



## To What Extent Do Different Teaching Approaches Increase Student Learning Motivation During the Covid-19 Pandemic?

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**Abstract:** The medium of teaching and learning from face to face had to be conducted online will have an impact on students' learning motivation. To that end, an alternative approach is proposed, namely a different teaching approach that focuses on the teaching and learning of writing skills. Therefore, this quasi-experimental study was conducted, which is to detect the extent of learning motivation among form two students in learning writing skills. For this purpose, a set of questionnaire forms containing 32 items were distributed to students during pretest and posttest. Dependent sample t-test analysis showed no significant difference between the level of learning motivation during pretest and posttest,  $p = 0.304$ . However, when the mean score is observed, there was an increase of 0.14 (pretest,  $M = 3.54$ ;  $SD = 0.53$ ; posttest,  $M = 3.68$ ;  $SD = 0.73$ ). Although there was a very small increase in terms of mean score, it can be concluded that different teaching approaches have increased the level of learning motivation among the students studied when the mean score during pretest which was at moderate level has increased to high level of learning motivation during posttest.

**Keywords:** Learning Motivation, Writing Skills, Differentiated Learning Method, Covid-19 Pandemic, Alternative Teaching.

## 1. Introduction

The concept of differentiated teaching was introduced by Tomlinson (1999) who suggested that teachers adapt teaching methods by considering the diversity of students. This is because each student may have differences in terms of their readiness, interests and learning profile. This situation is in line with the aspirations of the Ministry of Education Malaysia contained in the Malaysian Education Development Plan (2012-2025) which aims to provide education to all students and no child is left behind in obtaining the education they deserve. Accordingly, differentiated teaching approaches referring to teaching methods that address and accommodate students' differences in terms of readiness, interest and learning profile (Sousa & Tomlinson, 2011) were proposed as alternative teaching approaches. This teaching method as an alternative to existing teaching methods aims to reach all students regardless of diversity with the belief that each student has their own potential and can succeed (Sousa & Tomlinson, 2011). A teacher who uses different learning methods in the classroom will take into account students' readiness, interests and learning preferences and produce different content (what needs to be learned), processes (how it will be learned) and products (learning outputs). This concept of different learning has been widely used in other countries (Chen & Chen, 2018; de Graaf, Westbroek & Janssen, 2019; Freedberg, Bondie, Zusho & Allison, 2019; Harmini & Effendi, 2018; Robinson, Maldonado & Whaley, 2014; Tomlinson & Imbeau, 2010; Wu, 2013).

Meanwhile, learning motivation is the physical driving force of a person to be able to perform learning activities and to add skills and experience (Chairhany, 2020). Motivation in teaching and learning is important because it will have an impact on achievement (Ishak & Talaat, 2020). Learning motivation is also said to be a major problem when conducting teaching and learning activities in the classroom (Shaari, Don & Daud, 2005). This is because motivation is able to motivate and direct a person as well as maintain behavior in a matter (Mok, 2008; Hassan & Mohd, 2004; Hashim, Razali & Jantan, 2004). Masri (2006) states that motivation is the drive in a person to do something with high enthusiasm, diligence, and patience in order to achieve goals at an excellent level.

## 2. Literature Review

Özer and Yılmaz (2018) conducted a study to investigate the effect of thinking styles based differentiated instruction on academic achievement, attitude and retention. The study used quasi-experimental research design and pretest/posttest control group model on vocational students in Turkey. They used Thinking Styles Inventory, developed by Sternebrg and Wagner (1992) to identify the students' thinking styles, the self-developed Vocational Foreign-II Achievement Test and Vocational Foreign Language Attitude Scale to assess the students' academic performance. The researcher differentiates the learning process by using entry point, learning centres, complex instruction, orbital studies and learning contracts during the whole spring semester. Delayed posttest was

conducted eight weeks after the intervention to measure the students' retention. The researcher used independent sample t-test to analyse the data. It was found that thinking style based differentiated instruction enabled the students in experimental group to be more successful in achievement test than the ones in control group. On top of that, this study found that thinking style based differentiated instruction enabled the students in experimental group to be more successful in retention test conducted eight weeks after the intervention. However, the study revealed that thinking style based differentiated instruction did not make a significant difference in attitudes of students in experimental group when compared to control group. In conclusion, Ozer and Yilmaz (2018) found that thinking styles based differentiated learning method affect students' academic achievements and memory retentions, but not attitude of the students towards the subject.

