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Students' Learning Styles in Blended English Learning in an Indonesian Private School

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Article Info	Abstract
Received: 10 October 2022	Purpose
Reviewed: 9 January – 3 March	This research aimed at finding out the learning styles of Year 11 students of a private
2023	school in Makassar. The research particularly aims to explore students' perception of
Accepted: 8 March 2023	Blended English Learning (BEL) and strategies in accommodating students' learning
Published: 31 May 2023	styles.
	Methodology
	This research employed the explanatory sequential mixed-method design with quantitative
	and qualitative data. The participants consisted of 19 students and an English teacher.
	Data collection used some instruments, namely observation sheets, questionnaires, and
	semi-structured interviews.
	Results/Findings
	The results showed that the Year 11 students were dominated by auditory learning style
	with a minor preference category which means that the students used this learning style,
	but usually as a second choice or in conjunction with other learning styles. Next, the
	interview results revealed students' views on the BEL differ according to their learning
	styles and most of them preferred face-to-face learning. Then, the findings on the teacher's
	observation and interviews showed that the teacher used differentiated strategy and
	thematic webbing. So, it helps him to implement different strategies for each student.
	Implications
	The results suggest that learning styles are the significant elements in the learning which
	help students achieve their learning goals. On this basis, this research will convey valuable
	information for future research that will explore the students' learning styles in a private
	school.

Keywords: Learning styles; Blended english learning; Teaching strategies; EFL teacher; Perceptual learning style preference

1. Introduction

Education has traditionally been approached using a "one size fits all" model, wherein students are subjected to the same teaching styles and evaluation methods irrespective of their ability or interest. Ohanian (1999) given that different students have different learning styles, and D. A. Kolb (1976) stated that students also have different strengths and weaknesses, and receive varying amounts of parental support at home.

Hence, it is important to remember that every student learns in many different ways. For example, some students learn primarily with their eyes (visual learners) or with their ears (auditory learners); some students prefer to learn by experience and /or by "hands-on" tasks (kinesthetic or tactile learners); and some students learn better when they work alone while others prefer to learn in groups. Those are influenced by the learning styles.

Then, what is learning styles? Learning styles are the ways individual students learn best and personal

processes that are used to understand and memorize information and acquire knowledge or skill. Keefe (1979) defined learning styles as the combination of four areas of learning preferences, such as cognitive skills, perceptual responses, study preferences, and instructional preferences that serve as relatively stable indicators of how learners perceive, interact with, and respond to the learning environment.

Moreover, Reid (2005) thought learning styles as an individual's natural, habitual, preferred ways of absorbing, processing, and retaining new information and skills, as well categorized the learning styles into six types, such as visual, auditory, kinesthetic, tactile, individual, and group. Furthermore, Jeynes (2005) questioned that does it makes sense to throw all students onto the same "conveyor belt" of education and expect the same outcomes? According to the New York City Department of Education, the answer is a resounding "no." (Grinder, 1991) .Even so, many schools still use the traditional one-size-fits-all educational approach because of resources (Yousif et al., 2020).

Accordingly, the observation above seems obvious that students have different ways of learning. It becomes very clear that different learners do not all learn in the same way. Each individual will adopt an approach to learning with which they are most comfortable and in doing so leave behind the approaches with which they are less comfortable (Pritchard, 2009). For this reason, an awareness of learning styles is important for teachers to understand the differences in their students' learning styles, so that they can implement best practice strategies into their daily activities, curriculum and assessments.

As a result, learning style awareness should make an impact on pedagogy, and the ways in which teachers choose to teach each different student. It also should help teachers to a better understanding of the needs of learners and have an awareness of the need to differentiate materials, not only by the level of difficulty but also by learning style (Dewar, 1996).

Last, how are teachers supposed to plan lessons that reach all the different learners? The job might be easier if the differences were predictable or consistent. If a teacher knew the learning styles, of the 25 students in her/his class, for example, 12 learn visually and 13 learn auditory, thus the teacher could plan accordingly and teach visually and auditory to separate groups of students, or s/he could be sure to include some of these learning styles into whole-class lesson plans (Willingham, 2020).

Accordingly, these issues bring the importance of this research objective to explore students' learning styles, investigate students' perceptions about learning styles and identify the strategies that the teachers apply in accommodating their students' learning styles in Blended English learning. Therefore, the researcher conducted a study on an Analysis of Students' Learning Styles in Blended English Learning at SMA Bosowa School Makassar.

2. Literature review

2.1. Learning styles

2.1.1. The definition of learning styles

The definition of learning styles is a major concern for many researchers. It has been defined by various scholars. Brown (2000) defined learning styles as the manner in which individuals perceive and process information in learning situations. Celce (2001) defined learning styles as the general approaches such as global or analytic, auditory or visual and, students use these approaches in acquiring a new language or in learning any other subject.

In summary, learning style can be defined as a particular way of learning that the learners prefer to use in order to maximize their learning performance including obtaining, processing and retaining information/knowledge.

2.1.2. The learning style models

Many researches offer a number of models, categories and dimensions on learning styles. Many other learning style models are explained by experts below:

- a. The Myers-Briggs Type Indicator (MBTI) Model (Briggs & Myers, 1975). This model classifies learning style into some types based on the derivation of psychological theories.
- b. Kolb's Learning Style Inventory Model (DA. Kolb, 1984) learning theory sets out four distinct learning styles, which are based on four stage learning cycle, such as concrete experience, reflective observation, abstract conceptualization, and active experimentation.
- c. Honey and Mumford Learning Styles Model (Honey, P. & Mumford, 1986). The model consists of four distinctive types of learners, namely activists, reflectors, theorists, and pragmatists.
- d. Dunn & Dunn Learning Styles Model (Dunn, & Dunn, 1993). It consists of five learning stimuli, namely environmental, emotional, sociological, physical and psychological.
- e. Gardner's Learning Styles Model (Gardner, 1993). The model categorized 8 types of learners based on their intelligences.

f. Reid's Learning Style Model (Reid, 1995). It divided into auditory (listening to lectures and tapes), visual (reading and studying diagram), kinesthetic (physical activity and movement), tactile (hands-on, doing lab experiments), group (studying with others or in group), and individual learning (studying alone).

Based on the several models of learning styles above, the researcher proposes that Reid's learning styles model are the most suitable theory to be used as the theoretical basis for analyzing students' learning styles in English language learning than the other models in this research. The model was the pioneer in investigating the learning style of ESL/EFL learners. Then, a perceptual learning style preference (PLSP) questionnaire can be used by teachers in this research to find out more about their students' preferred learning styles and to adjust their teaching strategies accordingly.

