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## THREE LEVELS AND SEVEN DIMENSIONS OF LEARNING ORGANIZATION: A REVIEW

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### Abstract:

Schools are an organization that requires a cultural process to preserve the development of knowledge among organizational citizens. Learning organizations are a culture that is very practical to practice in schools. Practicing of learning organizations in schools has been widely discussed in existing research. However, most of last research only discusses the level of learning organization as a whole. Therefore, this study was conducted to determine the level of practice of the seven dimensions of the learning organization, which have been divided into three levels, among 377 primary school teachers. This study was also conducted to identify the dimensions of more practiced learning organizations among teachers. This study is quantitative, using the survey method. The research instrument is a questionnaire consisting of two sections. A total of 43 items were adapted from the "Dimensions of Learning Organizations Questionnaire" instrument used for this study to evaluate each dimension in the learning organization, namely the communication system dimensions, networking system, empowerment, leadership for learning, continuous learning dimension, dialogue and inquiry, dimension and team learning dimension. The findings of this study showed that the organizational level ( $M = 4.55$ ,  $SP = 0.63$ ) and the dialogue and inquiry dimensions ( $M = 4.02$ ,  $SP = 0.66$ ) were at the highest level. Researchers hope that this study can serve as a guide and contribute to the development of an organization, especially schools.

### Keywords:

Dimensions of Learning Organization, Level of Practice, Primary School Teachers

## Introduction

Teachers who are human resources in the school organization need to be open and willing to take on the responsibility of being an educator and to be brave in the face of challenges that may arise, accept the changes that are happening, and always be enthusiastic about carrying out their responsibilities. Zhang and Zeller (2016) say that individuals who want to engage in the field should be prepared to face the obstacles that may arise. For example, teachers need to prepare a daily lesson plan in writing; however, they can now provide their lesson plans online through the portal. In addition, teachers have introduced online teaching techniques. Courses and meetings have also begun to be implemented online. This situation requires teachers to continually improve their skills and knowledge, particularly in technology. This is reinforced by the World Economic Forum (2023) report, which states that more than one billion workers from various sectors, including workers in education, need to improve their skills in line with the transformation of IR4.0. Indirectly, this situation has placed teachers in situations that require them to improve their skills to perform their assignments well constantly.

Due to the importance of teachers as a human resource in ensuring education sustainability, all parties, such as the Ministry of Education Malaysia (KPM) in particular, researchers, and practitioners in education, are now actively looking for factors that can help to produce quality teachers. Therefore, to produce teachers with positive features, schools need to implement new changes and implement a continuous learning process for the development of knowledge and skills (Odor, 2018). Schools also need to make an effort to disseminate new knowledge among other teachers at various levels, so that the school can continue to grow and adapt to future changes. Mansor (2013) in his study states that by learning, an organization can succeed and maintain its excellence.

An organization that promotes learning will provide an opportunity for its members to learn, and this will enable the organization to continue operating effectively, dynamically, and efficiently (Watkins & Marsick, 1996; Kools & Stoll, 2016). According to Njatrijani, Rahmanda, & Saputra (2019), the culture of an organization can improve performance in the aspects of customer interests, employees, and stakeholders. In the context of the school, the customer is a student, the employee is the teacher, and the stakeholders are the government and the KPM. To become an effective school organization, all members at each level, whether administrators, field leaders, teachers, or staff, need to work well together to resolve any issues that arise and help each other if needed. This requires all the citizens of the organization to improve their knowledge through continuous learning. All of this can be obtained if the school organization practices a learning organization approach.

Learning organizations have been widely discussed in research on overseas employment organizations and have shown their effectiveness, for example, in business (Soelton, 2023) financial organizations (Atiku, Kaisara, Kaupa, & Villet, 2022), as well as in education (Mushtaq & Malik, 2018). Learning organizations are committed to educating human resources on their potential and thus encourage them to implement changes through the learning process (Hadi, Juniawati, & Siswanto, 2018). Borisov and Stamenkova (2020) stated that learning organizations are organizations that produce, maintain, and disseminate knowledge and skills to maintain competitiveness and can continue to change.

