




Implementing Differentiated Learning in an EFL Class: How Students from Different Learning Styles Perceived Its Advantages

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Abstract. This study aimed at investigating how students from different learning styles perceived the advantages of implementing differentiated learning in their English class. This research used a survey method with a cross-sectional design. The population was 205 eleventh-grade students of SMAN 1 Tilatang Kamang in the 2022/2023 academic year. They were classified as auditory, visual, kinesthetic, auditory kinesthetic, auditory, visual, auditory kinesthetic, visual kinesthetic, auditory visual, and kinesthetic visual learning styles. The sample was 41 students which is 20% out of the total population by employing a proportional random sampling technique. To collect the data, a questionnaire was administered after being validated by 3 validators. The validation result was 4.6 on average which indicated it was valid. The result of the reliability was 0.908 which showed it was reliable. The findings showed that students from different learning styles perceived positively on the advantages of implementing differentiated learning in their English Class. This implies that English teachers should be able to maintain students' positive perceptions during their implementation of differentiated learning as well as improving those who held negative one since it will have a significant effect on their learning.

Keywords: *kurikulum merdeka*, differentiated learning, learning styles, perception.

1 Introduction

Kurikulum merdeka (in English: independent curriculum), introduced by Minister of Education and Culture Nadiem Makarim, is a philosophy of changing from the previous learning approach. The independent curriculum enables the educational environment to select the best method for maximizing learning [1]. Its application, the curriculum transformation from K-13 to the independent curriculum generates several paradigms and system contrasts. The 2013 curriculum focuses on increasing and balancing attitudes and knowledge competencies with regard to class selection majors. Meanwhile, the independent curriculum focuses on developing the character and competence of students, as well as honing their interests and talents. The independent

curriculum allows schools, teachers, students, and all school resources to innovate and learn independently and creatively, which can be initiated by the teacher as the driving force of education. The teacher's role in implementing the kurikulum merdeka or independent curriculum is to create learning that is interactive, efficient, simple, inspiring, fun, challenging, and capable of motivating students to actively participate in every learning process. Students are given adequate space to develop interests, talents, creativity, and freedom following their learning phase's cognitive, physical, and psychological development. The learning process in this independent curriculum is differentiated learning [2].

Differentiated learning is a teaching philosophy that holds that students learn best when their teachers take into account differences in their readiness levels, interests, and learning profiles and as an approach to teaching and learning that is adaptable, equitable, and intelligent [3][4]. Differentiated learning is an internal educator effort that adjusts learning activities in class to meet students' learning needs related to their readiness to accept new material, their interests and learning profiles, or their diverse learning styles. Learning style refers to how students develop a learning strategy that can help them achieve their goals based on the assumption that variability exists in all student groups. As a result, educators must prepare for student diversity and adapt their instruction accordingly [5][6][7]. The teacher can use a variety of contents, methods, products, and learning environments based on the students' readiness, learning styles (auditory, visual and kinaesthetic), talents, skills, abilities, cultural and social background. Teachers were encouraged to think about their students' individual learning styles and differentiate educational activities to accommodate their divergent learning styles through differentiated learning in three areas: content, process, and product [8]. Differentiated learning is the process of doing the same task in different ways and at different levels so that all children can achieve the task's goal in their way. Teachers, as the frontline in the learning process, are responsible for designing and preparing lesson plans, implementing these plans, and assessing learning to determine whether learning objectives are met. In addition, a teacher must be able to select appropriate learning strategies for students, keeping in mind that each student is unique [9].

In the implementation of differentiated learning in English subject, the teacher in State Senior High School (hence, SMAN) Tilatang Kamang divided students into groups based on their learning styles. Preferences for learning styles are critical components of the learning process because they influence how students interact with and remember information and how learners characteristically prefer to learn and can help Students retain learned concepts for a longer period of time and gain a better understanding of the concepts [10][11][12]. Learning styles are a set of cognitive, affective, and physiological characteristics that serve as fairly consistent indicators of how a learner perceives, communicates with, and responds to the learning environment [13]. Knowing a student's learning style and tailoring instruction to that style can boost satisfaction, improve academic performance, and even cut learning time in half [14] so that it is easier for them to understand the lessons given by the teacher because they can discuss with friends who have the same learning style, which consists of auditory, visual, kinesthetic, auditory kinesthetic, auditory visual, kinesthetic auditory, kinaesthetic visual, visual auditory, visual kinaesthetic. Not only that, the teacher

also allows students to choose in making their final project, for example at the end of the lesson the teacher asked the students to choose whether they want to make videos, comics, etc. Based on this, it was expected that differentiated learning could help students in learning so that the students understand and receive learning well.