Chen and Chen (2018) conducted a study on the effect of differentiated instruction in Calculus academic achievement among Taiwan students. The study used quasi-experimental research design. They sampled 60 freshmen students from an army academy (30 experimental group; 30 control group). During the pretest, the students in both groups completed a Mathematics entry behaviour test as a pretest and completed a Calculus final exam, after 16 weeks of intervention. This study found that the application of Differentiated Learning Method (DLM) in Calculus classroom affect the students' performance. The students also reported in an anonymous questionnaire that DLM provide student-centred, fun, deep and meaningful learning as well as appreciate their talents, interests and preferences. Chen and Chen (2018) suggested future research to investigate the effect of DLM in primary and secondary classrooms.

Likewise, Mayed (2014) conducted a study to investigate the effects of differentiated learning method (DLM) on students' motivation and achievement in learning Arabic as foreign language. Mayed (2014) also used quasi-experimental and pretest/posttest research design. The study was conducted on high school students in a boarding school in Malaysia who take Arabic as foreign language. The researcher adapted an instrument from motivational questionnaires developed by Mori (2004) and Pinrich et al. (1993) to measure the students' motivations and a self-developed achievement test in Arabic language to measure the students' academic achievements. Unlike Özer and Yılmaz (2018), Mayed (2014) differentiated all elements in the learning process, which are content, process and product within 14 weeks of the semester. In short, this study found that DLM significantly affect the students' motivation and achievement in Arabic language writing, reading and grammar. This study suggested to test the effects of DLM on other subject such as Science and Mathematics.

Kamarulzaman, Azman and Zahidi (2015) conducted a study to investigate the effects of differentiated learning on academic performance and higher order thinking skills among gifted and talented students. This study examines the effectiveness of PERMATA Pintar Educational Program developed on 2010, to developmentally move the students from gifted to talented. The first cohort (160 students) of the PERMATA Pintar program which enrolled in January 2011 were chosen as the subject. The students were exposed to comprehensive curriculum that encompasses mainstream subjects, above grade level university Mathematics courses (Calculus and Algebra, two international languages

(French and Japanese), leadership program, portfolio development, research project, publication and co-curriculum activities throughout the semester. Three academic tests were conducted in March, June and September to measure their academic achievement. On top of that, open-ended survey and classroom observation were conducted to measure the students' abilities to question using HOTS and to argue and produce ideas that reflect HOTS. In short, the researchers found that, the PERMATA Pintar educational program that apply differentiated instruction improve students' academic achievement and HOTS among gifted and talented students. This study suggested to test the effects of differentiated instruction on mainstream students in government's public schools.

Based on the presented literature, it can be seen that DLM has been found to improve students' learning in terms of their academic achievement, motivation, higher order thinking skills and memory retention. However, some of the presented literatures sampled university and college students while some others sampled gifted and talented students in high school. Therefore, there are needs to investigate the effects of DLM on lower secondary schools. Although many literatures provide evidence for the benefits of DLM application in classroom, there are also literature that revealed the teachers' struggles of implementing DLM.

Ishak, Bakar, Abidin and Hamdan (2012) conducted a qualitative study to explore the challenges faced by the teacher in implementing DLM, particularly in gifted and talented education. Three English teachers were interviewed. Semi-structured interviews with open ended questions were conducted to gauge their perceptions based on their experience in differentiating their English lessons in classroom. The teachers revealed that they were struggling to come out with strategies, tasks and materials for DLM lessons. The preparation of DLM lesson was challenging as it is time consuming and involving rigorous efforts while their workload as a teacher is a lot. The teachers suggested that the implementation of DLM would be easier if there are standard procedure in differentiating lesson as well as prescribed list of strategies and materials specifically for respective subjects according to the textbook and standard learning outcomes. Therefore, there are needs to design DLM lesson plans for specific subject including the suggested materials, activities and tasks that are aligned with the textbook and standard learning objectives to reduce the teachers' workloads in preparing the lessons. As a result, all teachers would have an access and opportunity to differentiate their lessons.

Kaur (2017) tackled the problems with Malaysian classroom. In Malaysia government's public schools, teachers have to deal with large classroom size. The ration of students outweighs the teachers, resulted in the inability of the teacher to accommodate each student. On top of that, Malaysia has a diverse and heterogeneous group of students in every classroom. Every student has their own individual differences, added by their cultural and religious backgrounds as well as the abilities in learning. The abolishment of streaming system, which grouping the students into classes based on their academic performances, making the big and heterogeneous classrooms become more challenging for the teachers to deal with as now, they have to also accommodate students with mixed-abilities (Saali, Kamarulzaman, Kamarudin, Sharif & Esrati, 2017). Therefore, Malaysian teachers have to

expose and prepare themselves with the concept of differentiation to help them dealing with the reality of Malaysian classrooms which consist of big class size, heterogeneous and mixed-abilities students. In fact, the concept of differentiation is in line with the Malaysia Education Blueprint 2013-2025 which promotes 21<sup>st</sup> century teaching and learning (Kaur, 2017).