2.1.3. The importance of learning styles in english foreign language learning

It is very important for an individual to know his/her learning style. The reason is that one of the most significant issues in learning to learn, or in becoming effective in the process of English foreign language learning, is an individual's taking the responsibility for his/her own learning (Coffield, 2004). For this purpose, the individuals should know what their own learning styles are and what characteristics this style has and they should thereby behave according to this style. In this way, the individual can acquire the constantly changing and increasing amount of information without the need for the assistance of others (Biggs, 2001).

2.1.4 The advantages of identifying learning styles

The benefit teachers find is that learning how to appeal to all students actually makes life much easier. By taking into account different learning styles, teachers can improve class management and make their students happier in the classroom. Another advantage is to help the student to become an effective problem solver. The more successful the individual is at solving the problems s/he faced, the more control s/he will take over his/her own life (Fidan, 1986).

2.2. Learning strategy

2.2.1. Definition of language learning strategy

Language learning strategies are specific actions, behaviors, steps, or techniques, that students (often intentionally) use to improve their progress in developing English language skills (Oxford, 1993). Teachers can actively help students "stretch" their learning styles by trying out some strategies that are outside of their primary style preferences.

2.2.2 Types of learning strategies

According to O'Malley & Chamot (1990), there are three main types of learning strategies such as metacognitive strategies (learners are thinking about the process of learning), cognitive strategies (learners create strategies for specific tasks or assignments) and socio-affective strategies (learners work together to get knowledge).

Moreover, another strategy that can be used is differentiated instruction. Differentiated instruction, by definition, is an instruction that is designed to support individual students' learning in a classroom of students with varied backgrounds and needs (Ford, 2019). Further, Tomlinson & Imbeau (2010) described differentiation as creating a balance between academic content and students' individual needs. Differentiated instruction is not the same as individualized instruction. Every student is not learning something different; they are all learning the same thing, but in different ways and every student does not need to be taught individually.

2.3. Blended Learning

2.3.1. The definition of blended learning

According to Stein & Graham (2013) blended learning provided the opportunity for teachers to mix the best of onsite (face-to-face) and online to create a new learning environment for their students. (Dewar & Whittington, 2004) proposed that employing blended learning can match students' learning styles.

2.3.2. The implementation of blended learning in English classroom

Since blended learning has provided education with many benefits and has innumerable potentials to discover, it must be very potential to enhance language education. Blended learning is needed these days for a lot of inevitable advantages it can optimally perform, compared to a single traditional classroom or an online class in its pure form (Prohorets & Plekhanova, 2015). It accommodates flexibility and accessibility for more effective and convenient learning, more excellent learning sources in dynamic and interactive learning modes, various learning objectives, and students' learning styles (Boddy et. al., 2013).

2.3.3. Engaging learners in a blended learning

There are no absolute recipes for engaging all learners. Learners come to the table with different desires, goals, and limitations. One of the strengths of blended learning is that it increases the range of tools and potential strategies that can be used to reach learners. Instruction that takes place both online and face to face can provide a mix of approaches that allows all learners to engage in meaningful ways. Through experience, teachers can learn which combination of approaches works best for different students (Dewey, 1916).

According to Barkley (2010), engaging a student's heart and mind is essential to a quality learning experience. High levels of engagement result from opportunities for interaction between the student and peers, the teacher, and well-designed content. Blended learning can provide a range of learning activities that build on the strengths of both face-to-face and online interaction.

2.4. Perceptions

2.4.1. Definition of perceptions

Robbins (2003) defined perceptions as the process taken by individuals to govern and interpret perceptions of sensory to give significance to their environment. Next, Mcdonald (2011) said that perception is the view of a person or individual in seeing a phenomenon that involves the process of stimulation, and a combination of memories and experiences so as to provide a strong impetus for action. In addition Wright (2017) argued that students' perceptions are very important to emphasize in research that investigates the quality of blended learning.

2.4.2. Types of perceptions

According to Robbins (2003), perceptions divide into two types, namely positive and negative perceptions.

- a. Positive perception is a perception that describes all knowledge and responses that continue with the effort to use it. This will be continued by activating or accepting and supporting the perceived object.
- b. Negative perception is a perception that describes all knowledge and responses that are not in harmony with the object in perception. It will proceed with passivity or reject and oppose the perceived object.

2.4.3. Factors affecting perceptions

Walgito (2004) argued there are two factors affecting perception, such as:

- a. Internal factor, the perception of individual will influenced by psychological factor, such as thought, feeling, motivation, attitudes, learning process, interests and attention.
- b. External factor, perception isn't only affected by internal or personal factors. External factors affecting perception can include what people think of us, others' expectations and cultural norms such as taboos or rules followed by society. For external factor, it influenced by outside factors such as stimuli, environment, culture, and belief.

2.5. Teaching media

2.5.1. Definition of teaching media

Media is every tool to convey information or messages from one place to another place. In teaching learning process also use media to make the process run effective and interesting. According to Munadi (2013), teaching media is an intermediary tool for understanding the meaning of the material submitted by educator or teachers either print or electronic media and teaching media is also as a tool to facilitate the implementation of the components of the learning system, so that the learning process can last a longtime and effective.

2.5.2. The function of teaching media

According to Sudjana & Rivai (2013), the function of teaching media in teaching and learning process as follows:

- a. The using of media in teaching learning process is not addition function, but has own function as an aid to express effective teaching learning situation.
- b. The using of teaching media is integral part of all learning situation. It means that teaching media is one of element that should be developed by teacher
- c. The using of teaching media is more important to accelerate teaching and learning process and help student in comprehend material from teacher.

2.5.3. Kinds of teaching media

The teaching media can be divided into some classification. According to Mahajan (2012), media are classified into seven categories such as:

- a. Graphic Media: any kinds of printed media. Such as, books, pictures, photographs, maps, charts, posters, graphs, diagrams.
- b. Display Media: a board used to show information in small group, e.g., chalkboard, bulletin board, flannel board, and peg boards.
- c. Three Dimensional Media: The medium that has 3D shape. For example, models, objects, specimens, puppets.
- d. Projected Media: a kind of media that need projector to show the messages. For example, slides, filmstrips, transparencies, films, video tapes, gramophones, records.
- e. Audio Media: media that just can be heard. Such as, radio, audio cassettes, gramophones, records.
- f. Video Media: this media is combination between audio and visual, e.g., TV, videocassettes, CD, computers.
- g. Activity Media: media that can act some activity. For example, fieldtrips, dramatization, demonstration, and role-playing.
- h. Digital Media, in education refers to the use of interactive multimedia in the classroom setting.