Some researchers have suggested that the learning organization be practiced in the school organization if a school wants to succeed in this dynamic change cycle, as every change that has been made in all the systems requires all members of the organization to make improvements in themselves. Still, the skills of the next level of knowledge can develop their quality. This is supported by Romly & Ishak (2021), which states that if the school organization practices the learning organization, it will improve the quality of the teacher and the school will eventually.

A school that practices learning organizations can make changes to its organization and adapt to the needs of its teachers and school to the challenging environment, thereby changing consistently. Ghadermarzi, Ataei, Karimi, and Norouzi (2022) also stated that the practice of learning organizations can help school become more competent and survive in the face of changes in the educational landscape.

## Literature Review

### *Learning Organization*

(Brian) Joo and N. McLean (2019) define learning organizations as those with important organizational structures that can create an environment that stimulates knowledge and sound financial management. Slightly different from the definition given by Doyle and Johnson (2019) who states that learning organizations are an organization that has been designed by leaders with a vision focusing on the future of learning and aims to develop individuals, teams and organizations by starting a culture that requires technology, diversity and talent development to help the creation of knowledge and management to meet the needs of customers in a complex environment.

Although previous researchers have given many definitions, Fullan (2011) feels that the true meaning of the learning organization is still complex to interpret and understand because past researchers often interpret their own experiences and opinions. Ahmad and Hashim (2022) define a learning organization as a practice to develop knowledge within the organization, adapt to environmental change, and emphasize improving knowledge and skills at every level.

Based on the definitions provided by previous researchers, it can be concluded that learning organizations are a practice that emphasizes the learning process at every level to help improve the skills and knowledge of each member, thereby achieving the organization's shared vision.

### *Levels and Dimensions of Learning Organization*

There are three stages in the learning pyramid, namely the level of individual learning, the level of group learning, and the level of organizational learning (Senge, 1990; Watkins & Marsick, 1996). Each of these stages is represented by seven dimensions (Watkins & Marsick, 1996). The seven dimensions involved are the dialogue and inquiry dimension, the continuous learning dimension, the team learning dimension, the communication systems dimension, the empowerment dimension, the system networks dimension, and the learning leadership dimension.

### ***Individual Level***

The individual level is represented by two dimensions, namely the continuous learning dimension and the dialogue and inquiry dimensions. Watkins and Marsick (1997) explain that to achieve an adequate level of individual learning, an organization needs to provide or create learning opportunities and enhance communication and interaction among its members. In the context of teachers as one of the most important human resources in the school organization, learning at this stage is a teacher's ability, desire, and ability to learn. This learning process takes place in a variety of ways through experience, discovery, colleagues, problem solving, or environmental change (Ngann, 2016). Two dimensions represent individual levels:

- i. The dimensions of dialogue and inquiry are a culture of organizations/ schools to create opportunities for individuals to answer, to provide feedback, express their views, and evaluate the opinions given by others.
- ii. The dimension of continuous learning opportunities is an organization's efforts to encourage personal and career development.

### ***Group Level***

Team learning is intended to enhance the knowledge, skills, and competencies as outlined by Marquardt (1996). Pandey, Gupta, and Gupta (2019) argue that group stage learning is to foster the creativity of each member in the organization to be more responsive in an increasingly dynamic environment. For the group level, only one dimension is involved.

- i. Team learning dimensions are the encouragement given to groups of teachers who seek to learn and work together in carrying out their assignments to achieve school goals.

### ***Organizational Level***

Organizational learning is a skill that an organization has to produce, acquire, interpret, send, and share knowledge and skills to change its behaviour to convey new knowledge and perspectives to other members. Parallel to Watkins and Marsick (1993), learning takes place quickly at the organizational level through complex interactions and is a result of reciprocal, interactive, and collective experience. The Organizational level is a stage represented by four dimensions.