There are several advantages to implementing differentiated learning. It can develop students' potential according to their interests and talents because students can take part in learning according to their needs, allow them to determine what, when, where, and how they will study the material to be discussed and allow them to become peer tutors. This reinforces the understanding of students who have mastered the material while providing support for students who are still having difficulties [15]. It can help students to be more confident and independent and also can explore the potential and abilities of students [16]. It can increase their motivation and meet their needs [17]. It can support the development of learning competencies because it is directed at improving life skills, especially in building creativity, critical thinking skills, collaborating or cooperating and communication skills [18], and it fosters every student's potential by taking into account their level of readiness, learning styles, multiple intelligences, and interests [19].

Several previous studies tried to investigate the relationship between students' perceptions on differentiated learning. One of the study that investigated students' perception on differentiation in grammar learning revealed that this approach was much better than conventional learning approaches since the former one could improve students' achievement, interest, different learning opportunities and motivating the classroom environment. This research also confirmed that differentiated learning was quite challenging for students' different levels of readiness [31]. Another study also revealed that the learning process using differentiated learning was more effective if students were given the freedom to learn in accordance with their respective learning styles and levels of readiness and individual abilities [32]. Dealing with the previous studies, it was found that they focused more on students' perception in general. However, in this study, the investigation focused more on students from different learning styles and how they perceived the advantages of implementing differentiated learning in their English class.

In implementing differentiated learning, teachers plan and design learning situations to meet students' educational needs when implementing differentiated learning. It appears unavoidable that students' perspectives be considered; one of which is to what extent the instruction benefits in meeting the students' diverse educational needs [20]. This is one of the reasons why students' perception is important to carry out because it can reflect how they think about something. Furthermore, their perception describes how they notice things with their senses of sight, hearing, and so on, as well as their natural ability to understand or notice things quickly [21]. In addition, because each students have different perceptions of capturing the information they receive, it plays an important role in improving their learning achievement. This distinction explains why some people like a particular object while others dislike or even despise it.

Taking the nature of perception and its importance in learning process in to account, this study aimed at investigating how students from different learning styles

perceived the advantages of implementing differentiated learning in their English class. To be more specific, this study elaborated the its aims as follow: 1) how students from different learning styles perceived each indicator of the advantages of implementing differentiated learning, 2) how each learning styles perceived such advantages and 3) how they as a whole perceived the advantages.

2 Methods

2.1 Research Design

This research used a survey method with a cross-sectional design. This method used particular instrument to figure out how students from different learning styles perceived the advantages of implementing differentiated learning in their English class. Cross-sectional design was used because it could assess the outcome and the exposures in the study participants at the same time [28].

2.2 Population and Sample

The population of this study was 205 students of the eleventh grade from SMAN 1 Tilatang Kamang in the 2022/2023 academic year. They were classified into auditory, visual, kinaesthetic, auditory kinaesthetic, auditory visual, auditory kinaesthetic, visual kinaesthetic, auditory visual, and kinaesthetic visual learning styles, the data was obtained based on psychological tests conducted by the school. The sample was 41 students which was taken 20% out of the total population. The sample was determined by applying proportional random sampling technique where each of the groups of population was proportionally represented by each sample [29]. The table below shows the size of the population and the sample as well.

Table 1. List of Population and Sample of the Research

NO	Learning Style	Learning Style of Class F1 To F6		
		Number of Students	Percentage	Sample
1	Auditory	7 Students	20%	1 Student
2	Visual	54 Students	20%	11 Students
3	Kinesthetic	64 Students	20%	13 Students
4	Auditory Kinesthetic	2 Students	20%	0 Students
5	Auditory Visual	3 Students	20%	1 Student
6	Kinesthetic Auditory	9 Students	20%	2 Students
7	Kinesthetic Visual	25 Students	20%	5 Students
8	Visual Auditory	11 Students	20%	2 Students
9	Visual Kinesthetic	30 Students	20%	6 Students
	Total	205 Students	20%	41 Students

2.3 Instrumentation

To collect the data, a questionnaire was used in this research. This questionnaire contained a written collection of survey questions that were answered by the sample of research participants. The main purpose of the questionnaire was to collect information relevant to the research purpose, that is, how students from different types of learning styles perceived the advantages of implementing differentiated learning in their English class [30]. The questionnaire was constructed by the authors in the form of closed one. It consists of 40 statements in respondents' native language. The items were developed based on the theory of advantages of differentiated learning proposed by five experts. The options for "strongly agree", "agree", "undecided" "disagree" and "strongly disagree".