3. Research method

3.1. Research design

The research design is mixed-methods which is a combination of quantitative and qualitative methods. The mixed methods used in this research is an explanatory sequential approach. It is used when the researcher is interested in following up the quantitative results with qualitative data (Creswell, 2021). It involves two phases, the qualitative data are collected and analyzed second in the sequence and help explain, or elaborate on, the quantitative results obtained in the first phase. A typical procedure might involve collecting questionnaire data in the first phase, analyzing the data, and then following up with qualitative interviews to help explain the questionnaire responses.

3.2. Research participants

The participants consisted of 19 students of Year 11 and an English teacher of SMA Bosowa School Makassar. To get the quantitative data (questionnaire), the researcher used total sampling to select research participants. Total sampling is a sampling technique if the number of population and sample that were used in the research is equal (Sugiyono, 2009). Thus, all students of Year 11 become the sample of this research. On the other hand, in collecting qualitative data (interview), the researcher used purposive sampling to solicit the participants with specific characteristics to participate in the research. When enough participants are obtained, the researcher does not ask anyone else to participate.

3.3. Research instruments

Kerlinger (1965) stated that an instrument plays an important role in a study in the sense that reliability of the instrument will influence the reliability of the data obtained. To collect data, this research employed three instruments, namely observation sheet, questionnaire, and semi-structured interview.

- a. Observation sheet, this instrument uses a checklist to notice specific aspects of teaching practice.
- b. Perceptual Learning Style Preference Questionnaire (PLSPQ), it is developed by (J. M. Reid, 1995) and related to physiological and social interactions to investigate students learning styles. It consists of 30 statements which divided into 5 statements for each learning category and contains of six elements, such as visual, auditory, kinesthetic, tactile, individual, and group.
- c. Semi-structured interviews include an outline of topics or issues to be covered, but the interviewer is free to vary the wording and order of the questions.

3.4. Procedures of data collection

In collecting the data, the researcher used the following procedures, such as:

- a. The observation sheet consists of some indicators which focus on the teacher's teaching strategies in Blended English learning classroom, including the learning environment, teaching strategies in Blended English learning, and planning and assessment.
- b. After the observations, the researcher distributes the Perceptual Learning Style Preference Questionnaire (PLSPQ) to students via online (Google Forms). Each statement of PLSPQ requires the students to answer Strongly Agree, Agree, Disagree, and Strongly Disagree.

c. After analyzing the result of the questionnaire, the researcher conducts semi-structured interview with each participant. The steps of interview, namely: welcoming the participant, guiding to the questioning, interviewing with a general question and open-ended questions, and thanking the participant and remind him/her how the information will be used.

3.5. Technique of data analysis

The researcher analyzed the data according to the characteristics and purpose of data, as follows:

- a. Data from observations, were analyzed by using the following procedure: (a) presenting and sorting the data, (b) classifying the data, and (c) interpreting the data.
- b. Data from questionnaires, is analyzed quantitatively using the PLSPQ's self-scoring sheet and Statistical Package for the Social Sciences (SPSS). The data is counted to determine the frequency of each learning style using descriptive statistical analysis by utilizing minimum, maximum, mean, and standard deviation. Then, the data is interpreted to the three categories scale, namely major learning styles, minor learning styles, and negligible. Last, calculating the percentage of the students' learning styles used the percentage technique.
- c. Data from Interview, were analyzed qualitatively both students and an English teacher. The researcher firstly wrote the interview transcript. Then, she sorted and classified the transcript based on the students' perceptions with different learning styles in Blended English learning and teacher's teaching strategies in accommodating students' learning styles in Blended English learning. To promote honesty of reporting, the researcher advised students not to identify themselves on any of open-ended interview. The researcher used the open-ended format as (Nunan, 2004) points out it can generate valuable information by giving respondents an opportunity to express students' ideas directly using their own words.

4. Results

The findings are described in several aspects, namely:

4.1. The findings related to the learning styles of the Year 11 students of SMA Bosowa School Makassar

4.1.1. The scoring result of PLSP questionnaires

The results indicated that the students learn in many different ways. They have varied learning styles with different category preferences. The students' learning style preferences shows how well students learn material in different situations. The data presented in the table below:

Table 1: Major category preference

		rajor category preservince
No	Students	Types of learning styles
1	NC	Kinesthetic
2	DGA	Kinesthetic
3	DAA	Group
4	NNM	Individual
5	NAR	Tactile
6	ANN	Group
7	SZI	Individual
8	AA	Group
9	AFA	Group
10	UJ	Group
11	FÅ	Kinesthetic

The table shows that 11 out of 19 students had major learning style preferences. This means the student prefers this mode of learning, feels comfortable with it, and uses it for important (to the student) learning. A student does not necessarily have one and only one preferred style. The students with kinesthetic major learning styles preference learn best by experience, by being involved physically in classroom experiences. They remember information well when they actively participate in activities, field trips, and role-playing in the classroom. A combination of stimuli-for example, an audio tape combined with an activity-will help you understand new material.

Then, students who have a tactile major learning style preference learn best when they have the opportunity to do "hands-on" experiences with materials. That is, working on experiments in a laboratory, handling and building models, and touching and working with materials to provide them with the most successful learning situation. Writing notes or instructions can help them remember information, and physical involvement in class-related activities may help them understand new information.

Next, students who have a group major learning styles preference learn more easily when they study with at least one other student, and they will be more successful completing work well when they work with others. They also value group interaction and class work with other students, and they remember information better when they work with two or three classmates. The stimulation they receive from group work helps them learn and understand new information.

Lastly, students who have an individual major learning styles preference learn best when they work alone. They think better when they study alone, and they remember information they learn by themselves. They also understand new material best when they learn it alone, and make better progress in learning.

Therefore, it can be concluded that the explanations of major learning style preferences above describe the characteristics of those students.

Table 2: Minor category preference Types of learning styles Students NC Tactile, Group, Visual, Auditory 1 2 DGA Visual, Auditory, Tactile, Group DAA 3 Auditory, Kinesthetic, Visual 4 Tactile, Group, Visual, Auditory NNM 5 Individual, Group, Auditory, Kinesthetic NAR 6 Tactile, Auditory, Kinesthetic, Visual, Individual ANN 7 Auditory, Kinesthetic, Group, Visual SZI 8 Tactile, Kinesthetic, Visual, Auditory AA 9 Auditory, Kinesthetic, Tactile, Visual AFA 10 Visual, Kinesthetic, Individual, Auditory, Tactile UJ Auditory, Visual, Group, and Individual FA 11 Kinesthetic, Group, Auditory 12 MTN Kinesthetic, Tactile, Visual, Group, Auditory 13 EAS Group, Auditory, Kinesthetic, Tactile, Visual NMS 14 Visual, Auditory, Kinesthetic, Group, Tactile, Individual 15 VDA Visual, Kinesthetic, Auditory, Tactile, Group 16 AMY Tactile, Group, Auditory, Kinesthetic, Visual, Individual 17 NH Group, Kinesthetic, Auditory, Visual 18 Μ Group, Auditory, Kinesthetic, Visual, Tactile, Individual 19 AS

The table shows that the minor learning styles indicate areas where students can function well as a learner. It usually a very successful learner can learn in several different ways. The students also use this style but usually as a second choice or in conjunction with other learning styles.

