

MULTIPLE INTELLIGENCES ON STUDENTS' LEARNING OUTCOMES: DIFFERENTIATED LEARNING CONTEXT

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ABSTRACT

This study explores the impact of various intelligences, learning styles, and linguistic abilities on English language proficiency among junior high school students in a differentiated learning context. Drawing on Howard Gardner's theory of multiple intelligences and previous research, this qualitative research aimed to investigate whether students' interests, motivation, and cognitive profiles influence their language learning outcomes. Data were collected through questionnaires and analyzed manually using tables. Findings reveal a significant correlation between students' interests, learning styles, linguistic intelligence, and English proficiency. While some students demonstrate exceptional performance, others exhibit diverse learning preferences and intelligence, challenging traditional notions of language acquisition. The study underscores the importance of differentiated instruction tailored to individual needs and preferences for optimizing language learning outcomes.

KEYWORDS:

Multiple Intelligences, Learning Outcomes, Differentiated Instruction, Students' need, Learning Style, Learning Interest

INTRODUCTION

Individual variances in cognitive capacities are just one of the many variables that impact the intricate process of language acquisition (Fathman, 1976). The many intelligence ideas by renowned scholar Howard Gardner have attracted much interest in educational settings. Gardner states that people possess various kinds of intelligence including musical, linguistic, spatial, bodily-kinesthetic, logical-mathematical, interpersonal, intrapersonal, and naturalistic intelligence. These intelligences influence people's perception, processing, and acquisition of knowledge in various fields (Gardner, 2017).

Knowing the function of multiple intelligences in the context of language learning is essential for creating instructional strategies that meet students' various demands and abilities (Ahmad, 2022). Linguistic intelligence, one of Gardner's multiple intelligences, is especially important for language learning since it is demonstrated by competence in language-related tasks like reading, writing, and verbal communication (Gardner, 2017). It is yet unknown, nevertheless, how the various intelligences of pupils affect their English language learning skills and whether some intelligence is more advantageous than others in language acquisition. In the context of English Language Teaching (ELT), the idea of multiple intelligences has been thoroughly investigated and explored in several studies.

Research suggests that the primary intelligences that significantly impact and assess achievement in the education system are not a combination of logical-mathematical and linguistic-verbal abilities; but rather solely logical-mathematical intelligence. Additionally, the presence of multiple dominant intelligences can indicate student success in school (Yavich &

Rotnitsky, 2020). Besides that, Abenti (2020) has summarized that students can demonstrate intelligence in various ways. Each individual may possess a unique combination of these intelligences, and their strengths may lie in different areas. These findings underscore the importance of recognizing and valuing students' diverse forms of intelligence as this understanding can inform more inclusive and effective educational practices.

Improving student learning results, Arnold & Fonseca-Mora (2004) investigated how multiple intelligence theory could be used for foreign language acquisition, particularly in the setting of English as a Foreign Language (EFL) classes. They made the case that the application of multiple intelligences theory to foreign language learning, particularly in the context of English as Foreign Language (EFL) classrooms, was also investigated by Arnold & Fonseca-Mora (2004). They made the case that combining multiple intelligences in language instruction could result in more successful learning outcomes. Furthermore, a study on the use of multiple intelligences in literature instruction was carried out by Oprescu & Oprescu (2012), who discovered that this method could be useful in inspiring students and boosting their interaction with literary texts. Madkour & Mohamed (2016) have contributed valuable insights to English language teaching by highlighting the significance of considering students' multiple intelligences in instructional design and pedagogical practice. Their research underscored the potential of intelligence profiling to optimize language learning experiences and outcomes among college students.

Moreover, Huang (2017), in his/her study, has shown that foreign language learning positively correlates with musical, linguistic, and bodily-kinesthetic intelligence. In addition, four categories of intelligence—verbal, intrapersonal, interpersonal, and logical—were discovered to be highly predictive of L2 learners' comprehension of speech-act pragmatics. The results showed that verbal intelligence was the best predictor among them, with intrapersonal, interpersonal, and logical intelligence coming in that order. Nonetheless, naturalistic, melodic, existential, visual, or kinesthetic intelligence had no discernible impact on L2 pragmatic performance (Sarani & Malmir, 2020). Kurniawan et al. (2023) discovered significant relationships between each category of multiple intelligence and language learning techniques. Except for social strategy, linguistic, logical, and musical intelligence showed moderate to weak connections. Furthermore, there were moderate to weak connections between the various strategy applications and visual intelligence. Kinesthetic intelligence, however, was solely correlated with compensatory strategies and memory. Many studies have shown a positive correlation between students' multiple intelligences, especially linguistic and verbal intelligence, and learning outcomes.

