THESIS

PROMOTING GRAMMATICAL KNOWLEDGE THROUGH EMPOWERMENT OF STUDENTS' LEARNING STYLES BASED ON CULTURAL DIMENSION THEORY

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ENGLISH LANGUAGE STUDIES

POST GRADUATE PROGRAM

FACULTY OF CULTURAL SCIENCES

HASANUDDIN UNIVERSITY

MAKASSAR

2021

APPROVAL SHEET (THESIS)

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Mujib Hasib

ACKNOWLEDGEMENT

First of all, the researcher would like to express his great thanks to Allah SWT, who gives the entire help, blessings, health, ability, strength, patient, and many more to let me reach the final and complete the whole need for this thesis accomplishment.

Secondly, the great thanks for my great supervisors, prof. Dr. Abdul Hakim Yassi, Dipl., TESL and Dra. Nasmilah, M.Hum., Ph.D., for throughtout the kindness, providence, knowledge, and constructive and critical guidance in .helping me to complete this magister research. The great thanks also to my honorable examiners committee, Prof. Dr. H. Noer Jihad Saleh, M.A., Dr. M. Dra. Ria Rosdiana Jubhari, M.A. and Dr. Hj. Sukmawaty, M.Hum. for the constructive critics and suggestions along the seminar, and all of the lecturers who have shared knowledge and experience during lectures.

I would be very happy to thanks my friends for any help they have given to me in any way, for their supports and encouragement. I therefore understand that I have never been alone going through all the process of this thesis completion which was not always endearing. Ultimately, I would like to thank my both parents for their endless prays and supports to me during my college time and during this thesis completion. I would also like to thank other persons who cannot be mentioned one by one, who have provided help and assistance.

ABSTRACT

MAJIB HASIB. *Promoting Grammatical Knowledge through Empowerment of Students' Learning Styles based on Cultural Dimension Theory* (supervised by Abdul Hakim Yassi and Nasmilah).

The research aims at investigating to what extent the empowerment of the learning styles helps the students achieve better learning outcomes.

The research used the quasi-experimental design clustering the experimental design into control and experimental groups. Data were collected using the cultural dimension questionnaire to determine the students' learning styles. As directed by the cultural dimension theory, one group was assigned to use the students-centred learning and the other group used the teachers-centred learning. One-way Anove test was carried out to determine the samples homogeneity. The statistical analysis used Wilcoxon's Statistic Test to compare the control group and experimental group outcomes.

The experimental group learning result indicates the "moderate" learning outcome significance compared with the control group. The outcome is not necessarily significant by consistent. The study indicates that empowering the students' learning styles will help them learn better compared with the conventional teaching.

Key words: Learning style, cultural dimension, grammatical teaching

ABSTRAK

MUJIB HASIB. *Pemberdayaan Gaya Belajar Siswa Berdasarkan Teori Dimensi Budaya*. (dibimbing oleh Abdul Hakim Yassi dan Nasmilah).

Mempromosikan Pengetahuan Gramatikal Melalui Penelitian ini bertujuan menyelidiki dapat tidaknya pemberdayaan gaya belajar membantu siswa mencapai hasil belajar yang lebih baik.

Penelitian mengelompokkan desain eksperimen ke dalam kelompok kontrol dan eksperimen. Dalam pengumpulan data digunakan angket dimensi budaya untuk mengetahui gaya belajar siswa. Seperti yang diinstruksikan oleh teori Dimensi Budaya, satu kelompok ditugaskan dengan pembelajaran yang berpusat pada siswa dan satu dengan pembeljaran yang berpusat pada guru. Uji One Way Anove dilakukan untuk mengetahui homogenitas sampel. Analisis statistik menggunakan Uji Statistik Wilcoxon untuk membandingkan hasil kelompok kontrol dan kelompok eksperimen.

Hasil belajar kelompok eksperimen menunjukkan signifikansi hasil belajar sedang dibandingkan dengan kelompok kontrol. Hasilnya belum tentu signifikan tetapi konsisten. Hal tersebut menunjukkan bahwa memberdayakan gaya belajar siswa akan membantu siswa belajar lebih baik dibandingkan dengan pengajaran konvensional. ini menggunakan desain eksperimen semu yang

Kata kunci: gaya belajar, dimesi budaya, pengajaran grammatika

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CHAPTER I

INTRODUCTION

A. Background of the Study

Learning styles is a term refers to individual preferred way of learning, first introduced by Kolb (1984) through his experiential learning. The most common belief in learning styles is if students are taught based on their styles, it will result to their best possible outcome. In teaching and learning, there is no doubt that students are affected by the way teacher deliver the material (Ali, Akhter & Khan, 2010; Sadeghi, Sedaghat & Ahmadi, 2014; Daluba, 2013). Commonly, the issue of styles is addressed to students' participation. Simpson & Du (2004) suggest that considering styles in teaching comfort students in learning which secure students' attention during the learning process.