Furthermore, the following students are analyzed as negligible category preference. This category means that the students prefer not to use this if other choices are available (or have a minor learning styles preferences). The student does not feel comfortable with this style. (see table 3)

Table 3: Negligible category preference

No	Students	Types of learning styles
1	DAA	Tactile and Individual
2	NAR	Visual
3	SZI	Tactile
4	AA	Individual
5	AFA	Individual
6	M	Tactile and Individual
7	MTN	Visual, Tactile and Individual
8	EAS	Individual
9	NMS	Individual
10	AMY	Individual

The students who have negligible score indicates that they may have difficulty learning in that way. One solution may be to direct their learning to their major or minor style. Another solution might be to try to work on some of the skills to strengthen their learning style in the negligible area.

4.1.2. Percentage and frequency analysis of PLSPQ's scores



Figure 1: The percentage of students' learning style

The data shows that the students tended to study with various types of learning styles. Overall, it can be clearly seen that the auditory represented the largest learning style at a hefty 100%. It means that the learning styles of students was dominated by auditory learning styles, while the individual accounted for the smallest learning styles with 47.4%. On the contrary, tactile and group were equal to 73.7%.

Furthermore, the frequency analysis of each learning style as presented in the table below:

Table 4: Frequency and percentage analysis of visual learning style

Visual learning style					
Category	Frequency	Percent	Valid percent	Cumulative percent	
Negligible	2	10.5	10.5	10.5	
Minor	17	89.5	89.5	100	
Total	19	100	100		

The table shows that there are 17 (89.5%) students are classified as minor. This indicates that students use this learning style, but usually as a second choice or in conjunction with other learning styles. These students learning well from seeing words in books, on the board, charts or workbooks. They may even write down words that are given orally, in order to learn by seeing them on paper. These students remember and use information better if they have read it. Meanwhile, there are 2 (10.5%) students categorized as negligible. It means the students prefer not to use visual learning style. None of them are classified as major in visual learning style. It means that the students do not prefer this learning style in Blended English learning.

Table 5: Frequency and percentage analysis of auditory learning style

	Auditory learning style					
Category	Frequency	Percent	Valid percent	Cumulative percent		
Minor	19	100	100	100		
Total	19	100	100			

It shows that 19 (100%) students are classified as minor in auditory learning style. It means that they use this leaning styles, but usually a second choice or in conjunction with other learning styles. These students learn from hearing words spoken. They may vocalize or move their lips or throat while reading, particularly when striving to understand new material. They will be more capable of understanding and remembering words or facts that could only have been learned by hearing.

Table 6: Frequency and percentage analysis of kinesthetic learning style

Kinesthetic learning style					
Category	Frequency	Percent	Valid percent	Cumulative percent	
Minor	15	78.9	78.9	78.9	
Major	4	21.1	21.1	100	
Total	19	100	100		

The table provides information about 4 (21.1%) students who analyzed as major learning style. It means that the students prefer this learning style and feel comfortable using it. Overall, it can be observed that the most frequent category of kinesthetic learning styles was minor with 15 (78.9%) students. This indicates that the students can learn best by experience, by being involved physically in classroom experiences. They remember information

well when they actively participate in activities, field trips, and role-playing in the classroom. Moreover, none of them categorized as negligible in kinesthetic leaning style.

Table 7: Frequency and percentage analysis of tactile learning style.

Tactile learning style					
Category	Frequency	Percent	Valid percent	Cumulative percent	
Negligible Minor	3	15.8	15.8	15.8	
Minor	14	73.7	73.7	89.5	
Major	2	10.5	10.5	100	
Total	19	100	100		

The table shows that the majority of the students used tactile learning style as their minor English learning style preference. It means that 14 (73.7%) students used this style of learning, but usually as a second choice or in conjunction with other learning styles. While there are two (10.5%) students are major in tactile learning styles. They learn primarily by "hands-on" tasks. Writing notes or instructions can help them remember information, and physical involvement in class related activities may help them understand new information. However, there are three (15.8%) students categorized as negligible which means they prefer not to use this learning style.

Table 8: Frequency and percentage analysis of group learning style

	Group learning style					
Category	Frequency	Percent	Valid percent	Cumulative percent		
Minor	14	73.7	73.7	73.7		
Major	5	26.3	26.3	100		
Total	19	100	100			

There are 14 (73.7%) students used group learning styles, but usually as a second choice in conjunction with other learning styles. Whereas, there are 5 (26.3%) students are major in group learning styles. It means that students learn more easily when they study with at least one other student, and they will be more successful completing work well when they work with others. They value group interaction and classwork with other students, and they remember information better when they work with two or three classmates. The stimulation they receive from group work helps them learn and understand new information. However, there is no student who does not prefers to use the group learning style.

Table 9: Frequency and percentage analysis of individual learning style.

Individual learning style					
Category	Frequency	Percent	Valid percent	Cumulative percent	
Negligible	8	42.1	42.1	42.1	
Minor	9	47.4	47.4	89.5	
Major	2	10.5	10.5	100	
Total	19	100	100		

The information above shows that eight (42.1%) students prefer not to use individual learning style. However, there are nine (47.4%) students who use this learning style, but usually as a second choice or in conjunction with other learning styles. On the other hand, there are two (10.5%) students who prefer individual learning style and feel comfortable using it. These students learn best when they work alone. They think better when they study alone, and they remember information they learn by themselves. They also understand new material best when they learn it alone, and they make better progress in learning when they work by themselves.

4.2. The findings related to the students' perceptions with different learning styles in blended English learning.

The students' perceptions are very important to emphasize in research that investigates the quality of Blended learning because it increases the range of learning activities and potential strategies that can be used to reach learners. Instruction that takes place both online and face-to-face can provide a mix of approaches that allows all learners to engage in meaningful ways. Thus, teachers can learn which combination of approaches works best for different students and the students should be aware of their own style in learning which makes them maximally enhance their English learning. Therefore, the results are presented in several aspects, namely:

4.2.1. Students' familiarity with blended learning

Most of the students responded that they knew about Blended learning. This means that they have been familiar with and aware of Blended learning. It is because their school implemented it in the limited face-to-face

learning (PTMT) during the Covid-19 pandemic. This information is in accordance with the explanation is given by a student.