- i. The dimensions of the communication system include the existence of a platform that allows teachers to share information, skills, and knowledge to improve performance continuously.
- ii. The dimension of empowerment is a process of autonomy for teachers in terms of assignment and decision-making, as well as recognition of teacher initiatives.
- iii. The dimensions of the networking system are a reflection of the thinking and action to build a network between schools, communities, and local authorities.
- iv. Leadership for learning dimensions involves leaders supporting and thinking strategically in the process of learning in the organization/ school to lead to new changes.

The Ministry of Education wishes to achieve quality schools and student success (Kementerian Pendidikan Malaysia, 2012). So the process of achieving this goal requires the cooperation of all educators, especially those who serve in the school organization. By increasing the capacity of teachers through schools as a learning organization, this approach should be implemented so that these teachers can perform their tasks more efficiently and succeed in their tasks more effectively.

This is in line with the opinion of Welsh, Williams, Bryant, and Berry (2021), which suggests that schools become a learning organization, as each learning organization can help the school continue to grow better by engaging all staff to participate in the learning process. In addition, it also allows all schoolchildren to perform their tasks effectively and contribute to the success of the school (Aliazas & Chua, 2021). In addition, learning organizations are a tool that all schoolchildren need to adopt at every level to work together to improve their skills and knowledge through continuous learning (Prasetyo & Ilham, 2022).

Therefore, schools should practice new routines to become a learning organization to ensure organizational development and sustainability (Kim, Watkins, & Lu, 2017). Rapid changes in technology, economics, and communication are an unambiguous indication for school organizations to change existing practices to adapt to the current and future changes (Vijayabanu, Renganathan, & Govindarajan, 2015). The average scholar agrees that the practice in the learning organization enables school organizations to confront the changing era of globalization (Odor, 2018). This is a new reality in which teacher learning is essential so that teachers have the skills to adapt to the changes happening in the environment.

Despite the many benefits that school organizations can achieve by practicing learning organizations in the face of transformation and changes, there are still relatively few empirical studies on the implementation of school learning organization practices, and their findings are still vague (Stoll & Kools, 2017). Most of the previous studies also assess the level of learning organization as a whole and its relationship to several variables, such as school performance and leadership (Ahmad & Hashim, 2022). The learning organization can be divided into three levels, namely organizational, group level, and individual level (Senge, 1990; Watkins & Marsick, 1993). Each of these stages has its dimensions. Therefore, this study was conducted to study the perceptions of primary school teachers using the DLOQ instrument based on the learning organization model suggested by Watkins and Marsick (1997). The learning organization is divided into three levels.

## **Methodology**

### ***Design of The Study***

This study is a quantitative study with a survey design using a questionnaire to collect data from respondents, consisting of primary school teachers. The design of this study was chosen because it is more detailed, targeted, and provides greater confidence, and it can be generalized to the population you want to study (Ary, Jacobs, Irvine, & Walker, 2018).

### ***Sampling***

Primary school teachers in the state of Kelantan have been selected to represent teachers in Malaysia because all of these teachers are Malaysian government sector workers who serve under the same administration, the Ministry of Education Malaysia. These teachers have also received training and undergone professionalism development processes in the same teaching course. The number of teachers in the population ( $n = 16158$ ) is obtained from the Kelantan State Education Department.

Random Techniques have been used for this study. This sampling technique is used as it can be generalized to the real population. By carrying out the proper sampling techniques, researchers can improve the accuracy of the results, save on cost and time, and energy (Sekaran

& Bougie, 2016). The sampling table proposed by Krejcie and Morgan (1970) was used to determine the number of samples required. Based on the 95% confidence level and the total population  $n = 16158$ , the total sample required was 377.