Belief in learning styles is it helps students learn effectively which derive most studies put concern on investigating whether matching teaching method and learning styles favorable to students' achievement in learning (Vaughn & Baker, 2001; Austin, 2004; Xu, 2011; Gilakjani, 2012). Other studies also directed the focus on learning strategies suitable to styles (Jie & Xiaoqing, 2006; Pei-Shi, 2012). Yet, the biggest undisclosed quest of learning styles is how it takes place. Little study has directed the focus on how students develop preferences and/or what factor may cause the preferences (An &

Carr, 2017). Zhang, Sternberg & Rayner (2012) have tried to direct the attention to how culture takes place in the development of styles in learning. Their proposed paradigm adopted four of cultural dimensions from Hofstede (1990). This includes power distance, uncertainty avoidance, individualism (versus collectivism), and masculinity (versus femininity). It is suggested that the four adopted cultural dimensions can affect cognition.

Furthermore, the Result of Hofstede Country Comparison indicates that most of people in Indonesia employ Type I style from the concept of Zhang, Sternberg & Rayner (2012).

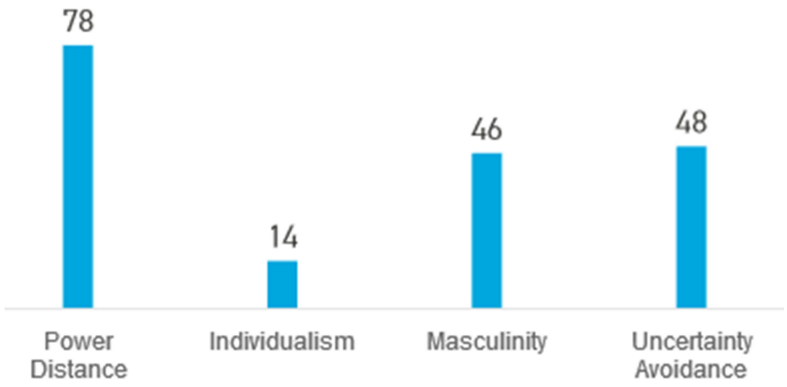

Figure 1. *Hofstede Insight, Country Comparison*
Source: https://www.hofstede-insights.com/country-comparison/indonesia/

This result cannot be taken for granted. At individual level, Zhang, Sternberg & Rayner (2012) suggest that the increasing speed of modernization may affect people. This results to the shift of a collectivist community into individualist (Dwairy & Achoui, 2010). For this reason, an

initial study has been conducted to figure out whether students have similar learning styles or not. From the result of the pilot study, most of the students employ Type I and III which is an indication that modernization has sufficiently impacted people cognition at individual level. The result of the initial study can be seen below.

Table 1. Students' Cultural Dimensions Pilot Study Test Result

Respondent	Power Distance	Uncertainty Avoidance	Individualism / Collectivism	Masculinity / Femininity	Learning Style Type
A	76	60	64	72	Type II
B	36	74	72	48	Type III
C	40	68	64	48	Type III
D	52	76	60	44	Type III
E	44	84	60	44	Type III

Source: Cultural dimensions questionnaire pilot study results, 2020

Furthermore, in grammar teaching, scholars have attempted to improve grammatical learning performance through implementation of various methods. Most finding of previous studies show similar learning outcome. The study conducted by Al-Jarrah et al (2019) suggest that there is a significant improvement of students' grammatical proficiency through educational games. The study result of Cannon et al. (2011) revealed that there is a significant improvement from the pre-test to the post-test of learners' comprehension of morphosyntax structure through the implementation of computer software grammar instruction program as individual classroom

activity. Furthermore, it is also found that “the participants instructed by using both computer-based and teacher-driven grammar instruction supported by computer-based materials score higher than those who receive traditional instruction” (Kılıçkaya, 2015). The previous studies directly compare overall students mean score test results from the pre-test to the post-test. While little attention have been directed to how students score differently from one to another after having the same treatment.

From the discussion above, the present study investigated how grammatical learning is affected by students’ cognition from cultural perspective proposed by Zhang, Sternberg & Rayner (2012).

B. Research Question

The present study examined Zhang, Sternberg & Rayner (2012) learning styles hypothesis on grammatical teaching in EFL students at the University of Muhamadiyah Makassar. The research question is formulated as follows:

1. What is the profile of students’ learning style of the University of Muhammadiyah Makassar?
2. How does the synchronization learning style based on cultural dimensions theory with teaching method promote students’ grammatical knowledge?

C. Objectives of the Study

1. To describe the profile of EFL students' learning style of the University of Muhammadiyah Makassar.
2. To investigate how the synchronization learning style based on cultural dimensions theory with teaching method promote students' grammatical knowledge.

D. Significance of the Study

The result of this study is a considerable contribution to:

1) EFL Teacher

The result of this study is an implication to how teacher considers form of treatment given to the students. Generally, teacher tries to develop motivation within student in learning and often times determined by their comfort and discomfort. Considering their preferred way of learning is one of learning amenities. Previous research on learning styles may have revealed the same thing but none have considered culture effect on learning styles which is the case of Indonesia's educational context.

2) Researcher

As current research on learning styles require the disclosure of other factors that influence the development of styles within students,

this study takes part in the discussion of future and/or further research. Finding out the result from matching preferences with teaching technique of culturally shaped learning styles contribute to the discussion on why students taught in certain teaching technique are vary in terms of their learning outcomes.

The result of the study extends the finding on teaching methods influence to students. From many teaching methods examined to develop students in learning, most findings of the previous studies found that students perform and achieve differently. There are students who is achieving more, moderate and slightly better or less. Considering styles in the study typically provide a description why students perform differently when treated with certain methods.