Extract 1, Respondent NH (student)

"Honestly, I like both because I think online learning and face-to-face makes me more productive than ever." Online learning makes my day full of challenges. Imagination while studying online is higher like trying to use everything I see. And lastly I have time for my family." (NH, interviewed on February 7, 2022)

A similar statement was also stated by other students. The student also enjoys the implementation of Blended English learning because he can experience real-time learning and use technology.

Extract 2, Respondent DGA (student)

"Blended learning sure helps to help students feel the real experience but at the same time approach technology." (DGA, interviewed on February 7, 2022)

These responses show a positive perception based on the student's experience during the implementation of Blended learning. Nevertheless, there are also some students who responded that they prefer only face-to-face sessions over online because they are more comfortable studying in the class, easy to understand the lesson, can get feedback directly from the teacher and can interact with their classmates.

Extract 3, Respondent NNM (student)

"I am more comfortable studying offline, because I understand more and it is easier to ask teachers or friends about material that I do not know, and offline learning makes it easy for me to understand by practicing directly." (NNM, interviewed on February 7, 2022)

The same opinion was also conveyed by another student in an interview session, where he revealed that Blended learning was less fun.

Extract 4, Respondent DAA (student)

"Blended learning is quite fun actually if it's face to face because students can ask the teacher directly about for example what's the meaning of a sentence, what is the most fitting word for a sentence, and etc. but if we're talking about online blended from my personal experience I'm always easily distracted type of person and sometimes network issue can be sort of stressful so it's a big no for me." (DAA, interviewed on February 7, 2022)

This might have happened because this student has been bored with online learning for over two years during the Covid-19 pandemic and s/he also experienced network issues and an unconducive learning place. Accordingly, as (Makarim, 2021) has declared to reopen the school and implement the limited face-to-face learning (PTMT) during the Covid-19 pandemic, then some schools try to conduct a blended learning model.

4.2.2. The implementation of Blended English learning in the class

Since blended learning has provided education with many benefits and has innumerable potentials to discover, it must be very potential to enhance language education. Blended learning is needed these days for a lot of inevitable advantages it can optimally perform, compared to a single traditional classroom or an online class in its pure form. Some students responded that they like if the teacher implemented Blended English learning.

Extract 5, Respondent NH (student)

"I like it when the teacher applies Blended English learning in the class because I get a chance to practice my skills behind the scenes or in front of my classmates and I have many time to break." (NH, interviewed on February 7, 2022)

Another student has same statement about the implementation of Blended English learning, namely:

Extract 6, Respondent DGA (student)

"I will be happy if because of the reason above, good for students both in field experience and technology" (DGA, interviewed on February 7, 2022)

This finding shows that the student has a positive perception of Blended English learning which engaging a student's heart and mind is essential to a quality learning experience [31]. Thus, it can be seen that the use of Blended English learning is considered to accommodate students' flexibility and accessibility for more effective and convenient in learning, more excellent learning sources in dynamic and interactive learning modes, various

learning objectives, and students' learning styles (Boddy, C., Detellier, C., Duarte, S., Duplàa, E., Erdmer, A., Levasseur, D., Mckay, M., & Ufholz, 2013).

However, the rest of students preferred to study through face-to-face learning only. For this reason, they have been distracted at home and had a bad network, as one of the students argued,

Extract 7, Respondent DAA (student)

"I prefer face to face only learning so I don't have to worry about getting distracted or having severe network issues." (DAA, interviewed on February 7, 2022)

The information above shows a negative perception that the students witnessed some obstacles during online learning.

4.2.3. Teacher's teaching media in Blended English learning and students' obstacles in using the media.

In terms of using media in Blended English learning, almost all students do not have difficulties using them because their teacher has explained the media before they used and they are also already familiar with that.

Extract 8, Respondent NH (student)

"No, because the English teacher explained the tool or application settings before we used it." (NH, interviewed on February 7, 2022)

Other students were also conveyed the similar views on applying the media, namely:

Extract 9, Respondent UJ (student)

"No, because the tools and media used in Blended English are media that are often used for online learning." (UJ, interviewed on February 7, 2022)

Extract 10, Respondent DGA (student)

"No, because I'm already used in technology kind of stuffs so I'm already oriented for blended learning." (DGA, interviewed on February 7, 2022)

Furthermore, the interview results show the students used some media in Blended English learning, such as Quizizz, Kahoot, Zoom, Mentimeter, Microsoft Power Point and Word, Google Classroom, LCD, and textbook.

Extract 11, Respondent NH (student)

"For online learning, the teacher used Microsoft PowerPoint, Quizizz, Kahoot, Zoom, Mentimeter, movies, etc. Then, offline learning used Microsoft PowerPoint with projector, textbook, movies, etc." (NH, interviewed on February 7, 2022)

Based on the findings above, the media used by the students is a tool to facilitate the implementation of the components of the learning system, so that the learning process can last a longtime and effective.

4.2.4. Teacher's learning methods that suit students' learning style in blended English learning

Most students answered that teacher provides learning methods that suits their learning styles. As quote from one of the student's view,

Extract 12, Respondent NH (student)

"Yes. Sometimes every week the English teacher teaches us a different teaching style. So, we don't get bored in class." (NH, interviewed on February 7, 2022)

In addition, another student also said,

Extract 13, Respondent NNM (student)

"Yes, my teacher really considers understanding and always makes new learning methods so that students don't get bored easily." (NNM, interviewed on February 7, 2022)

Regarding these students' perceptions, it related to the teacher's interview result, namely:

Extract 14, Respondent Mr. MA (teacher)

"Personally, I apply differentiated instructional strategy in accommodating my students' learning styles because they demonstrate varying learning abilities, academic levels, learning preferences, and need tailored instruction to

meet their unique needs and use thematic Webbing as the school curriculum." (Mr. MA, interviewed on February 7, 2022)

Therefore, it means the teacher is aware of and understands their students' learning styles.

4.2.5. Blended English learning improve student's English learning

All students responded that their English skills were improved, especially their Vocabulary mastered, as the following students stated,

Extract 15, Respondent AA (student)

"Very helpful, because the teacher always provides material in a unique way so that it is easier for me to understand and add a lot of new vocabulary." (AA, interviewed on February 7, 2022)

The students are not only enriching in vocabulary but also use some apps to practice their English skills, like Cake apps. It is quoted by one of the students said,

Extract 16, Respondent NH (student)

"It's really helps me in improving my vocabulary. I tried to make a list of the English words I hear and translate, watch English films, I use several apps to practice my English like Caket, etc, read books or comics in English, listening to English music, and Sometimes, watching vloggers in English." (NH, interviewed on February 7, 2022)

Hence, through Blended English learning teachers and students get benefits in learning even though in the implementation process there was positive and negative effects.

