The Effects of Tiered Tasks on Students' Learning Achievement Across the Students' Levels of Readiness

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Abstract

Numerous studies have been conducted to investigate the effects of applying tiered assignments in the mixed-ability English as a foreign language classroom. Most of the studies were focused on students' academic performance. There are still limited studies on the effects of tiered tasks on students' learning achievement across the students' levels of readiness since the implementation of tiered assignments in differentiated learning at Kurikulum Merdeka. So, this study was aimed at investigating the effects of using tiered tasks on students' learning achievement across the students' readiness levels in the Advanced English class pace F at SMAN 2 Lintau Buo. For the Advanced English class pace F, the tiered instructions were created to correspond with high, intermediate, and low levels of students' prior knowledge. It involved one class as an experimental group and the other as a controlled group. The experimental class was given tiered tasks, and the other class used universal learning designs. The result of the study showed that there was a significant difference in scores between the students who received tiered tasks and those who did not receive tiered assignments. The high readiness students got has higher mean after they were taught by using tiered task. However, the same case cannot be said to the intermediate and low readiness students. Through this research, it became clear how important it is to have a strong understanding of the subject matter and to be aware of a variety of learning activities that can be adapted to the readiness levels of the students' prior knowledge

Keywords: tiered task, students' learning achievement, the students' levels of readiness

Introduction

Tiered tasks have been widely used as a method of instruction for the last decades (Richards & Omdal, 2007; Pourdana & Rad, 2017; White & Vibulphol, 2020; Sanchez, 2022; Viegas, 2023; Ketsyk-Zinchenko, 2023; Rafi & Pourdana, 2023; Lombarkia, 2023), but there has been little experimental research concerning the effectiveness of this method of instruction in relation to students' levels of readiness of students' background knowledge about the topics. Since the use of tiered tasks was recently implemented in Kurikulum Merdeka, doing research in this area is important in order to validate the use of tiered tasks as an effective method to facilitate students' differentiated learning abilities.

Because every student learns at a different pace and has very different abilities, Kurikulum Merdeka divides the students into some paces from elementary school until high school. Despite coming at the same pace, the students differ greatly in many ways. Students with recognized learning

disabilities, highly advanced students, motivated and unmotivated students, students meeting and failing grade level expectations, students with a wide range of interests and preferred learning styles, and students who fit into two or more of these categories will all be found in the same class (Tomlinson, 2017).

Within a class, student differences in pace and ability can range from little to significant, and these variations can be influenced by the curriculum. Because of this variety, it can be exceedingly difficult for children to learn in a homogeneous classroom. As a result, teachers must differentiate their instruction so that all students can succeed to the best of their abilities. For challenges to be and stay encouraging, they must be at the right degree of difficulty: Too-easy activities grow monotonous, while too-difficult tasks frustrate the students. Tomlinson (2017) argues that there were negative consequences when academic assignments were not appropriately matched to readiness levels. Students lose interest in assignments that are overly easy. Task difficulty has a negative impact on students' achievement and self-worth.

Tiered assignment is determined by some factors, such as product, process, and content (Tomlinson, 2017). After completion of a unit of study, teachers who differentiate their tasks give their students multiple opportunities to showcase their knowledge, such as through written reports or videos, but they still evaluate the same concept or skill for every student. When doing this, the teacher aims to provide clear instructions, design a task that mirrors real-world applicability, and make the resulting assignment tough but not so complex or difficult that the students are unable to do it on their own. Along with analytical, creative, and practical possibilities, teachers should also offer visual, aural, and kinesthetic options. Tier grouping according to readiness level, learning profile, and student interest was among the several methods that Sanchez (2022) suggested for implementing tier groups. Three stages are created for children based on their preparedness level: under the grade level, at the grade level, and above the grade level. With courses tailored to each student's unique needs and talents, the teachers would use assessment results to determine which about the three tiers that students would be placed in.