E. Scope and the Limitation of the Study

The study focuses to investigate whether matching teaching technique with learners' preferred way of learning by using learning styles based on cultural dimension theory contribute to their learning achievement. To determine the students' learning styles, cultural dimension questionnaire by Hofstede (2009) was distributed to the students. The grammatical performance of the students was measured by using Structure and Written Expression Test Descriptors by Educational Testing Service (2014).

The target population of the study is limited to students involving in Student Activity Unit (UKM BAHASA) of the University of Muhammadiyah Makassar. From the organization, freshmen involving in the English language preparation are the sample of the study. In the teaching process, each learning styles was treated using appropriate teaching technique expected to help students learn based on their learning styles.

CHAPTER II

LITERATURE REVIEW

A. Theoretical Discussion

1. Learning Styles and Cultural Dimensions Theory

1.1. Learning styles in ELT

The term of learning styles since its first emergence has brought scholars attention. There are number of theories of learning styles proposed. Most related one to language teaching is the theory from Oxford (2003). The theory suggests that learning styles is merely the general approach while learning strategy is the specific action and/or behaviors in learning language. Oxford (2003) paradigm on learning styles are adopted from previous theories considered related to language teaching.

Learning styles are the common approaches –for illustration, worldwide or expository, sound-related or visual –that understudies utilize in procuring a unused dialect or in learning any other subject. These styles are the by and large designs that grant common course to learning behavior. Learning techniques are characterized as specific actions, behaviors, steps, or techniques--such as looking for out discussion accomplices, or giving oneself support to handle a troublesome dialect assignment -- utilized by understudies to improve their claim learning. When the learner deliberately

chooses techniques that fit his or her learning fashion and the L2 errand at hand, these techniques gotten to be a valuable toolkit for dynamic, cognizant, and intentional self-regulation of learning. Learning methodologies can be classified into six bunches: cognitive, metacognitive, memory-related, compensatory, emotional, and social.

Sensory preferences can be broken down into four primary ranges: visual, sound-related, kinesthetic (movement-oriented), and material (touch-oriented). Sensory preferences allude to the physical, perceptual learning channels with which the understudy is the foremost comfortable. Visual understudies like to study and get an extraordinary bargain from visual incitement. For them, addresses, discussions, and verbal bearings without any visual reinforcement can be exceptionally confounding. In differentiate, sound-related understudies are comfortable without visual input and so appreciate and benefit from unembellished addresses, discussions, and verbal headings. They are energized by classroom intuitive in role-plays and comparative exercises. They in some cases, be that as it may, have trouble with composed work. Kinesthetic and material understudies like parcels of development and appreciate working with substantial objects, collages, and flashcards. Sitting at a work area for exceptionally long isn't for them; they incline toward to have visit breaks and move around the room.

Extraverted vs. Introverted. By definition, extraverts pick up their most noteworthy vitality from the outside world. They need interaction with individuals and have numerous companionships, a few profound and a few not. In differentiate, thoughtful people infer their vitality from the inside world, looking for isolation and tending to have fair a couple of fellowships, which are regularly exceptionally profound. Extraverts and introverts can learn to work along side the assistance of the instructor. Implementing time limits within the L2 classroom can keep extraverts' excitement to a reasonable level. Turning the individual in charge of driving L2 discourses gives contemplative people the opportunity to take part similarly with extraverts

Intuitive-Random vs. Sensing-Sequential. Intuitive-random understudies think in theoretical, cutting edge, large-scale, and nonsequential ways. They like to form hypotheses and new possibilities, regularly have sudden bits of knowledge, and incline toward to direct their possess learning. In contrast, sensing-sequential learners are grounded within the here and presently. They like actualities instead of hypotheses, need direction and particular instruction from the educator, and hunt for consistency. The key to educating both intuitive-random and sensing-sequential learners is to offer assortment and choice: some of the time a profoundly organized structure for sensing-sequential learners and at other times numerous alternatives and improvement exercises for intuitive-random understudies.

Thinking vs. Feeling. Thinking learners are arranged toward the stark truth, indeed in case it harms a few people's sentiments. They need to be seen as competent and don't tend to offer praise effortlessly –even in spite of the fact that they might subtly crave to be lauded themselves. Now and then they appear segregated. In comparison, feeling learners esteem other individuals in exceptionally individual ways. They appear compassion and kindness through words, not fair behaviors, and say anything is needed to smooth over troublesome circumstances. In spite of the fact that they frequently wear their hearts on their sleeves, they need to be regarded for individual commitments and difficult work. L2 instructors can offer assistance thinking learners appear more noteworthy plain sympathy to their feeling classmates and can suggest that feeling learners might tone down their enthusiastic expression whereas working with thinking learners.

L2 learning strategies are particular behaviors or thought forms that understudies utilize to improve their own L2 learning. The word technique comes from the old Greek word technique which implies steps or activities taken for the reason of winning a war. The warlike meaning of strategy has luckily fallen absent, but the control and goal-directedness stay within the cutting edge adaptation of the word.

Cognitive strategy empower the learner to control the dialect fabric in coordinate ways, e.g., through thinking, investigation, note-taking,

summarizing, synthesizing, outlining, reorganizing data to create more grounded patterns (information structures), practicing in naturalistic settings, and practicing structures and sounds formally. Cognitive procedures were altogether related to L2 capability.