It can be concluded that the majority students have positive and negative responses to the Blended English learning model. The positive response showed that the students felt more productive and challenged while studying in Blended English learning, as well as they like to use technology. In addition, the teacher gave creative materials so that the students were easier to understand and used methods that suit their learning styles. Meanwhile, other students have negative responses. It showed that the students preferred face-to-face to online learning. They thought that it was easier to ask teachers and friends about the subject directly. They also found when the teacher applied online learning they sometimes experienced network issues and got distracted at home.

4.2. The findings related to the teacher's strategies in accommodating students' learning styles in Blended English learning.

The observation has done in four meetings to identify the strategies that the teacher applies in accommodating his students' learning styles in Blended English learning. The researcher observed the English teacher in the class by using the observation sheet. The data is obtained in several aspects, namely:

4.2.1. Learning environment

The teacher understands the developmental influence of the physical setting on students by introducing activity that allow students to move safely around the classroom and encourage students to make choices and actively learn.



Figure 2: Face-to-face learning, taken by researcher on January 17, 2022

Teacher facilitates cooperative learning by creating and modeling expectations for behavior during cooperative work.



Figure 3: Students group discussion, taken by researcher on January 24, 2022

The picture above shows that the teacher creates situations in which students cooperate, take turns, and help one another toward achieving a positive outcome. He also organizes students in groupings in order for them to gain a broader perspective through the sharing of knowledge, ideas, and opinions.

4.2.2. Teaching strategies in blended english learning objectives

The teacher recognizes the need for a variety of teaching approaches to accommodate the different learning styles.



Figure 4: Individual student consultation with english teacher, taken by researcher on January 24, 2022

The researcher found that the teacher adapted materials and teaching approach to reflect individual student's developmental needs, interests, and learning styles.



Figure 5: Students work on activity and create their own design, taken by researcher on January 24, 2022

The teacher used different techniques to meet diverse educational needs (e.g., prompt card, hands-on materials, etc.) and applied a differentiated instructional strategy.

Furthermore, the teacher gave students the responsibility of working together and problem solving to achieve a common goal, as well as provided situations in which students are encouraged to take turns, listen to one another, and share materials.



Figure 6: Students' group presentation, taken by researcher on January 24, 2022

Then, the teacher creates integrated units to help children see the interrelationships between and among learning concepts and everyday experiences by encouraging use of different sources of information for students' learning (e.g., LMS, quizziz, stories, picture).



Figure 7: Online learning, taken by English teacher on January 31, 2022

4.2.3. Lesson planning

The results show that the teacher prepared thematic units and projects based on student's learning styles, and identify basic concepts, ideas, and skills for students to acquire that align with required teaching goals.

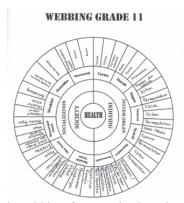


Figure 8: Thematic webbing, from academic and curriculum division

This thematic webbing is created to plan the integrated learning materials for each subject and of course, suits students' learning styles. This also helps team teachers to better know individual students and allows them to intervene before a minor upset grows into a major problem. Moreover, the teachers develop short-term plans for projects and learning which include a variety of activities within the daily plan to accommodate the diversity of learning styles and abilities of students by organizing interdisciplinary teams to plan learning.



Figure 9: School's interdisciplinary teams, from academic and curriculum division on June 21, 2021

Close attention to the needs and learning styles of individual students is also a goal in Bosowa School Makassar where the teachers are organized as interdisciplinary teams every year (at the beginning of the odd semester). In this school, the subject teachers, homeroom teachers, academic and curriculum division, and counsellors meet to discuss students' evaluations related to students' social/emotional, physical, and cognitive development. Then, the team make an individual webbing to identify the student's needs and learning styles based on the semester report and evaluation. When the teams have found what the students need for the next semester, then they create a group webbing for each class.

After collecting data from the observation, the researcher then interviewed the English teacher to support the observation data. The results are presented regarding the interview's questions below:

Question 1: How would you implement Blended English learning in the classroom?

The teacher conducted Blended English learning by preparing a variety of teaching tools and making learning accessible for students. More importantly, he will personalize the learning pathway for every student because every student is unique in their approach to their learning.

Question 2: What strategies do you apply in accommodating your students' learning styles in Blended English learning?

The teacher responded that he used a differentiated instructional strategy to accommodate his students' learning styles. As he said,

Extract 17, Respondent Mr.MA (English teacher)

Personally, I apply differentiated instructional strategy in accommodating my students' learning styles because they demonstrate varying learning abilities, academic levels, learning preferences, and need tailored instruction to meet their unique needs and use thematic Webbing as the school curriculum. Mr. MA, interviewed on January 31, 2022)

The data showed that the teacher applied this strategy which means he knew what his students already know and can do in relation to the topic, concept, or skill. He also knew where students are in their progress as they worked toward a learning objective.

Question 3: What media do you use for teaching in Blended English learning?

The teacher responded that he uses Learning Management System (LMS), web-educational games, Kahoot, Quizizz, and Zoom or Google Meet platform. According to (Groff, 2021), those media are classified as digital media which in line with (Haripriya, 2022) defined Quizizz is a learning platform that offers multiple tools to make a classroom fun, interactive and engaging. As a teacher, you can create lessons, conduct formative assessments, assign homework, and have other interactions with your students (for all grades) in a captivating way.

Question 4: What benefits did you experience in implementing Blended English activities to stimulate learning in students?

For this question, the teacher argued in implementing Blended English activities could provide students time to study independently and connect with them individually through technology.

Question 5: Are there any difficulties in accommodating students different learning styles in Blended English learning?

When the researcher analyzed the interview result, she found the teacher did not experience any difficulties in accommodating students' different learning styles in Blended English learning, as proved the teacher has applied a differentiated instructional strategy and used some media in his class.

In conclusion, the findings above showed that teacher is aware of the students' learning styles. He prepared a variety of teaching media and made learning accessible for students by using some digital learning, such as Bosowa School Learning Management System (LMS), educational games (Kahoot or Quizizz), and teleconference platform (like Zoom or Google Meet). Fortunately, with the emerging of internet and technology, it has successfully equipped students with more accessible materials and sources.