After being constructed, the questionnaire was validated by three validators. . The items were also analysed by using the SPSS 29 computer program. The validation result was 4.6 on average which indicated the questionnaire was valid. In addition, the result of SPSS 29 confirmed that out of 40 items, 5 items discarded and 37 items was valid. The result of the reliability of the questionnaire is 0.908 which showed the questionnaire was reliable.

2.4 Data Analysis

The data obtained from questionnaire were analysed by applying descriptive statistics. This types of statistics was used because it functions to group unarranged data become good arrangement data and easy to interpret. This technique was used to describe and analyze data of the students' perception on the advantages of differentiated learning. To interpret the students' perception on the advantages of differentiated learning based can be seen as follow:

Table 2. Interpretation of the Scores of Students' Perception on the Advantages of differentiated Learning

Class Interval	Interpretation
$\geq (0.80 \times \text{Max Score})$	Strongly Positive
$(0.60 \times \text{Max Score}) - (0.80 \times \text{Max Score})$	Positive
$(0.40 \times \text{Max Score}) - (0.60 \times \text{Max Score})$	Negative
$< (0.40 \times \text{Max Score})$	Strongly Negative

3 Results and Discussion

3.1 Results

Following are the results of perceptions of students who have different learning styles based on the advantages of differentiated learning:

Students from Different Learning Styles Perceived Each of The Indicators of the Advantages of Implementing Differentiated Learning in Their English Class.

Differentiated learning can develop students' potential according to their interests and talents because students can take part in learning according to their needs.

Table 3. Category of Students Perceptions on the Advantages of Differentiated Learning

No	Class Interval	Interpretation
1	$\geq 4.6 - 4.8$	Strongly Positive
2	3.9 - 4.5	Positive
3	3.2 - 3.8	Negative
4	$\leq 2.5 - 3.1$	Strongly Negative

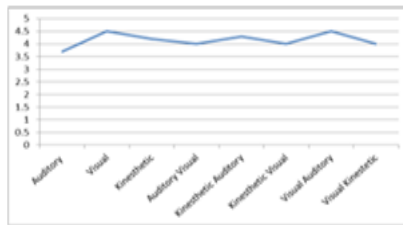


Fig. 1. The Results of Students Perceptions on the Advantages of First Differentiated Learning

Based on the table and figure above, it can be concluded that students' perceptions of the first advantage of differentiated learning, students with an auditory learning style have perceptions with an average of 3.7 with a negative interpretation, visual with an average of 4.5 with a strong positive interpretation, kinesthetic with an average of 4.2 with a positive interpretation, auditory visual with an average of 4 with a positive interpretation, kinesthetic auditory with an average of 4.3 with a positive interpretation, kinesthetic visual with an average of 4 with a positive interpretation, visual auditory with an average of 4.5 with a positive interpretation and visual kinesthetic with an average of 4 with a positive interpretation.

Differentiated learning allows students to determine what, when, where, and how they will study the material to be discussed.

Table 4. Category of Students Perceptions on the Advantages of Differentiated Learning

No	Class Interval	Interpretation
1	$\geq 4.6 - 4.8$	Strongly Positive
2	3.9 - 4.5	Positive
3	3.2 - 3.8	Negative
4	$\leq 2.5 - 3.1$	Strongly Negative

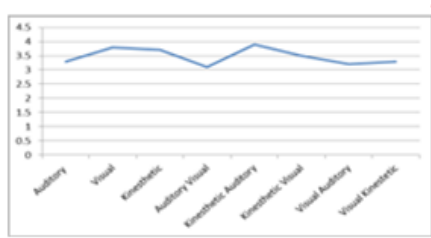


Fig. 2. The Results of Students Perceptions on the Advantages of Second Differentiated Learning

Based on the table and figure above, it can be concluded that students' perceptions of the second advantage of differentiated learning, students with an auditory learning style have perceptions with an average of 3.3 with a negative interpretation, visual with an average of 3.8 with a negative interpretation, kinesthetic with an average of 3.7 with a negative interpretation, auditory visual with an average of 3.1 with a strongly negative interpretation, kinesthetic auditory with an average of 3.9 with a positive interpretation, kinesthetic visual with an average of 3.5, visual auditory with an average of 3.2 with a negative interpretation and visual kinesthetic with an average of 3.3 with a negative interpretation.