Metacognitive methodologies (e.g., distinguishing one's possess learning fashion inclinations and needs, arranging for an L2 assignment, gathering and organizing materials, organizing a consider space and a plan, observing botches, and assessing assignment victory, and assessing the victory of any sort of learning methodology) are utilized for overseeing the learning handle in general.

Memory-related strategies help learners connect one L2 item or concept with another but don't necessarily include profound understanding. Different memory-related strategies enable learners to memorize and recover data in an deliberate string (e.g., acronyms), whereas other procedures make learning and recovery through sounds (e.g., rhyming), pictures (e.g., a mental picture of the word itself or the meaning of the word), a combination of sounds and pictures (e.g., the catchphrase strategy), body development (e.g., add up to physical reaction), mechanical implies (e.g., flashcards), or area (e.g., on a page or chalkboard).

Compensatory strategies (e.g., speculating from the setting in tuning in and perusing; utilizing equivalent words and "talking around" the lost word to

helps cresting and composing; and entirely for speaking, utilizing signals or stop words) offer assistance the learner make up for lost knowledge.

Affective strategy, such as distinguishing one's disposition and uneasiness level, talking around sentiments, fulfilling oneself for great execution, and utilizing profound breathing or positive selftalk, have been appeared to be altogether related to L2 capability.

Social strategy (e.g., inquiring questions to urge confirmation, inquiring for clarification of a confounding point, inquiring for offer assistance in doing a dialect errand, talking with a native-speaking discussion accomplice, and investigating social and social standards) offer assistance the learner work with others and get it the target culture as well as the dialect.

1.2. Learning styles based on Cultural Dimensions Theory

in EFL context, culture may become the constraints to learn new language (Everett et al., 2005). Although involving social strategy which considers culture when learning the targeted language, the theory from oxford (2003) has not considered how students learning styles developed from cultural perspective which is the case of EFL learners' context. Learning styles seen from culture has been proposed by Zhang, Sternberg & Rayner (2012) that adopted hofstede's cultural dimensions theory.

The term of *Styles* in Zhang, Sternberg & Rayner (2012) is defined as individual preferred way of learning and generalized as *intellectual styles* which include cognitive style, conceptual tempo, decision making and problem-solving style, learning style, learning approach, mind style, perceptual style, and thinking style. The proposed theory adopted four of Hofstede's basic cultural dimensions. This includes *power distance, uncertainty avoidance, individualism (versus collectivism), and masculinity (versus femininity)*.

Hofstede (2009) defines *Power Distance* as "the extent to which the less powerful members of organizations and institutions (like the family) accept and expect that power is distributed unequally". Furtheremore, Zhang, Sternberg & Rayner (2012) illustrate Power Distance as anything related to human inequality that distinguishes social status power. The most relatable problem in power distance is inequality which refers to overlapping distributed power. Hofstede (2009) suggest that all international society are unequal but some are just more unequal than others. This setting is mostly found in a patriarchal community, for instance. In cognitive terms, larger power distance society enacts lower power people to undoubtedly accept ideas from more power individuals and let them think and make decision for lower power player (Zhang, Sternberg & Rayner, 2012).

Uncertainty Avoidance by Hofstede (2009) is defined as how society tolerates uncertainty and ambiguity. This refers to how one culture's social construction allows its community to deal with unknown setting, whether its members feel comfortable or uncomfortable with such situation. Community with high uncertainty avoidance commonly sets strict law and rule, believe, safety and security measures as one absolute truth. In another hand, Uncertainty accepting society is the opposite. This type of society is more apathetic and contemplative. In cognitive terms, uncertainty avoiding people tend to seek answer and guidance from others. While low uncertainty avoiding people are more relativistic considering other justification of behavior, act, and practice which results to this people tolerance (Zhang, Sternberg & Rayner, 2012).

Individualism/collectivism is the degree of one community's individual to individual integration (Hofstede, 2009). In individualist society, people more concern their personal interest rather than collective prominence. While in collectivist society, people are more integrated, cohesive in-groups and often time found to prioritize communal interest. In cognitive terms, Zhang, Sternberg & Rayner (2012) suggest that "people from individualist societies tend to think in ways that defy the crowd, whereas people from collectivist societies are inclined to think in ways that communicate conformity".

Masculinity/femininity constructs the distribution of role to gender. In a feminine society, women are assigned to the same modest, caring value as the man. In the masculine setting, women are somehow assertive and competitive but not as much as men, there is a gap between women's values and men' values (Hofstede, 2009). It is suggested that "In cognitive terms, people from masculine cultures tend to be engaged in new ways of thinking, whereas people from feminine cultures tend to be engaged in more conventional thinking" (Zhang, Sternberg & Rayner, 2012).

From the cognitive implication of those cultural dimensions, Zhang, Sternberg & Rayner (2012) propose three learning styles model from cultural perspective. Type I denotes preferences of task with low degrees of structure and like to do things in one own way. It is claimed that, this type of style is found in highly creative individuals. From this definition the researcher initiates to rename this type of learning style into *Self-driven Learner.* Type II learners prefer more simplistic way in processing information. It is found that this style was observed in people with lower creativity. The researchers rename this as *Forward learner*. Type III learners are those who whether perform Type I or Type II depending on the demand of the situation. From this description, the researcher names them as *Advanced Learners*.

