (physical comfort, control/supervision, communication, peer cohesion and task involvement) associate with training effectiveness?
(b) Do training environment factors (physical comfort, control/supervision, communication, peer cohesion and task involvement) contribute to training effectiveness?

This paper has successfully disclosed possible answers to research objectives and questions. It has been done using the popular measurement scale for both training environment (Kirkpatrick Model) and training effectiveness (Work Environment Scale). By using the appropriate data analysis technique such as correlation matrix and multiple regressions, this study has come up with answers to all the hypotheses developed.

This study has revealed some interesting results and clearly indicates that the majority of the respondents agree that they have obtained new knowledge and skills during the training. The findings show that a higher perception towards training environment by the participants will increase training effectiveness.

Six hypotheses are tested using an appropriate data analysis technique. The SPSS analysis output has been used as statistical evidence to reject or accept the hypotheses. A summary of the hypotheses test is shown in Table 9.

The correlation matrix is performed to test H1 to H5, showing 95 percent confidence level. All the results indicate the significant value of 'p' being less than 0.01, which is at 99 percent confidence level. Therefore, all H1, H2, H3, H4 and H5 are rejected. These findings are similar to Wooten (1998) and Brophy (1987). It seems that participants are more likely to want to learn when they appreciate the classroom environment and activities.

This current study contributes to confirm the results from previous research that applies the theory of training effectiveness in many disciplines and fields. Once again the Kirkpatrick Model is sufficient to use in predicting training effectiveness among trainees. It is obvious that the current needs and economic situation will have a substantial impact on training programmes which are important agents that can enhance an individual's knowledge, attitude and skills. It is hoped that through the implementation of various training programmes, an employee will view career development as a viable, practical and important vehicle to enhance self-development. Thus, this study has proven without a doubt that training is vital in boosting the morale, confidence and professionalism of Malaysian Civil Servants.

All in all, it is hoped that the findings and recommendations of this study would contribute towards the challenge of educating and training the Malaysian workforce effectively. There is no doubt that investment in training is a fundamental requirement for Malaysia to achieve Vision 2020.

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