However, Sogutlu (2018) found the opposite in most studies. The study found significant, if unfavorable, relationships between students' interpersonal and physical intelligences and grammar proficiency. Remarkably, no correlation was found between the students' intelligence profiles and their reading achievement. On the other hand, logical intelligence showed a positive link with vocabulary, whereas interpersonal and physiological intelligence showed negative correlations. So, it is interesting to explore how multiple intelligences affect the students' learning outcomes. It is also mushrooming to see whether or not there is another aspect – students' diversity, including learning style and the student's interest in learning English – that influences students' learning outcomes in English language learning, especially in differentiated learning in the Indonesian context.

This study explores how various intelligences affect language learning results, emphasizing students' English competence. It also aims to ascertain whether or not students' motivation

and learning styles to learn English substantially impact their proficiency in the language in differentiated learning contexts. In particular, the study will investigate whether pupils with high linguistic intelligence perform better than those with high intellect in other domains. In conducting so, this study proposed a research question of “How do students’ interests, learning styles, and linguistic intelligence influence language learning proficiency in English compared to other intelligences among students in differentiated learning?” to be answered.

RESEARCH METHODS

This research method uses qualitative research to explore the students’ learning based on the students’ diversity (Creswell, 2012; Latief, 2017), which involves quantitative and qualitative data. The research subjects were junior high school students from a first-mover private school in Sidoarjo. The participants of the study were 24 8 graders. Data were collected through questionnaires adapted from Slameto (2010, cited in Friantini & Winata, 2019), to gather students’ interest in learning English, while data on multiple intelligences and learning outcomes were obtained from teachers which were adapted from Internship Center & Career Development. The data is then manually analyzed through tables to see the correlation between students’ interest, multiple intelligences, and their English proficiency.

RESULTS AND DISCUSSION

The cool and warm analyses of the data gathered from the in-depth interviews of the participants yielded the following themes; namely: a) being egalitarian, b) being sensitive, and c) being supportive.

Having explored the analysis of English learning outcomes within the framework of differentiated learning, we are poised to address our research question: "How do students’ interest, learning style, and linguistic intelligence influence language learning proficiency in English compared to other intelligences among students in differentiated learning?" This inquiry is tailored to delve into the nuances and intricacies of how diverse learning approaches shape students’ overall English language skills and achievements.

Table 1. Students’ learning out comes based on students’ diversity

No.	Student	Interest	LS	MI	LO
1.	Student A	Interested	Kin-esthetic	Linguistic	89
2.	Student B	Interested	Visual	Linguistic	85
3.	Student C	Interested	Visual- Auditory	Mathematical- Logic	92
4.	Student D	Very Interested	Visual	Music	89
5.	Student E	Not Interested	Visual	Naturalist	85
6.	Student F	Not Interested	Visual	Music	81
7.	Student G	Very Interested	Visual – Auditory	Music	92
8.	Student H	Not Interested	Auditory	Naturalist	85
9.	Student I	Interested	Visual	Interpersonal	87
10.	Student J	Interested	Auditory	Interpersonal	91
11.	Student K	Interested	Auditory	Linguistic	89
12.	Student L	Very Interested	Visual	Music	88
13.	Student M	Interested	Auditory	Naturalist	85
14.	Student N	Interested	Visual	Music	88
15.	Student O	Interested	Visual	Kin-esthetic	92
16.	Student P	Interested	Visual	Music	87
17.	Student Q	Interested	Visual	Interpersonal	85
18.	Student R	Interested	Auditory	Music	88

19.	Student S	Interested	Visual- Kin-esthetic	Interpersonal	87
20.	Student T	Interested	Kin-esthetic	Kin-esthetic	87
21.	Student U	Very Interested	Visual	Music	95
22.	Student V	Interested	Visual	Music	87
23.	Student W	Interested	Visual	Interpersonal	88
24.	Student X	Interested	Kin-esthetic	Kin-esthetic	88

The study's findings illuminate the contrasting effects of employing differentiation within an emancipated curriculum on English language learning outcomes. A comprehensive analysis of the data underscores the remarkable success of this approach, as evidenced by the consistently high performance of all students involved. Notably, every student scored above 80 out of 100, reflecting a significant level of competence and understanding achieved through differentiated learning methods. This outcome highlights the effectiveness of tailoring educational experiences to meet individual student needs, interests, and learning styles, resulting in more uniform and elevated learning outcomes. In stark contrast, traditional homogeneous teaching methods often fail to address the diverse needs of students, leading to a wide disparity in academic performance and understanding. The study's results thus advocate for the adoption of differentiated instruction, demonstrating its potential to create a more equitable and effective educational environment where all students can excel.