From these learning preferences, Zhang, Sternberg & Rayner (2012) suggest that people living economically advanced and higher level of

modernity tends to employ Type I style. While people living in economically less developed and low level of modernity countries tend to employ Type II preferences. Zhang, Sternberg & Rayner (2012) claim that the proposed concept has been supported by existing styles research evidence. This includes field-dependence/independence, reflectivity–impulsivity, personality types, career interest types, learning approaches, and thinking styles.

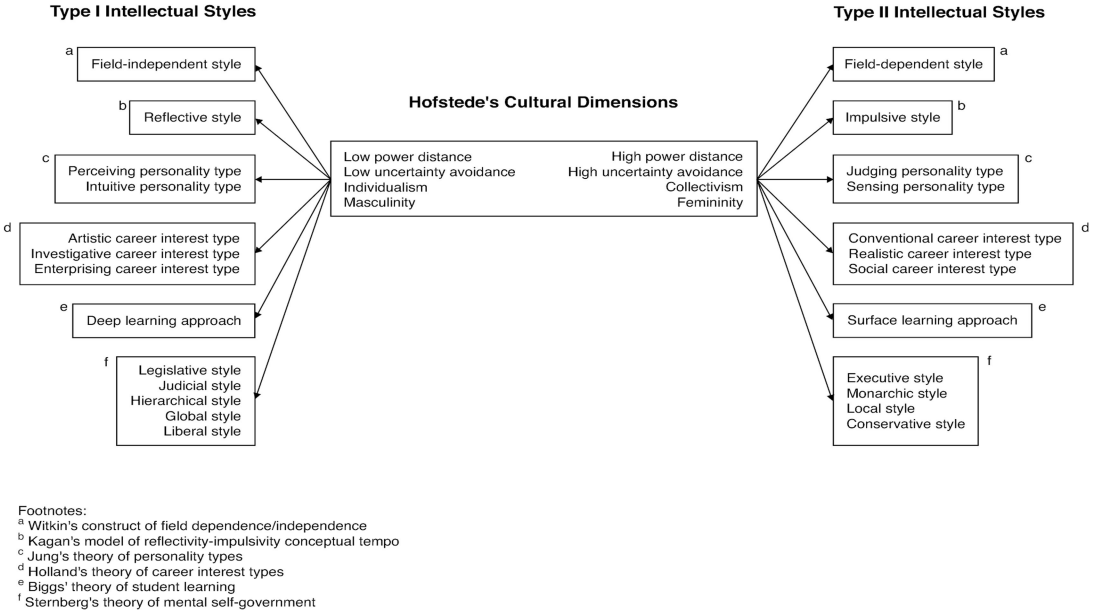

Figure 2. *Type of Intellectual Styles*

Source: Handbook of Intellectual styles; Preferences in Cognition, Learning, and Thinking (Zhang, Sternberg & Rayner, 2012)

a. Type I (Self-Driven Learner)

As described above that Type I denotes preferences of task with low degrees of structure and like to do things in one own way. It is

claimed that, this type of style is found in highly creative individuals (Zhang, Sternberg & Rayner, 2012). From this definition the researcher initiates to rename this type of learning style into *Self-driven Learner.*

b. Type II (Forward Learner)

Type II learners prefer more simplistic way in processing information. It is found that this style was observed in people with lower creativity (Zhang, Sternberg & Rayner, 2012). The researchers rename this as *Forward learner*. Teaching approach suitable for this style is direct material delivery without any teaching modification required.

c. Type III (Advanced Learner)

Type III learners are those who whether perform Type I or Type II depending on the demand of the situation. From this description, the researcher names them as *Advanced Learners.* Several studies have suggested that preferences in learning should be stretched to equip students with skills that can easily adjust them to learn in any learning climate (Tuan, 2011; Griffiths & İnceçay, 2016; Saeed & Yang, 2008). *Advanced Learners* are those who managed to stretch their learning styles and supposed to be performing well in any teaching methods.

2. Teaching Approach

Zhang, Sternberg & Rayner (2012) suggest that suitable teaching approach for each time is different. It is claimed that Type I (Self-Driven Learner) requires learning which apply students-centered learning while type II (Forward Learner) requires teacher centered-approach and Type III (Advanced Learner) learners are able to adapt with those two approaches.

a. Student-Centered Learning

Student-centered learning is teaching methods that shift the focus from teacher to students. The methods aim at developing learner autonomy (Jones, 2007). Student-centered learning focuses on developing students' skills and practices that allow the students to adjust themselves with problem solving (Young & Peterson, 2007). In learning, this method puts students' necessity first.

Methods includes in student-centered learning are cooperative learning, jigsaw, discovery learning and ect.

Cooperative learning allows students to be grouped and work collectively to an academic goal. Gillies (2016) suggests that cooperative learning allows teacher to organize the class into academic and social learning practices. This method exercise students creativity and higher order thinking task (Ross & Smyth, 1995).

Jigsaw is a teaching technique which divides students into groups working on several topics. Each student focuses on working on a topic and assigned to present and/or explain the learned topic to the other member of the group. The students are divided into topic groups to discuss their assigned topic (Perkins & Tagler, 2011).