Differentiated learning allows students to become peer tutors. This reinforces the understanding of students who have mastered the material while providing support for students who are still having difficulties.

Table 5. Category of Students Perceptions on the Advantages of Differentiated Learning

No	Class Interval	Interpretation
1	$\geq 4.6 - 4.8$	Strongly Positive
2	3.9 - 4.5	Positive
3	3.2 - 3.8	Negative
4	$\leq 2.5 - 3.1$	Strongly Negative

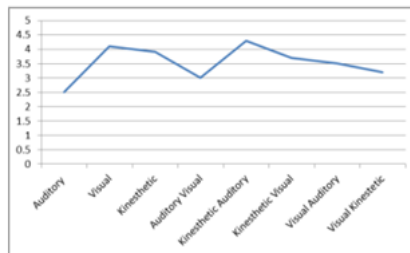


Fig. 3. The Results of Students Perceptions on the Advantages of Third Differentiated Learning

Based on the table and figure above, it can be concluded that students' perceptions of the third advantage of differentiated learning, students with an auditory learning style have perceptions with an average of 2.5 with a strongly negative interpretation, visual

with an average of 4.1 with a positive interpretation, kinesthetic with an average of 3.9 with a positive interpretation, auditory visual with an average of 3 with a strongly negative interpretation, kinesthetic auditory with an average of 4.3 with a positive interpretation, kinesthetic visual with an average of 3.7 with a negative interpretation, visual auditory with an average of 3.5 with a negative interpretation and visual kinesthetic with an average of 3.2 with a negative interpretation.

Differentiated learning can help students to be more confident and independent.

Table 6. Category of Students Perceptions on the Advantages of Differentiated Learning

No	Class Interval	Interpretation
1	$\geq 4.6 - 4.8$	Strongly Positive
2	$3.9 - 4.5$	Positive
3	$3.2 - 3.8$	Negative
4	$\leq 2.5 - 3.1$	Strongly Negative

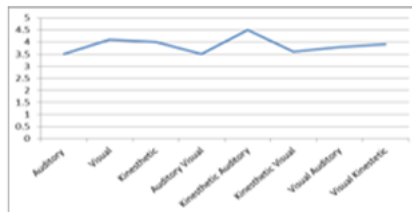


Fig. 4. The Results of Students Perceptions on the Advantages of fourth Differentiated Learning

Based on the table and figure above, it can be concluded that students' perceptions of the fourth advantage of differentiated learning, students with an auditory learning style have perceptions with an average of 3.5 with a negative interpretation, visual with an average of 4.1 with a positive interpretation, kinesthetic with an average of 4 with a positive interpretation, auditory visual with an average of 3.5 with a negative interpretation, kinesthetic auditory with an average of 4.5 with a positive interpretation, kinesthetic visual with an average of 3.6 with a negative interpretation, visual auditory with an average of 3.8 with a negative interpretation and visual kinesthetic with an average of 3.9 with a positive interpretation.

Differentiated learning can explore the potential and abilities of students.

Table 7. Category of Students Perceptions on the Advantages of Differentiated Learning

No	Class Interval	Interpretation
1	$\geq 4.6 - 4.8$	Strongly Positive
2	$3.9 - 4.5$	Positive
3	$3.2 - 3.8$	Negative
4	$\leq 2.5 - 3.1$	Strongly Negative

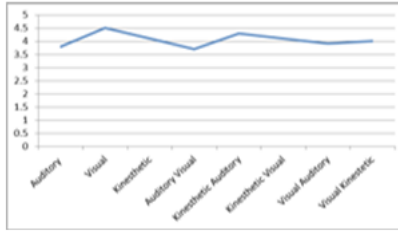


Fig. 5. The Results of Students Perceptions on the Advantages of fifth Differentiated Learning

Based on the table and figure above, it can be concluded that students' perceptions of the fifth advantage of differentiated learning, students with an auditory learning style have perceptions with an average of 3.8 with a negative interpretation, visual with an average of 4.5 with a positive interpretation, kinesthetic with an average of 4.1 with a positive interpretation, auditory visual with an average of 3.7 with a negative interpretation, kinesthetic auditory with an average of 4.3 with a positive interpretation, kinesthetic visual with an average of 4.1 with a positive interpretation, visual auditory with an average of 3.9 with a positive interpretation and visual kinesthetic with an average of 4 with a positive interpretation.