Researchers have conducted multi-stage sampling to select a sample for this study, as conducted by Salkind (2012). The first stage is a random sampling in proportion to the sample, which is separated based on the group or zone. For this study, groups of teachers from 10 districts of Kelantan were divided into four zones (Zone A, Zone B, Zone C, and Zone D). The sample representing each zone follows the percentage of the teacher population. The advantage of this method is that each sample of each stratum will have the next representative to make it similar to the real population. Researchers have conducted multi-stage sampling to select a sample for this study, as conducted by Salkind (2012). The first stage is a random sampling in proportion to the sample, which is separated based on the group or zone. For this study, groups of teachers from 10 districts of Kelantan are divided into four zones (Zone A, Zone B, Zone C, and Zone D). The sample representing each zone follows the percentage of the teacher population. The advantage of this method is that each sample of each stratum will have the next representative to make it similar to the real population (Mohd Yusoff, 2022).

In the second stage, it is necessary to determine the number of teachers to be selected from the school involved. School selection is made in a systematic random sampling. The list of school names in each district will be marked with appropriate intervals. For example, Zone A has 30 schools, and only five schools are needed; then the remaining six intervals will be used. Schools in numbers 6, 12, 18, 24, and 30 will be selected as the centre to choose the sample at the third stage.

At the last stage of the third stage, again systematic random sampling is used to select a sample of teachers who will be involved in the study. The list of teachers from selected schools in the second stage is required to determine the appropriate interval. For example, school X has 100 teachers, and the number of samples needed is 20 people. Therefore, the five intervals will be used, and teachers located at numbers 5, 10, 15, and subsequent numbers will be selected as the study sample. All of these levels will be repeated in another zone until they get the required sample of 377 people. This sampling technique complies with random sampling features that allow a teacher to be selected as a fair sample of study (Ary et al., 2018; Salkind, 2012).

### ***Instrumentation***

The researcher chose to use the questionnaire form to collect the data needed to meet the objectives of the study. The use of the questionnaire form is very appropriate for this study as it can measure the attitudes, opinions, and achievements of multiple variables involved in the study. The instrument of this study is a questionnaire that uses a Likert scale from 1 (strongly disagree) to 5 (strongly agree). This questionnaire is divided into two sections, Part A containing 43 questions, and Part B containing demographic information, namely the gender, teaching experience, the latest school teaching experience, and academic qualifications. Table 1 shows the number of dimensions involved in three stages and the number of items per dimension. The researcher chose to use the questionnaire form to collect the data needed to meet the objectives of the study. The use of the questionnaire form is very appropriate for this study as it can measure the attitudes, opinions, and achievements of multiple variables involved in the study. The instrument of this study is a questionnaire that uses a Likert scale from 1 (strongly disagree) to 5 (strongly agree). This questionnaire is divided into two sections, Part

A containing 43 questions, and Part B containing demographic information, namely the gender, teaching experience, the latest school teaching experience, and academic qualifications. Table 1 shows the number of dimensions involved in three stages and the number of items per dimension.

**Table 1: Number of Items for Level and Dimension of Learning**

<b>Level/ Dimension</b>	<b>Number of Items</b>
<b>Individual Level</b>	24
Dialog and Inquiry	6
Continuous Learning	7
<b>Group Level</b>	5
Team Learning	6
<b>Organizational Level</b>	6
Communication System	6
Empowerment	13
Networking System	7
Leadership for Learning	6
<b>Total</b>	<b>43</b>

Source: Watkins and Marsick (1997)

Learning organization instruments developed by Watkins and Marsick (1997), specifically the Dimension of Learning Organization Questionnaire (DLOQ), were selected by the researcher for this study, as the study’s framework was based on the concepts introduced by Watkins and Marsick (1993). This instrument is also used in various study contexts. For example, a study conducted by Mokhtar and Ishak (2025) on local authorities in Selangor, in banking (Atiku et al., 2022), and no less in education (Ishak & Mansor, 2020).