Discovery learning is a technique which minimizes teacher guidance and fewer teacher explanations. It is suggested that effective discovery learning require teacher to provide guidance to the related task, students present their ideas with the teacher assessing the presentation, teacher provide example on how to finish the task.

b. Teacher-Centered Approach

Teacher-centered learning is often times referred to traditional learning because it is related to long-established custom of teaching. This method involves teacher as the main focus of teaching and learning process (Dewey, 1938). This teaching method is really depended on teacher competency of the subject learned (Kunter et al, 2013).

B. Previous Studies

Previous studies related to this research consist of learning styles and grammatical teaching and learning research.

In learning styles study, there are several findings that support the students' significant performance improvement in language learning by implementing teaching methods that favor their learning styles. For instance, Andreou, Andreou & Vlachos (2008) examine students' learning styles from different disciplines in learning English. The result of the research suggests that study disciplines of students do not influence their performance in learning. If students are taught based on their preferences, it will result to their maximum performance. The same finding was also revealed by Chen, Jones & Xu (2018) that teaching strategies may influence students of different learning styles. It is suggested that mismatching of teaching strategy and learning styles will disadvantage students in learning which has direct influence to their performance (Damrongpanit & Reungtragul, 2013). Tulbure (2011) investigate different teaching strategies implemented in different meeting and found that each learning style performed differently and significantly higher in certain teaching strategy.

Other findings of the previous study indirectly subject the results of above discussed results. The study conducted by Erton (2010) investigate whether personality traits is influential elements to students having different learning styles. The study found that students with different personality tend to have distinct preferences in learning. It likewise suggests that there is no

significant impact of learning styles to students' achievement when taught with different strategies.

Another issue that might be a problem to students in learning is raised by Gilakjani (2012). His study investigates the impact of learning styles in English language teaching. Firstly, it is suggested that if one model of teaching methods applied continuously, it will lead to a monotonous learning environment where not everyone will enjoy the lesson. This finding is supported by Das (2018) which suggest that monotonous environment will affect mood and cognitive performance. The study also suggest that even if learning styles is matched with favorable methods, teacher must employ different strategy of each meeting because monotonous teaching leads to non-favorable environment which result to lack of confidence (Gilakjani, 2012).

Another issue is also raised by Tuan (2011). His study suggests that students should not be taught according to their learning style category, what must be done is to balance the instructional methods to cover all learning styles at once. He propose that, in order for the students to be able to adjust in any kind of learning climate, teaching strategy must be designed to stretch students' learning styles. The study found that in mismatch class the students achieved the expected learning outcome. The study revealed that, the

teacher is the main factor that determines the class into relaxed atmosphere, encouraging, and corporative class by enhancing students' self-esteem.

There are several notable research findings in the previous study related to grammatical teaching. Aliakbari & Nejad (2013) examined the effect of co-teaching to the improvement grammatical proficiency. The study suggests insignificant result after implementing the approach. They state that securing the intended outcome of teaching requires consideration on cultural background. Research conducted by Jalalifarahani & Azizi (2012) examines the influence of peer feedback and teacher response in enhancing students' grammatical proficiency. The study suggests that teacher feedback is more helpful than peer feedback. This is due to students' lack of grammatical knowledge.

Incongruent finding is suggested by Moradkhan & Sohrabian (2009). Unlike any other research implication that suggests unconscious grammatical teaching, the study suggests that teacher need to explicitly teach the grammar feature to encourage a more concentrated communicative situation. This also allows students to focus within activities related to the material. Furthermore, research conducted by Farrokhi & Sattarpour (2012) suggests that teacher would better provide a focused feedback rather than randomly respond to students grammatical errors.

Unlike the previous studies, the present research will investigate students' learning styles from cultural perspective effect on their learning performance. Specifically, the study attempts to describe what may cause different results of several teaching methods in grammar teaching.

C. Conceptual Framework

Based on the theory above, the researcher conceptualized favorable teaching methods for each student's learning styles based on cultural dimensions theory.