Differentiated learning increases students' motivation and meets their needs.

Table 8. Category of Students Perceptions on the Advantages of Differentiated Learning

No	Class Interval	Interpretation
1	$\geq 4.6 - 4.8$	Strongly Positive
2	3.9 - 4.5	Positive
3	3.2 - 3.8	Negative
4	$\leq 2.5 - 3.1$	Strongly Negative

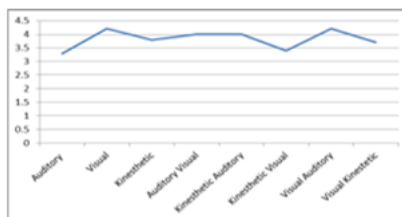


Fig. 6. The Results of Students Perceptions on the Advantages of sixth Differentiated Learning

Based on the table and figure above, it can be concluded that students' perceptions of the sixth advantage of differentiated learning, students with an auditory learning style have perceptions with an average of 3.3 with a negative interpretation, visual with an average of 4.2 with a positive interpretation, kinesthetic with an average of 3.8 with a negative interpretation, auditory visual with an average of 4 with a positive interpreta-

tion, kinesthetic auditory with an average of 4 with a positive interpretation, kinesthetic visual with an average of 3.4 with a negative interpretation, visual auditory with an average of 4.2 with a positive interpretation and visual kinesthetic with an average of 3.7 with a negative interpretation.

Differentiated learning can support the development of learning competencies because it is directed at improving life skills, especially in building creativity, critical thinking skills, collaborating or cooperating and communication skills.

Table 9. Category of Students Perceptions on the Advantages of Differentiated Learning

No	Class Interval	Interpretation
1	$\geq 4.6 - 4.8$	Strongly Positive
2	$3.9 - 4.5$	Positive
3	$3.2 - 3.8$	Negative
4	$\leq 2.5 - 3.1$	Strongly Negative

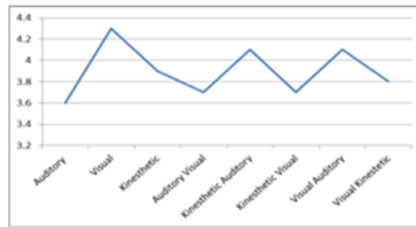


Fig. 7. The Results of Students Perceptions on the Advantages of seventh Differentiated Learning

Based on the table and figure above, it can be concluded that students' perceptions of the seventh advantage of differentiated learning, students with an auditory learning style have perceptions with an average of 3.6 with a negative interpretation, visual with an average of 4.3 with a positive interpretation, kinesthetic with an average of 3.9 with a positive interpretation, auditory visual with an average of 3.7 with a negative interpretation, kinesthetic auditory with an average of 4.1 with a positive interpretation, kinesthetic visual with an average of 3.7 with a negative interpretation, visual auditory with an average of 4.1 with a positive interpretation and visual kinesthetic with an average of 3.8 with a negative interpretation.

Differentiated learning fosters every student's potential by taking into account their level of readiness, learning styles, multiple intelligences, and interests.

Table 10. Category of Students Perceptions on the Advantages of Differentiated Learning

No	Class Interval	Interpretation
1	$\geq 4.6 - 4.8$	Strongly Positive
2	$3.9 - 4.5$	Positive
3	$3.2 - 3.8$	Negative
4	$\leq 2.5 - 3.1$	Strongly Negative

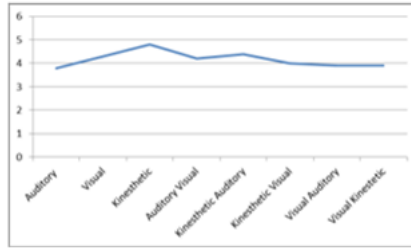


Fig. 8. The Results of Students Perceptions on the Advantages of eighth Differentiated Learning

Based on the table and figure above, it can be concluded that students' perceptions of the eighth advantage of differentiated learning, students with an auditory learning style have perceptions with an average of 3.6 with a negative interpretation, visual with an average of 4.3 with a positive interpretation, kinesthetic with an average of 3.9 with a positive interpretation, auditory visual with an average of 3.7 with a negative interpretation, kinesthetic auditory with an average of 4.1 with a positive interpretation, kinesthetic visual with an average of 3.7 with a negative interpretation, visual auditory with an average of 4.1 with a positive interpretation and visual kinesthetic with an average of 3.8 with a negative interpretation.