Before conducting the study, all the items to be used were validated by five experts with a value (CVI = 0.98). According to Polit, Beck, & Owen (2007), the minimum value of CVI was 0.78, while Davis (1992) stated that the value of the CVI required for a good item was 0.80. An item is essential if the number of evaluators who rate the item as very important is greater (Lawshe, 1975). Suppose the value of the CVR obtained by the item is 1. In that case, this means that all the panel of evaluators have agreed to evaluate the item as very important and must have high content validity. Then this item will be maintained. Therefore, all items for this instrument have been maintained and may undergo a subsequent validity test.

The Interpretation of the mean level for this study was obtained by taking the lowest and highest mean values. The highest mean value is rejected by the lowest mean value and is divided by the rating selected by the researcher. This is based on the level category proposed by Nunnally (1978) and several previous researchers, such as Pallant (2020). Table 2 shows the mean score value for the level of learning organization.

**Table 2: Mean Values**

<b>Mean</b>	<b>Level</b>
1.00 – 2.33	Low
2.34 – 3.67	Moderate
3.68 – 5.00	High

**Data Analysis**

The findings of the questionnaire formed by the teachers were analysed using the Statistical Package for the Social Sciences (SPSS) 29.0. This study involves the use of descriptive statistics because the findings of the research can be considered as the entire data set. The use of descriptive statistics can help researchers obtain information more easily (Kurniawati, Widyastuti, & Noor, 2017). The purpose of this analysis was to explain the respondents' perceptions of the level of practice of the school's learning organization dimensions based on the percentage, frequency, mean, and standard deviation.

**The Validity and Reliability of The Instrument**

The validity process for this instrument has involved two linguists who conduct face validity and five experts from a public university who implement content validity. This study is an early review that is also a pilot study for real studies. All processes that take place to obtain the validity of the content of this item are consistent with the recommendations of Rubio, Berg-Weger, Tebb, Lee, and Rauch (2003). Effendi, Idris, Abdul Rahman, & Khairani (2017) and Rubio et al (2003) argue that generating a transparent quantitative method to select items will enable evaluating the variables and adding more items in the construction of a measuring instrument. To measure the validity of the measuring instruments that have been built, the validity Model proposed by Lawshe (1975) will be used. This instrument obtained CVI=0.97, and it follows the suggestion by According to Polit et al. (2007), the minimum value for the CVI is 0.78, while Davis (1992) also stated the required CVI value is 0.80.

The analysis results for the reliability of the item show that the alpha coefficient for three stages in the learning organization was 0.89 for the individual level, 0.90 for the group level, and 0.96 for the organizational level.

**Table 3: The Value Of Cronbach For Each Level Of Learning Organization**

Level	Cronbachs' Alpha	Number of Items
Individual level	0.89	13
Group level	0.90	6
Organizational level	0.96	24

**Findings of The Study**

Table 4 presents the distribution of respondents by gender, education level, service period, and teaching period in the latest schools.

**Table 4: Distribution of Respondents based on Demographics**

Respondent Profile		Frequencies	Percentage
		(N)	(%)
Gender	Male	93	24.70
	Female	284	75.30
Education level	Diploma	8	2.10
	Degree	337	89.40
	Master	32	8.50
	Phd	0	0
Service Period	1 to 5 years	7	1.90



	6 to 10 years	33	8.80
	11 to 15 years	94	24.90
	16 to 20 years	82	21.80
	21 to 25 years	60	15.90
	More than 26 years	101	26.80
Teaching period in latest school	Less than 5 years	133	35.30
	6 to 10 tahun	84	22.30
	11 to 15 tahun	76	20.20
	16 to 20 tahun	47	12.50
	More than 21 years	37	9.80

A total of 377 teachers were involved in this study, who were predominantly female (n = 284, 73.50%) and male (n = 93, 24.70%). These selected teachers also had various levels of education, from diplomas to bachelor's degrees and doctorates. Teachers with the most scholars involved in this study (n = 337, 89.40%) and the least are teachers with a bachelor's degree (n = 32, 8.50%).