### 3. Methods

This study was conducted quasi-experimental when the group of students in the existing class could not be randomly distributed. All students in the class studied, were sampled for the study. The selection of schools was done randomly and the selection of classes was made after obtaining the consent of the teacher who taught and

met the required characteristic, namely teaching two classes with the same level of performance. After obtaining the teacher's consent, the teachers were briefed on the research conducted and trained using the different teaching approach modules developed for the experimental group and the existing approach modules for the control group.

This study used a non-randomized control group design, pretest and posttest design (Ary et al., 2009). The research period was 12 weeks based on many past researchers who suggested that investigating the effects of treatment should take at least eight weeks and the gap to test memory retention should take at least four weeks (Ary et al., 2009).

**Table 1. Non-randomized Control Group, Pretest and Posttest Design (Ary et al., 2009)**

Group	Pretest	Treatment	Posttest
Experiment	$Y_1$	$X_1$	$Y_2$
Control	$Y_1$	$X_2$	$Y_2$

To that end, the students of the experimental group have learned writing skills using different teaching approaches, while the students of the control group have used the existing teaching approaches. Both groups of students used modules developed by researchers. In the first week, both groups of students were given a set of questionnaires to measure the level of learning motivation before the treatment was given. This pretest was conducted to obtain the equivalent level of motivation of these students ( $Y_1$ ).

Then, treatment of different teaching approaches ( $X_1$ ) and control of existing approaches ( $X_2$ ) for five weeks was given in the teaching and learning of writing skills. In the seventh week a learning motivation questionnaire was again distributed to both groups of students to detect any changes in the effect of treatment ( $Y_2$ ) given. The eighth to eleventh week is a period of calm or rest. This period was used to test whether students still remember the teaching and learning of writing skills using both modules developed. After this period, again a learning motivation questionnaire was distributed as shown in Table 2.

**Table 2. Research Implementation Period**

G	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12
E	$O_{1.1}$	Treatment of Differentiated Learning Method					$O_{2.1}$	4-week gap to test memory against past teaching and learning				$O_{3.1}$
C	$O_{1.1}$	Control of Existing Teaching Approaches					$O_{2.1}$					$O_{3.1}$

The measurement of this learning motivation variable was modified based on a questionnaire developed by Meyad (2014). There were 32 items with three negative items (item 10, item 18, item 27) and the scale used was a five-point Likert type ordinal scale, i.e. 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree and 5 = strongly agree. Based on the pilot study, this learning motivation measure has a high reliability value (0.91). Therefore, this questionnaire is suitable to be used to measure the variables of learning motivation among form two students on the aspect of Malay language writing skills.

However, for the purpose of this writing, only changes in the level of learning motivation of students of the experimental group will be discussed without making comparisons with the control group. Students of this experimental group before being given different teaching approach treatment, were differentiated according to their learning diversity, i.e., either visual, auditory, or kinaesthetic. The questionnaire used contains 30 items and modified from a questionnaire developed by Chislett and Chapman (2005). The findings of the study found that 9 students in the category of visual learning, 14 people in the category of auditory learning and 9 people in the category of kinaesthetic learning. Therefore, different learning approach modules have been developed according to the way these students learn.

Due to the fact that at the time of this study, Malaysia was still conducting online teaching and learning, the implementation of this experiment also had to be modified according to the current situation. However, to ensure that this study has high validity, the external variables that are expected to interfere with the experiment have been controlled optimally. Teachers and schools have also cooperated fully throughout this research. The teacher was given a detailed explanation and understood the implementation of this experiment.

Questionnaires also could not be distributed directly to students. To ensure the smooth running of the data collection process, the help of teachers is needed to ensure that students answer this questionnaire for all three stages of the test. This questionnaire has been created in the form of a Google Form. Therefore, the teacher will share the link of this questionnaire to the students according to the research implementation period supplied to the teacher.

For the purpose of discussing the findings of the study in this article, data from the source of this questionnaire were analysed using Statistical Package for the Social Sciences (SPSS) version 23. Analysis of dependent sample t-test was used to identify whether the changes in the level of learning motivation among students effect different teaching approaches after five weeks of experiments were conducted. Whereas, descriptions based on mean scores and standard deviations were used to detect changes in motivation levels based on each item.

#### 4. Results

A discussion of these findings was made based on changes in mean scores and standard deviations on each item contained in the learning motivation questionnaire. Whereas, to explain the change, statistical analysis of dependent sample t-test was used.