Students From Each Learning Styles Perceived the Advantages of Implementing Differentiated Learning in Their English Class.

Table 11. Category of Students Perceptions on the Advantages of Differentiated Learning

No	Class Interval	Interpretation
1	$\geq 4.6 - 4.8$	Strongly Positive
2	3.9 - 4.5	Positive
3	3.2 - 3.8	Negative
4	$\leq 2.5 - 3.1$	Strongly Negative

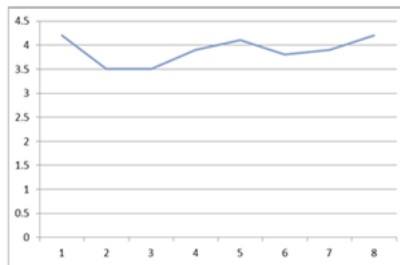


Fig. 9. The Results of Students Perceptions on the Advantages of eighth Differentiated Learning

Based on the table and figure above, it can be concluded that students' perceptions of the advantages of differentiated learning, students with an auditory learning style have perceptions with an average of 3.4 with a negative interpretation, visual with an average of 4.2 with a positive interpretation, kinesthetic with an average of 4.1 with a positive interpretation, auditory visual with an average of 3.7 with a negative interpretation, kinesthetic auditory with an average of 4.2 with a positive interpretation, kinesthetic visual with an average of 3.8 with a negative interpretation, visual auditory with an average of 3.9 with a positive interpretation and visual kinesthetic with an average of 3.7 with a negative interpretation.

Students From Different Learning Styles as a Whole Perceived the Advantages of Implementing Differentiated Learning in Their English Class.

Table 12. Students From Different Learning Styles as a Whole Perceived the Advantages of Implementing Differentiated Learning in Their English Class

No.	Advantages Aspect of Differentiated Learning	A	V	K	AV	KA	KV	VA	VK	
1	Differentiated learning can develop students' potential according to their interests and talents because students can take part in learning according to their needs	N	SP	P	P	SP	P	SP	P	POSITIVE
2	Differentiated learning allow students to determine what, when, where, and how they will study the material to be discussed	N	SP	SP	N	SP	P	N	N	NEGATIVE
3	Differentiated learning gives students the opportunity to become peer tutors. This reinforces the understanding of students who have mastered the material while providing support for students who are still having difficulties	SN	SP	SP	N	SP	P	P	P	NEGATIVE
4	Differentiated learning can help students to be more confident and independent	N	P	P	N	SP	N	P	P	POSITIVE
5	Differentiated learning can explore the potential and abilities of students	N	SP	P	N	SP	P	N	P	POSITIVE
6	Differentiated learning increases students' motivation and meets their needs	N	SP	P	SP	SP	N	SP	P	NEGATIVE
7	Differentiated learning can support the development of learning competencies because it is directed at improving life skills, especially in building creativity, critical thinking skills, collaborating or cooperating and communication skills	N	SP	P	N	SP	N	SP	P	POSITIVE
8	Differentiated learning fosters every student's potential by taking into account their level of readiness, learning styles, multiple intelligences, and interests	N	P	SP	P	P	N	N	N	POSITIVE
Note: A : Auditory		N	P	P	N	P	N	P	P	POSITIVE
V : Visual										
K : Kinesthetic										

Based on the table above, it can be concluded that students' perceptions of the advantages of differentiated learning have a positive perception of the advantages of differentiated learning.

3.2 Discussion.

This study aimed at investigating how students from different learning styles perceived the advantages of implementing differentiated learning in their English class. The findings showed that visual, kinaesthetic, kinaesthetic auditory, visual auditory, and visual kinaesthetic students perceived positively while the auditory, auditory visual, and kinaesthetic visual ones perceived negatively. In general, students from different learning styles together perceived positively. The findings confirmed previous research that students had favourable perceptions of differentiated learning strategies in the context of teaching English [31][32].

4 Conclusion

This is to conclude that, though in general, students from different learning styles perceived positively the advantages of implementing differentiated learning in their English class, few of them from particular learning styles still had negative perceptions of it. It is recommended that further research figure out the reasons for having such an unfavourable perception. Furthermore, taking wider population needs to be carried out for further research to get more comprehensive information about this issue. This is because students' perceptions play an important role in making sure the learning process meets the students; needs as well as achieving the goal of the learning itself.

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