Furthermore, this investigation has revealed the intricate interplay between students' diverse learning styles, their interests in learning English, and their various types of multiple intelligences about their learning outcomes. The data demonstrate a range of performance levels, with some students scoring between 80 and 85, others between 86 and 90, and a select few exceeding 90. Notably, the students who scored above 90 exhibited a strong interest in studying English, which suggests a significant correlation between motivation and academic achievement. This finding highlights the significance of cultivating a genuine interest in the subject matter to enhance student performance.

Furthermore, it is notable that students who achieved the highest scores clearly preferred visual and auditory learning methods. This preference highlights the critical role of aligning instructional strategies with students' preferred learning modalities to optimize educational outcomes. For example, incorporating visual aids and auditory resources in lessons can enhance comprehension and retention for students who favor these methods. These insights underscore the necessity for educators to adapt their pedagogical approaches to align with their students' distinctive learning styles and interests, thus optimizing the efficacy of their instruction and fostering enhanced academic achievement.

Students' exceptional performance, as reflected in their scores, demonstrates the significant impact of differentiated learning on their overall comprehension and mastery of the English language. The differentiation of learning enables educators to tailor their instruction to meet each student's unique needs, interests, and learning styles. This approach facilitates a deeper and more effective engagement with the material. This approach is in stark contrast to traditional one-size-fits-all teaching methods, which often fail to address students' varied learning needs, resulting in suboptimal learning outcomes and a wider performance gap.

Furthermore, this research emphasizes the pivotal role of accommodating student diversity within the differentiated learning framework. Students who exhibit a strong interest in learning English consistently outperform their peers, indicating that motivation is crucial to academic success. Educators can enhance engagement and drive better performance by acknowledging and fostering individual student interests. This finding reinforces the necessity

for personalized learning experiences that cater to different learning styles and intelligences and actively cultivate a genuine interest in the subject matter. In conclusion, the study recommends a transition towards more flexible and responsive instructional strategies that acknowledge and capitalize on the diverse strengths and motivations of students to achieve optimal educational outcomes.

Discussion

Whereas when viewed in terms of students' multiple intelligences, students who tend to get high scores, exceeding 90, are students from diverse multiple intelligences such as mathematical-logical, interpersonal, and more dominant music. This is inversely proportional to the theory of multiple intelligences. The theory of multiple intelligences, as proposed by Gardner (2017), offers valuable insights into the diverse cognitive profiles of students and their implications for language learning. As has also been found in investigations into the application of multiple intelligences theory in language teaching, Arnold & Fonseca-Mora (2004) advocate integrating this theory into foreign language learning, particularly in the EFL classroom. Similarly, Oprescu & Oprescu (2012) found that using multiple intelligences in literature teaching inspired students and increased their interaction with literary texts. These findings underscore the importance of aligning instructional strategies with students' cognitive strengths and preferences to maximize learning outcomes.

However, this study also reveals contradictory findings regarding the relationship between certain types of multiple intelligences and language learning outcomes. For instance, while some studies have demonstrated a positive correlation between linguistic intelligence and language proficiency, linguistic intelligence traditionally correlates with language proficiency; this study challenges this notion by revealing that music, kinesthetic, and interpersonal as well as mathematic-logical students, outperform linguistic students in English language learning. This is in line with what Sogutlu (2018) has found. The study has established significant, if unfavorable, relationships between students' interpersonal and physical intelligence and grammar proficiency. Moreover, Huang (2017) finding regarding the positive relationship between linguistic intelligence, bodily-kinesthetic intelligence, and musical intelligence suggests an intriguing interconnectedness among these different forms of intelligence. This highlights the need for educators to adopt a multifaceted approach to instruction that accommodates the diverse cognitive strengths of students, ensuring optimal learning outcomes.

Nevertheless, this study also demonstrates that, in addition to multiple intelligences, especially linguistic intelligence, other factors that significantly impact language learning development include learning interest, the alignment of learning models and learning styles, and the resources and guidance teachers offer during the teaching and learning process. It has been scrutinized that all multiple intelligences are great, even in language learning. These include musical intelligence, kinesthetic intelligence, body kinesthetic intelligence, linguistic intelligence, spatial intelligence, logical intelligence, and intrapersonal intelligence. Additionally, the study discovered that the participants excel at acquiring languages (Tandoc JR & Garnadozo, 2020). Then, when students become responsive to their multiple intelligence profiles, they often experience a profound shift in their approach to learning (Madkour & Mohamed, 2016). This newfound awareness empowers them to recognize and leverage their unique strengths across various intelligences, including linguistic, bodily-kinesthetic, musical, and others. As a result, students often feel more motivated and confident in their language-learning endeavors, realizing that there are multiple pathways to success beyond traditional measures. This heightened motivation fuels their commitment to practice, exploration, and

experimentation, leading to a noticeable improvement in their language skills. By embracing their diverse intelligences and understanding how these strengths can be applied in the context of language learning students embark on a more personalized and fulfilling journey toward linguistic proficiency.