**Table 3. Mean Scores and Standard Deviation of Learning Motivation Items**

No.	Item	Pretest		Posttest	
		Mean	SD	Mean	SD
1	I enjoy learning Malay	3.88	1.01	3.94	1.08
2	Learning Malay is like a hobby for me	3.06	1.01	3.34	1.07
3	I like learning Malay	3.66	1.04	3.91	1.06
4	Malay is one of the important subjects	4.13	1.04	4.19	0.90
5	Malay is useful to learn	4.19	1.02	4.13	0.98
6	I try to study hard in Malay class	3.91	1.00	3.94	0.98
7	I want to learn Malay because it will help me in business in the future	3.63	0.83	3.97	1.12
8	Learning Malay is important because it can broaden my perspective	3.59	0.84	3.84	1.22
9	Learning Malay is important because it can make me a more knowledgeable person	3.88	0.94	3.94	1.16
10	I study Malay simply because it is a compulsory subject	3.00	1.14	2.91	1.42
11	I study Malay because I want to get a good grade	3.94	0.84	4.13	0.94
12	I learn Malay because it helps me understand Malay books and movies	3.78	0.91	3.94	0.95
13	I am learning Malay because it will help my future career	3.81	1.00	3.94	1.08
14	I learn Malay based on a pre-planned schedule	2.97	0.93	3.50	1.02
15	Although Malay homework is a bit tiring, I still try my best to complete it	3.67	0.98	3.66	0.97
16	I do Malay assignments according to a pre -planned schedule	2.97	0.82	3.66	1.10
17	Although there is no homework, I try to learn Malay outside of class time	3.13	0.79	3.19	1.03
18	I do Malay assignments solely so as not to fail	2.75	1.08	2.84	1.32
19	I am actively involved in Malay language classes	3.41	0.91	3.63	1.10
20	I spend more time learning Malay than other subjects to achieve success	2.97	0.82	3.25	1.11
21	Success in Malay requires me to sacrifice other activities that I like to do	3.16	0.95	3.25	1.30
22	I have to sacrifice a lot to succeed in Malay Language	3.38	1.04	3.59	1.01
23	To succeed in Malay, I need to spend a lot of time learning	3.59	0.71	3.53	1.08
24	I expect to be successful in Malay language	3.69	0.86	3.59	1.01
25	I believe I can get an excellent grade in Malay	4.03	0.82	3.78	1.04
26	Having considered the difficulty of the Malay language and the skills I have, I think I can do my best in this subject	3.44	0.91	3.69	1.06

27	I am worried that I may not be able to get good results in Malay	3.13	1.26	3.41	1.16
28	I am sure I can understand the most difficult things or materials in Malay	3.19	0.74	3.69	1.00
29	I am confident that I can understand the basic concepts taught in the Malay language class	3.37	0.91	3.31	1.15
30	I am confident that I can understand the most complex grammatical structures in Malay class	3.34	0.79	3.31	1.15
31	I am confident that I can do my best job in Malay assignments and tests	3.81	0.78	3.62	1.16
32	I can definitely master the skills taught in the Malay language class	3.91	0.93	4.00	0.98
<b>Overall</b>		<b>3.54</b>	<b>0.53</b>	<b>3.68</b>	<b>0.73</b>

In total, there were 25 items that experienced an increase and only 9 items experienced a decrease after five weeks of different teaching approaches were conducted. Based on the findings of this study, it can be observed that the students admit that they have fun and love learning Malay so much so that some make this subject as their hobby. In fact, after five weeks of different teaching approaches, students became more aware and agreed that they were learning Malay not just because this subject is a compulsory subject.

Students were found to try to study this subject diligently because they knew its importance. Students are aware that among the importance of learning this subject and in particular writing skills is to assist in business affairs, broaden their views and make them more knowledgeable as well as for future career needs.

Students acknowledge that in order to be successful in this subject, they study and create assignments based on a pre-planned schedule. In fact, it requires them to study this subject outside of class time. In addition, they are also actively involved in the classroom and are willing to spend more time to learn this subject than other subjects.

With this effort, students are confident that they can do their best in this subject. But at the same time still worried if they don't get good results. This situation proves that the students studied have the motivation to learn despite changes in the medium of teaching and learning.

## 5. Conclusion

It can be concluded that the appropriate teaching approach is able to increase the motivation to learn among students even if they have to learn from face to face to online completely. Although the statistical analysis of t-test for the dependent sample showed no significant difference in the level of learning motivation among the form two students who were the sample of this study, but there was a change in the mean score during pretest and posttest. It was found that before the treatment of different teaching approaches was carried out, the mean score of learning motivation of these students was at a moderate level. However, after five weeks of different teaching approaches were used to teach Malay language subject writing skills, it was found that the level of motivation of the students was at a high level. This was evident when out of 32 items asked in the questionnaire, a total of 25 items experienced an increase in mean score and only 9 items experienced a slight

decrease in mean score value. Thus, it can be concluded that different teaching approaches have increased the level of motivation among the students studied.

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