In addition, these teachers also have different teaching experiences. Of the 377 respondents involved, teachers who served over 26 years old (n = 101, 26.80%) were the most common group of teachers. The least group of teachers is from teachers with less than 5 years of experience (n = 7, 1.90%).

Although the teachers involved mainly have more than 26 years of experience, their teaching experience in the latest school is different. Most teachers involved in this study have been at their latest post less than five years (n = 133, 35.3%), and the smallest group of teachers is those who have served more than 21 years in the school (n = 37, 9.80%).

**Table 5: Mean And Standard Deviation of Each Level And Dimension**

Level / Dimension	Mean	Standard Deviation	Level
<b>Individual Level</b>	3.86	0.61	<b>High</b>
Continuos learning	3.69	0.64	<b>High</b>
Dialog and inquiry	4.02	0.66	<b>High</b>
<b>Group Level</b>	3.92	0.67	<b>High</b>
Team learning	3.92	0.67	<b>High</b>
<b>Organizational Level</b>	4.55	0.63	<b>High</b>
Communication system	3.86	0.65	<b>High</b>
Networking system	3.83	0.70	<b>High</b>
Empowerment	3.58	0.69	<b>Moderate</b>
Leadership for learning	3.99	0.67	<b>High</b>
Total Mean	3.86	0.59	<b>High</b>

Overall, the practice of learning organizations is at a high level (M = 3.86, SP = 0.59), which shows that the culture of the learning organization has been practiced consistently and widely among primary school teachers in Kelantan. Each level of the learning organization is also at a high level, with the organization level, which is widely practiced, having the highest mean

value ( $M = 4.55$ ,  $SP = 0.63$ ), followed by group stages ( $M = 3.92$ ,  $SP = 0.67$ ). The latter is the individual level ( $M = 3.86$ ,  $SP = 0.61$ ).

Six of the seven dimensions representing the learning organization are also high, except for the dimensions of power, which are at a moderate level ( $M = 3.58$ ,  $SP = 0.69$ ). The dimensions with the highest mean value are dialogue and inquiry dimensions ( $M = 4.02$ ,  $SP = 0.66$ ).

### **Conclusion**

The study of “Three Levels and Seven Dimensions of Learning Organization” aims to evaluate the level of practice for each of the seven dimensions that have been divided into three stages in the learning organization based on the learning organization model proposed by Watkins and Marsick (1993) which states that learning organizations are constantly learning and capable of changing itself. This study is a quantitative study using the questionnaire form by modifying the DLOQ instrument (Watkins & Marsick, 1997). All data were analysed descriptively to evaluate the levels of each dimension.

The findings show that the level of learning organization at the individual, group, and organization levels is at a high level. The organizational level is the highest level of mean value, indicating that teachers can learn effectively within the organization. However, only six dimensions of learning organization are at a high level, with the dimensions of dialogue and inquiry having the highest level among the other dimensions. Teachers may feel their voices heard, and they have the opportunity to give their opinions within their organization.

One dimension is at a moderate level, which is the dimension of the power decline. This may be because the administrators are still careful to continue handing over the tasks without proper supervision, and the teachers may also have less confidence in performing the assigned tasks without administrative oversight. Watkins and Marsick (1996) note that administrators or principals give power and trust to teachers, enabling them to demonstrate and use their expertise, skills, and creativity to carry out their assignments.

The results of this study show that not all dimensions of the learning organization are thoroughly practiced. These findings can enhance our understanding of how a school organization works. In addition, the results of this study provide empirical evidence to support that the existence of a systematic and practical learning organization practice will help school organizations to excel. Practically, it can be used by school administrators, PPD, JPN, and so on, KPM as a guide to provide essential elements in learning organizations that can support teachers to make schools an effective and excellent organization in the world.

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