Additionally, by acknowledging the importance of these factors alongside multiple intelligences and linguistic abilities, educators can adopt more holistic and student-centered approaches to language instruction (Tandoc JR & Garnadozo, 2020). This involves fostering a supportive and stimulating learning environment catering to learners' interests, preferences and needs while providing effective guidance and resources to facilitate their language learning development. Integrating these various elements optimizes the language learning experience and enhances students' overall proficiency and fluency.

In differentiated learning, this study identifies an interrelation between the implementation of differentiation and student diversity, including learning styles, interests in learning English, and types of multiple intelligences on learning outcomes. Differentiated instruction considers each student's unique learning style to ensure they understand and demonstrate mastery of the material (Ouyang & Ye, 2023). Most studies report small to moderate positive effects on student achievement from differentiated instruction, with summarized effect sizes ranging from $d = +0.509$ to $+0.741$, excluding an outlier (Smale-Jacobse et al., 2019). These empirical findings suggest the potential benefits of implementing differentiated instruction.

The selection reviews a broad spectrum of studies focusing on various approaches to differentiated instruction, which aim to cater to the diverse learning needs of students (Ouyang & Ye, 2023; Smale-Jacobse et al., 2019). These approaches include generic teacher training, where educators are equipped with the fundamental skills and techniques for effectively implementing differentiated instruction. It also covers ability grouping and tiering, which involve organizing students based on their skill levels and providing them with tasks that match their abilities (Balungaya, 2018). Individualization is another key approach, tailoring the learning experience to meet individual students' unique needs, interests, and paces. Mastery learning ensures that students thoroughly understand a topic before moving on to more advanced material, promoting a solid foundation in their learning journey. Heterogeneous grouping, which brings together students of varying abilities and backgrounds, fosters a collaborative learning environment where students can learn from each other's strengths (Balungaya, 2018; Smit & Humpert, 2012). Additionally, the selection highlights remediation in flipped classroom lessons, where traditional instructional methods are reversed, and additional support is provided to help students grasp challenging concepts. These diverse strategies collectively demonstrate the multifaceted nature of differentiated instruction and its potential to enhance student achievement (Ouyang & Ye, 2023). Likewise, this study shows that by leveraging project-based learning and technology integration in differentiated learning, educators can effectively cater to the diverse needs of students, particularly those with high scores and specific learning preferences. This contrasts with traditional pedagogical approaches, which often rely on standardized instruction and pay attention to individual differences, resulting in limited engagement and subpar learning outcomes.

In conclusion, this study demonstrates the transformative potential of differentiation within an emancipated curriculum as a powerful tool for enhancing English language learning outcomes. By embracing student diversity and utilizing the diverse spectrum of multiple intelligences, educators can effectively customize instruction to address each learner's unique needs and preferences. This approach to education fosters deeper engagement and understanding;

while simultaneously cultivating a sense of inclusivity and equity within the learning environment.

The findings of this study emphasize the importance of recognizing and valuing the individual strengths and capabilities of students; rather than adhering to a one-size-fits-all approach to instruction. By adapting learning experiences to align with students' cognitive preferences, interests, and learning styles, educators can create more meaningful and relevant educational opportunities that resonate with learners personally. Nevertheless, while this study provides valuable insights into the benefits of differentiated instruction, it also highlights the need for further research to deepen our understanding of the complex interplay between multiple intelligences and language learning outcomes. By investigating this intricate relationship in greater depth, future studies can identify additional strategies and approaches to optimize instructional practices and further enhance student achievement in language learning. In essence, this study emphasizes the significance of embracing diversity, personalized learning, and ongoing research and development in educational practices to fully realize the potential of differentiated instruction and create more inclusive and effective learning environments for all students.

CONCLUSION

This study underscores the transformative potential of differentiated instruction in significantly enhancing English language learning outcomes among junior high school students. By recognizing and accommodating the diverse range of student interests, learning styles, and multiple intelligences, educators can create more inclusive and effective learning environments that cater to the individual needs of each student. The findings highlight the importance of aligning instructional strategies with students' cognitive strengths and preferences. This alignment promotes equitable learning experiences, ensuring that all students have the opportunity to succeed regardless of their inherent differences. Moreover, the study emphasizes that understanding and leveraging these differences can lead to better educational outcomes. However, it also points out the necessity for further research to deepen our understanding of the complex relationship between multiple intelligences and language learning outcomes. Such research would be instrumental in refining and developing more effective pedagogical practices, ultimately contributing to advancing educational methodologies and achieving higher student success rates in language learning.

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