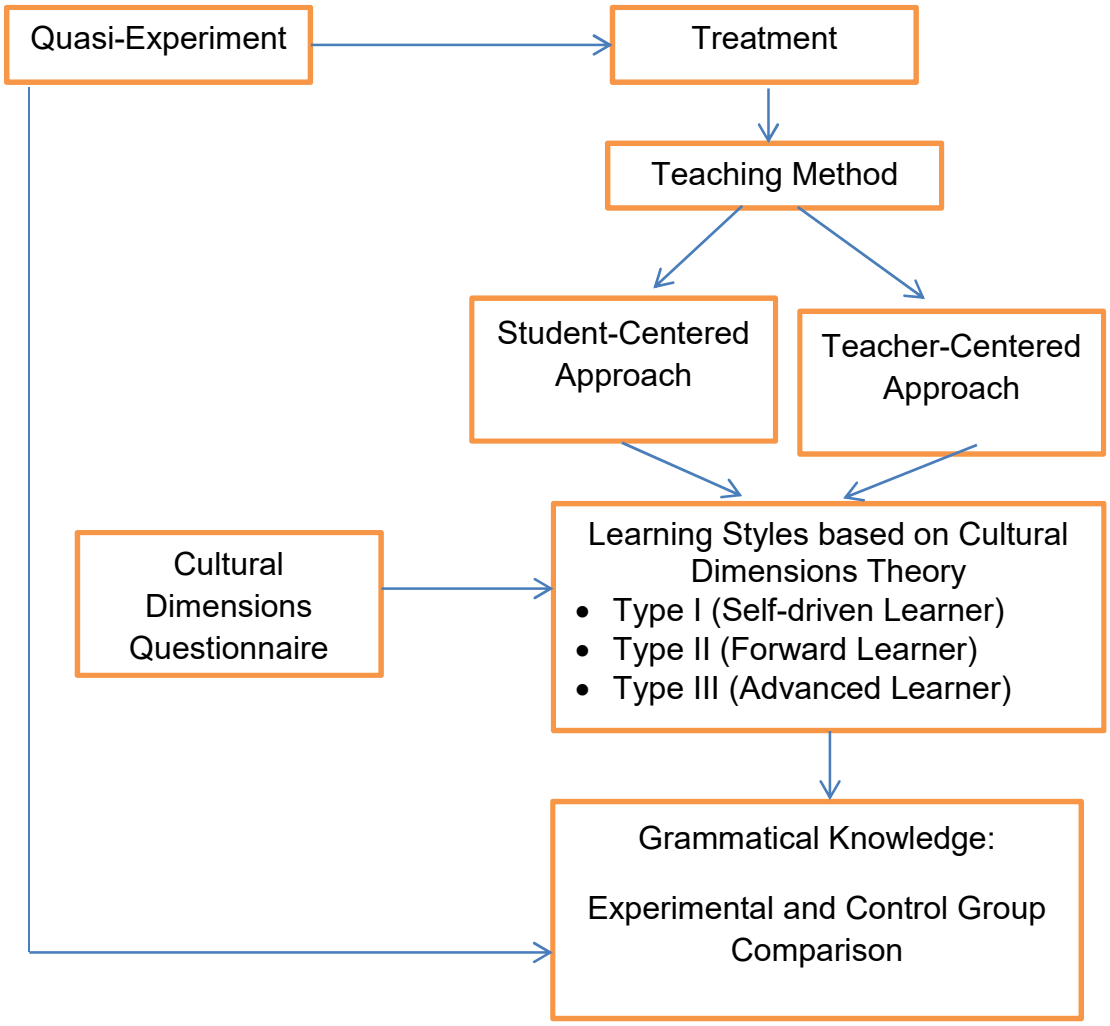

Figure 3. *Conceptual Framework*

D. Hypothesis

H_0: The Empowerment of EFL students' learning styles does not improve students' grammatical knowledge.

H_1: The Empowerment of EFL students' learning styles improves students' grammatical knowledge.

CHAPTER III

METHODOLOGY

This research uses quantitative study with quasi-experimental design that aims to investigate whether the empowerment of teaching method and students' learning styles based on cultural dimensions theory promote better grammatical learning. To further generate insights, researcher observation during the treatment is taken to account for students' performance.

A. Population and Sample

The population of this study is students of the University of Muhammadiyah Makassar taking English Language learning program in UKM BAHASA Unismuh Makassar (a student activity unit) that the participants come from various faculties. The grammatical proficiency of the students is unknown. These students organization program is chosen since most of the students registered in the program are seeking preparation to meet the graduation criteria of a TOEFL score.

To meet the study data requisite, non-probability sampling was used in collecting the data. The technique enables the researcher to provide appropriate treatment favorable to the expected outcome of the study.

B. Variables

The independent variable of the study is Learning Styles while the dependent variable is grammatical knowledge.

C. Research Instrument

1. Research Instrument for Data Collection

- Cultural Dimensions Questionnaire (Hofstede, 2009)
- Longman TOEFL Structure Pre-Diagnostic Test (Philips, 2001)
- Longman TOEFL Structure Post-Test (Philips, 2001)

2. Research Instrument for Data Analysis

- TOEFL ITP Score Descriptors (Educational Testing Service, 2014)
- Microsoft Office Excel 2010
- IBM SPSS Statistics V.26

D. Data Collection Method

The students were first distributed cultural dimensions questionnaire and given Structure and Written Expression Diagnostic Test as the pre-test. From the pre-test result, the research made sure whether the student homogenous or heterogeneous. If the students found to be heterogeneous, then it is important to provide different learning material to ensure the treatment is appropriate to their proficiency level.

The cultural dimensions questionnaire can be seen below:

1. ***Power distance questionnaire (high score = prefer large power distance)***

Children should be taught that their opinion is as important as their parents´.	1 2 3 4 5	Children should be taught to never question their parents´ authority.
Children should be taught to not take things for granted in the family or other	1 2 3 4 5	Children should be taught to accept the authority of older or important
In a company/organization, people must be able to create their own	1 2 3 4 5	All people in an organization or company have clearly defined roles.
People must not take the boss decisions for granted. Always question the actions of the	1 2 3 4 5	The boss makes all decisions. Everybody in the organization/ company accepts and respects
The most effective way to change a political system is through public debates and free elections.	1 2 3 4 5	The most effective way to change a political system is to replace those in power through drastic
TOTAL		

2. ***Uncertainty avoidance questionnaire (high score = prefer avoid uncertainty)***

Children must be taught to cope with chaos and ambiguity.	1 2 3 4 5	Children must be taught to be organized and to avoid ambiguity.
People who can move in different environments are appreciated in society.	1 2 3 4 5	High competence and expert leadership is appreciated in society.
People should not have to carry an ID.	1 2 3 4 5	People should always have an ID.