5. Discussions

Based on the findings above, the researcher discussed the results as follows:

First, Year 11 students have varied learning styles with different category preferences. There are 19 (100%) students were categorized as auditory learners, 17 (89.5%) as visual learners, 15 (78.9%) students as kinesthetic learners, 14 (73.7%) students as tactile and group learners, and 9 (47.4%) students as individual learners (see figure 4.1). Regarding to the learning styles category, the results indicated that the students categorized major in kinesthetic (three students), group (five students), individual (two students), and tactile (one student).

These findings relate to Reid's theory (Reid, 1995), a student does not necessarily have one and only one preferred style. Reid stated the major category means the student prefers this mode of learning, feels comfortable with it, and uses it for important (to the student) learning. This finding also in line with the four researchers (Arif, M., Danial, M., & Nurhaeni, 2021; Hepriansyah, Azwan, Purbani, 2019; Muhtar, 2001; and Gilakjani, 2012) who also found various learning styles with different category in their research.

Therefore, it can be inferred that the awareness of learning styles is important for teachers to understand the differences in their students' learning styles so that they can implement best practice strategies into their daily activities, lesson and assessments. In conclusion, the most important is how the teachers are aware of and provide learning that supports their students' learning styles. Thus, it is widely believed that understanding students' learning styles can benefit both students and teachers.

Second, it refers to students' perceptions of Blended English learning. The students have positive and negative perceptions. The positive perceptions showed that the students felt more productive and challenged while studying in Blended English learning, as well as they like to use technology. In addition, the teacher gave creative materials so that the students were easier to understand and used methods that suit their learning styles. This finding is in line with (Walgito, 2004) that perception is influenced by the internal factor, that is feeling, motivation, attitudes, learning process, interests and attention factor. Similarly, as (Robbins., 2003) stated that positive perception is a process to activate or accept and support the perceived object.

Meanwhile, other students have negative responses. It showed that the students preferred face-to-face to online learning. They thought that it was easier to ask teachers and friends about the subject directly. They also found when the teacher applied online learning they sometimes experienced network issues and got distracted at home. Therefore, this finding is also related to Robbins (2003) that the negative perceptions will proceed with passivity or reject and oppose the perceived object which proved as the students prefer face-to-face learning in Blended English learning to online learning. This finding is also affected by external factors, namely stimuli and environment (Walgito, 2004).

Thus, the students' perceptions both positive and negative will always affect them in doing something. Positive perception or negative perception all depends on how they describe all their knowledge about an object that is perceived.

Last, regarding to the teacher's strategies, the researcher found that the teacher applied a differentiated instructional strategy to accommodate his students' learning styles. This finding is in line with Rossini & Pastore (2015), which showed that by using differentiated instruction based teaching, the teachers can identify their students' learning styles and also will help them to implement different strategies for the different learners. Moreover, this is also proved by Ravitch (2007) that differentiated instruction seeks to maximize each student's growth by recognizing that students have different ways of learning, different interests, different ways of responding to instruction, and preferred ways of learning or expressing themselves.

The last point to address in this discussion, there were quite positive toward the Blended English learning, namely the students found this learning was fun and exciting. However, the rest of students conveyed that face-to-face learning was superior in terms of teacher's attention, guidance, and feedback in the classroom.

Thus, it can be concluded that the differentiated strategy used by the teacher can activate and motivate students to learn English. This strategy does not require teachers to do much beyond administering a diagnostic learning-style assessment and sharing the tasks with students. The students do the bulk of the work themselves, thereby gaining more academic independence and self-confidence. In addition, the students also experienced fun activities and were dynamically engaged in learning activities. This indicates that the use of differentiated strategy in the Blended English learning model is beneficial and advantageous to supporting students' learning styles and academic achievement.

6. Conclusions and suggestions

6.1. Conclusions

Based on the research findings and discussions, it can be concluded as follows:

- a. The data acquisition shows that the Year 11 students of SMA Bosowa School Makassar have varied learning styles with different category preferences. This indicates that the students can learn in many different ways. In short, a student does not necessarily have one and only one preferred style. Because students' learning style preferences show how well students learn the lesson in different situations. Even so, it is thought that each student acquires a different way of learning in various respects and that no style of learning is superior to others.
- b. The students' perceptions on the Blended English learning process differ according to their learning styles, such as they have already familiar with Blended learning, they know how to use learning media in Blended learning, and their teacher provides learning methods that suit their learning style, as well as can improve their English language competency. However, most of them preferred face-to-face learning because they were bored with online learning for over two years during the Covid-19 pandemic, and have experienced network issues, as well as an unconducive learning place. Then, another factor is the majority of them are auditory learners, which they learn mainly through listening so they learn best through direct discussions, games or interactive activities.
- c. The teacher of SMA Bosowa School Makassar applied a differentiated instructional strategy in accommodating his students' learning styles and used Thematic Webbing-based curriculum to plan the integrated learning materials for each subject. Teacher and students get benefits in Blended English Learning.

6.2. Suggestions

Based on the discussion and conclusion above, the researcher puts forward the following suggestions:

a. For learners, the knowledge of learning style preferences may help them to identify, understand and use the most effective ways to learn. Simultaneously, the knowledge of learning and teaching styles will allow learners to know that they can use their own strategies to learn when there is a mismatch between learning and teaching styles. In terms of Blended English learning, it has found that different types of learning styles have different impacts on the competency of students when taught through blended learning. As the same as the portion diversity of online and face to face learning, also have a different impact. The interaction between the learning styles of students and blended learning also found to be significant. Students'

- competencies based on the type of learning style are different in each online and face-to-face blend learning. So, for teaching them, it is necessary to pay attention to their type of learning style first as a basis for choosing the right approach and can obtain maximum learning outcomes.
- b. For teachers, the knowledge of learning strategies is important as it informs them on how to apply different strategies to different students' learning styles. Based on the findings in this study, such knowledge includes an awareness that a match in learning and teaching style preferences may help students get good grades, and it will affect psycho-social variables such as students' emotions and interest to learn.
- c. For further researchers, this research will provide valuable information about students' learning styles in Blended English learning. The researcher can use the results of this research as a useful reference and also in carrying out their research, they can use more varied methods so that the results found are more credible.

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References

Arif, M., Danial, M., & Nurhaeni, N. (2021). Students' perceptual English learning style; Major and minor preferences in higher education. *LLT Journal: A Journal on Language and Language Teaching*, 24(2), 401–411. https://doi.org/https://doi.org/10.24071/llt.v24i2.3499.

Barkley, E. F. (2010). Student engagement techniques. In Jossey-Bass. (Ed.), A handbook for college faculty.

Biggs, J. (2001). Enhancing learning: a matter of style or approach? in: perspectives on thinking, learning and cognitive styles (N. Lawrance Erlbaum Associates, Ed.; R.J. and L). Mahwah.