This sight is in line with the six stages of learning according to Bloom's taxonomy, ranging from the most fundamental (recalling facts) to the most sophisticated (evaluating material). For example, the teacher usually designs three levels of activities when creating a tiered assignment. She may create exercises that test students' knowledge and comprehension at the lowest level, their application and analysis skills in the medium group, and their capacity to synthesize and evaluate the material in the high group. L2 teachers set up two or more formal instructional levels or tiers to differentiate instruction for each instructional idea according to students' existing proficiency levels. This is a defining characteristic of differentiated instruction practice (Lindner & Schwab, 2020; Pourdana & Tavassoli, 2022). This allows teachers to give challenging assignments to students with higher ability levels while giving simpler or less challenging versions of the identical activities to students with middle and lower ability levels. As stated differently, the assignments are designed or arranged based on the students' cognitive abilities (Brant et al., 2020).

According to Tomlinson (2017), students are considered ready when they possess a certain understanding or skill. It speaks to a person's mental capacities and aptitudes within a certain educational setting. The primary goal of differentiating instruction based on preparedness is to ascertain learners' prior knowledge. Students' preparedness levels can be ascertained through diagnostic testing. Subsequently, an educator could employ this data to distinguish between content, procedure, and product, or any mix of the three. The students who are less prepared often need more support, more practice chances, and more regulated activities. On the other hand, children with advanced preparedness usually require less practice and can handle more difficult, abstract tasks. Differentiating instruction based on students' readiness is therefore very beneficial in mixed-ability classes since it gives children additional learning opportunities to comprehend the material.

The implementation of tiered tasks based on the students' levels of readiness affected their learning achievement. The theory of learning achievement explains how students are driven to learn and how various motivational factors result in various learning objectives (Dawe, 2020). EFL has long been interested in ways to improve the learning process and the learning results of the students (Hidalgo, Escudero, Villacís, & Varela, 2021). Therefore, this study investigated how the tiered tasks affected the students' learning achievement across their levels of readiness.

Methods

The method used to get the data for this study is an experimental design. One class is an experimental group, and the other is a control group. The experimental class was given tiered tasks, and the other class used universal learning designs. This was done in order to see the effect of tiered task and its different with conventional strategy.

Research design

In the pre-experimental stage, each participant had their general skills and prior knowledge on the subject matter of the following units evaluated. The tiering designation assessment was the name given to this process. Based on this evaluation of their prior knowledge of topics, the treatment students were split up into three subgroups and given tiers of instruction. The students in the treatment classes were assigned to one of three instructional subgroups based on the results of their assessments. The tiering designation assessment was completed by the members of the control group. In the post-experiment phase, their findings were used for comparative analysis. Every student finished a pretest on the topic before instruction began. After following the pretest, all of the students received instructions about the topic, which ended with a posttest.

Research site and participants

The participants of this study were the members of the entire class of XI F2 and XI F4 of SMAN 2 Lintau Buo who chose advanced English as one of their chosen subjects. All of the students were 67. The members of class XI F2 are 34 students, and the members of class XI F4 are 33 students. The reason for choosing these classes is because the researcher is the teacher of these two classes. The population of this study came from different skills and different learning experiences. Even though advanced English was the chosen subject, the students' abilities varied. It was hypothesized that by offering tiered assignments on similar ideas, teachers could increase the chances that their students would learn the content, given that the students had varying levels of academic and linguistic proficiency.

Data collection and analysis

The data about The Effects of Tiered Tasks on Students' Learning Achievement Across the Students' Levels of Readiness was collected from some tests given. A tiering designation assessment was conducted with the students according to their levels of readiness. The lower ability was those who scored under 61% of the assessment (T1). The intermediate level (T2) were those who got scores from 61% up to 80%, and the high level (T3) were those who got scores above 80%. These classifications were based on the standards decided by the teacher at the beginning of the academic year. After the students are grouped into their tiers, the teacher gives the students tiered assignments, but not for the control group. They are also grouped into three levels of ability, but they are not given tiered tasks.

The data is analyzed by comparing the scores of the experimental groups and the scores of the control group. A two-way factorial design ANOVA, or regression analysis (Hicks, 1973; Hicks & Turner, 1999; Trochim, 2006), is often used in experimental research designs when subjects are randomly assigned to different conditions and the goal is to compare the means of the conditions. In order to account for the analysis of unequal groups in calculating means, a least squares means regression is typically conducted after an ANOVA has been used to identify the variables of interest.

In statistics, regression analysis is a mathematical technique that looks at the relationship between the independent and dependent variables (Dalal, 2007; Lewicki & Hill, 2006). An equation that fits a straight line across a set of points is the output of linear regression, which represents the relationship between the dependent and independent variables (Dallal, 2007; Lewicki & Hill, 2006). There are various methods for estimating the regression equation's components or parameters. Regression models in general employ the least squares mean (LSM) approach (Hicks & Turner, 1999; Maxwell & Delaney, 1999). The goal of the straightforward linear regression technique known as "least squares means" is to reduce the total squared differences, or residuals, between the dependent variable's actual and predicted values (Levine & Stephan, 2005).

Result and Discussion

Two-way ANOVA is used to answer the three research questions. Normality and Homogeneity test are carried out prior to the analysis, and the results are shown below:

Table 1
Tests of Normality

Kolmogorov-Smirnov[a]			Shapiro-Wilk		
Statistic	df	Sig.	Statistic	df	Sig.
0,197	118	0,102	0,899	118	0,200

a. Lilliefors Significance Correction

It can be seen that the sig.value is bigger than the alpha (0.102>0.05). This means that the data was distributed normally. Furthermore, the data was also homogeny, which can be seen on the table below:

Table 2
Levene's Test of Equality of Error Variances[a,b]

Levene Statistic	df1	df2	Sig.
1,439	11	106	0,166

The sig.value also bigger than alpha which means that the data is homogeny.

Furthermore, the result of two-way ANOVA revealed 3 facts. First, there is significant effect of using tiered task toward students learning achievement. Second, there is significant effect of the level of students' readiness toward their learning achievement. Third, there is significant different of students' learning achievement who were taught by using tiered task and those who were not. It can be seen from the table below:

Table 3
The result of two-way ANOVA

Source	df	F	Sig.
Pre_Post_Tiered_Task	1	104,635	0,000
Readiness	2	38,061	0,000
Cont_Exp	1	0,013	0,010

The sig.value of before and after getting treatment of tiered task is lower than the alpha (0.000..<0.05). This means that there is significant effect of using tiered task toward students learning achievement. The sig.value of the students' readiness level also showed that there is significant effect of using tiered task across students readiness toward their learning achievement (0.000..<0.05). Lastly, there is significant different of students' learning achievement between the students who taught by using tiered-task and those who were not, since the sig.value is smaller than alpha (0.010<0.05)

Furthermore, tiered task is better when it is taught to the students who has high readiness compare to students who has intermediate or low readiness. It can be seen on the following table:

Table 4
Students' Readiness

Dependent Variable: Learning_Achievement

Readiness	Mean	95% Confidence Interval

		Lower Bound	Upper Bound
High	80.625	76.439	84.811
Intermediate	71.987	68.455	75.520
Low	54.206	49.759	58.653

It can be seen from the table above, that the high readiness students got has higher mean after they were taught by using tiered task. However, the same case cannot be said to the intermediate and low readiness students.

Conclusion

In conclusion, this study provides evidence that there is a considerable effect of implementing tiered tasks on student learning achievement. The considerable value of the students' readiness level also shown that implementing tiered tasks across students' readiness levels had a major effect on their learning outcomes. Then, there is a significant difference in student learning achievement between students who were taught using tiered tasks and those who were not.

Furthermore, tiered tasks work better when taught to students with high preparedness versus students with intermediate or poor preparation. Students with strong readiness had a higher mean after being taught utilizing tiered tasks. However, the same cannot be stated about intermediate and poor readiness students.

Overall, this study demonstrates that by utilizing tiered tasks, educators can better meet the diverse needs of their students and create a more engaging and effective learning experience. It is recommended for educators to implement tiered tasks in their instructional practices to promote inclusivity and improve learning outcomes for all students. Further research is needed to explore the reasons why tiered tasks cannot work well in increasing students' academic achievement for students who come from intermediate and low readiness ones.

Acknowledgments

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