Boddy, C., Detellier, C., Duarte, S., Duplàa, E., Erdmer, A., Levasseur, D., Mckay, M., & Ufholz, L. (2013). Report of the e-learning working group. Report of the E-Learning Working Group.

Briggs, K. & Myers, I. B. (1975). The myers-briggs type indicator. Palo Alto, CA: Consulting Psychologist Press.

Brown, H. D. (2000). Principles of language teaching and learning, fourth edition. New York: Longman.

Celce, M. (2001). Teaching English as a second or foreign language," (3rd ed.). Dewey Publishing Services: NY.

Coffield, F. (2004). Learning styles and pedagogy in post-16 learning: A systematic and critical review. Learning and Skills Research Centre.

Creswell, J. W. (2021). A concise introduction to mixed methods research (Second ed). SAGE Publications, Inc.

Dewar, T. (1996). Adult Learning Online.

Dewar, T and Whittington, D. (2004). Calliope learning: Blended learning research report.

Dewey, J. (1916). An introduction to the philosophy of education. In Democracy and education. Macmillan.

Dunn, R. & Dunn, K. (1993). Teaching students through their individual learning styles: A practical approach. Englewood Cliffs, NJ: Reston Book.

Fidan, N. (1986). Learning and teaching at school, concepts, principles, methods. Ankara: Kadıoğlu.

Ford, K. (2019). Differentiated instruction for English language learners.

Gardner, H. (1993). Multiple intelligences: The theory in practice. New York: Basic Books.

Gilakjani, A. P. (2012). Visual, auditory, kinesthetic learning styles and their impacts on English language teaching. *Journal of Studies in Education*, *2*(1), 104–113.

Grinder, M. (1991). Righting the educational conveyor belt. Portland, OR: Metamorphous Press.

Groff, J. (2021). Technology and digital media in the classroom: A guide for educators. Waterford.Org.

Haripriya. (2022). Quizizz — The world's most engaging learning platform. https://support.quizizz.com/Hc/En-Us/Articles/203610052-What-Is-Quizizz-.

Hepriansyah, Azwan, Purbani, Widyastuti. (2019). english learning styles of the eleventh grade students in Bombana Senior High Schools. Lumbung Pustaka. https://doi.org/Https://Eprints.Uny.Ac.Id/66954/

Honey, P. & Mumford, A. (1986). Manual of learning styles (2nd Ed.). London: P. Honey.

Jeynes, W. H. (2005). Parental involvement and student achievement: A meta-analysis. Family Involvement Research Digest.

Keefe, J. W. (1979). "Learning style: An overview" in J.W. Keefe (ed.): Student Learning Styles: Diagnosing and Prescribing Programs. *National Association of Secondary School Principals*.

Kerlinger, F. N. (1965). Foundation of behavioral research. (and W. Hott Rinchart, Ed.). Inc.

Kolb, D. A. (1976). Learning styles inventory.

Kolb, DA. (1984). Experiential learning: experience as the source of learning and development. Englewood Cliffs, New Jersey: Prentice Hall.

Mahajan, G. (2012). Multimedia in teacher education perceptions and uses. *Jurnal Of Education And Practice*, 3(1), 5–13.

Makarim, N. A. (2021). Limited PTM is not the same as regular school. The Jakarta Post.

Mcdonald, S. M. (2011). Perception: A concept analysis. *International Journal of Nursing Terminologies and Classifications*, 1–20.

Muhtar, S. N. (2001). A study of learning style preferences of all female students in university level. 1(1), 35–46.

Munadi, Y. (2013). Media pembelajaran. Press Group.

Nunan, D. (2004). A Comprehensively. In Cambridge (Ed.), *Task-based language teaching* (Revised Ed). Cambridge University Press.

Ohanian, S. (1999). One size fits few: The folly of educational standards. 361.

O'Malley, J.M. & Chamot, A. U. (1990). Learning strategies in second language acquisition, CUP.

Oxford, R. L. (1993). Language learning strategies in a nutshell: Update and ESL suggestions. *TESOL Journal*, 2(2), 18–22.

Pritchard, A. (2009). Ways of learning-learning theories and learning styles. In Routledge.

Prohorets, E., & Plekhanova, M. (2015). Interaction intensity levels in blended learning environment. In *Social and Behavioral Sciences* (p. 174). Procedia. https://doi.org/https://doi.org/10.1016/j.sbspro.2015.01.1119

Ravitch, D. (2007). Association for supervision and curriculum development. (Alexandria, Ed.; Edspeak).

Reid, G. (2005). Learning style and inclusion. Paul Chapman Publishing. SAGE Publications Inc. In *Journal of Chemical Information and Modeling* (Vol. 53, Issue 9).

Reid, J. M. (1995). Learning styles in the ESL/EFL classroom. Boston, MA: Heinle & Heinle.

Robbins. (2003). Organizational behavior prentice (Hall Inter). Pretince Hall.

Rossini, V., & Pastore, S. M. (2015). *How does teachers learning style effect on teaching practice?* EERA. https://www.eera-ecer.de/ecer-programmes/conference/20/contribution/34373/#:~:text=Research results show that there, functional to pupils' learning characteristics.

Stein, J., & Graham, C. R. (2013). Essentials for blended learning: A standards-based guide (essentials of online learning) (1st ed). Routledge.

Sudjana, N., & Rivai, A. (2013). Media pengajaran. Sinar Baru Algesindo.

Sugiyono. (2009). Metode penelitian kuantitatif, kualitatif dan r&d. Alfabeta.

Tomlinson, C. A., & Imbeau, M. B. (2010). Leading and managing a differentiated classroom. Alexandria.

Walgito, B. (2004). Pengantar psikologi umum.

Willingham, D. T. (2020). Ask the cognitive scientist: Does tailoring instruction to "learning styles" help students learn? *Advances in Engineering Education*, 8(May), 1–16.

Wright, B. M. (2017). Blended learnings student perception of face-to-face and online EFL lessons. *Indonesian Journal of Applied Linguistics*, 7(1), 64–71. https://doi.org/10.17509/ijal.v7i1.6859

Yousif, N., Cole, J., Rothwell, J. C., Diedrichsen, J., Zelik, K. E., Winstein, C. J., Kay, D. B., Wijesinghe, R., Protti, D. A., Camp, A. J., Quinlan, E., Jacobs, J. V, Henry, S. M., Horak, F. B., Jacobs, J. V, Fraser, L. E., Mansfield, A., Harris, L. R., Merino, D. M., ... Dublin, C. (2020). Differentiated learning: Why "One Size Fits All" doesn't work in education. *Journal of Physical Therapy Science*, 9(1), 1–11.