It is improper to express feelings in public.	1 2 3 4 5	It is OK to show feelings in public, at the right place and time.
Society has very few rules.	1 2 3 4 5	There are some rules and customs that all people must respect.
TOTAL		

3. Individualism/collectivism questionnaire (high score = prefer individualism)

People have strong loyalty to the group(s) they belong to.	1 2 3 4 5	People choose their friends based on common likes/dislikes/interests.
The conventions and rules of the group I belong to influence my behaviour.	1 2 3 4 5	I have full personal freedom.
I am concerned with what others think about me.	1 2 3 4 5	I am concerned only with my own rules and objectives.
People are promoted and recognized based on their loyalty and age.	1 2 3 4 5	People are promoted based on competence, no matter their age.
It is immoral for a boss not to offer a job to a relative.	1 2 3 4 5	It is immoral for a boss to offer a job to a relative.
TOTAL		

4. Masculinity/femininity questionnaire (high score = prefer masculinity)

I have sympathy for those who do not win and I envy others for their success.	1 2 3 4 5	I admire winners and I think those who lose must be punished.
At work, I am motivated by a relaxed, friendly atmosphere.	1 2 3 4 5	At work, I need to have clear objectives and an evaluation system for what
Decisions at work must be based on consensus.	1 2 3 4 5	Conflict is positive and productive.
A good quality of life is important for both men and women.	1 2 3 4 5	Men should be focused on material success and women must be concerned with the well-being of

I seek love and mutual affection in a partner.	1 2 3 4 5	What I want most from my partner is support in difficult situations.
TOTAL		

multiply your total x4 to get an approximate equivalent to these figures

Once students' learning type is determined, they were treated based on their learning styles. For the treatment process, the researcher employed both teacher-centered and student-centered approach. The match and mismatch treatment showed how this affected their learning. After the treatment, students were given the Structure and Written Expression Post-test. Through this, the students' progress after having treated teaching method assumed to be favorable and unfavorable to their learning styles was recorded.

E. Data Analysis Method

To determine the students learning styles, cultural dimensions questionnaires were distributed to the students after the pre-test. Each cultural dimension questionnaire result is multiplied by 4. Where students with 20-50 score result of each cultural dimension questionnaire is determined as Type I (Self-driven learner), 61-100 as Type II (Forward Learner), and 51-60 categorized as Type III (Advanced Learner).

Since this study employs Structure and Written Expression test as the data collection instrument, TOEFL Structure and Written Expression Score Descriptor was used in the data analysis. The description can be seen below:

TOEFL ITP® Section Scores	CEFR Level	Proficiency Descriptors
64–68	C1	**Test takers at this level are usually able to:** • understand less familiar verb tenses, subjunctive mood and reduced clauses, such as "while eating" and "how to go" • monitor interactions among various elements in a complex sentence for completeness of sentence structure, singular/plural agreement, etc. • deal with idioms and multiple usages of words, such as "so" and "as" • recognize different levels of abstraction or formality in choices, such as "in an agreement"/"in agreement" and "The star was just discovered recently"/"Only recently was the star discovered"
53–63	B2	**Test takers at this level are usually able to:** • use suffixes and other morphemes in crafting appropriate word forms • modify nouns by adding participles, relative clauses, appositives, etc. • deal with multiple and less frequent uses of common words • understand limitations imposed by the use of specific vocabulary, as with phrasal verbs such as "refer to" in which only a particular preposition may follow a particular verb • recognize acceptable variations in basic grammatical rules, as well as exceptions to those rules
43–52	B1	**Test takers at this level are usually able to:** • use common tenses of verbs correctly, including passive forms • use linking verbs with ease and use an expletive, such as "there is" in the absence of another main verb • recognize when verbs require objects, such as infinitives, gerunds or clauses beginning with "that" • introduce a clause with very common words, such as "before" or "if" • recognize the correct structure of a sentence or clause, even when its subject and verb are slightly separated
32–42	A2	**Test takers at this level are sometimes able to:** • demonstrate familiarity with the most often used tenses of common verbs • use a singular or plural noun correctly as the subject of a sentence in very simple contexts • link subjects to nouns or adjectives with very common linking verbs • recognize that some common verbs require nouns as objects • make proper use of simple comparatives and common conjunctions and prepositions

Source: (Philips, 2001)

To determine whether the overall students are homogeneous or heterogeneous, the pre-test and post-test were analyzed using ANOVA (Analysis of Variance) test through IBM SPSS statistics V.26. To identify both the increase and decrease of the learning achievement, the pre-test and post-test will be compared through Wilcoxon Statistics Test in IBM SPSS statistics V.26.

CHAPTER IV

RESULTS AND DISCUSSION

A. Students' Learning Style Profile of the University of Muhammadiyah Makassar

Table 2. Learning Styles Based on Cultural Dimensions Questionnaire

No	Power Distance	Uncertainty Avoidance	Individualism/ Collectivism	Masculinity Femininity	Average	Learning Style
1	52	36	56	44	47	Type 1
2	44	56	52	36	47	Type 1
3	36	60	60	36	48	Type 1
4	36	72	36	52	49	Type 1
5	52	56	44	44	49	Type 1
6	52	36	72	36	49	Type 1
7	44	36	60	60	50	Type 1
8	44	44	44	60	48	Type 1
9	52	36	56	52	49	Type 1
10	60	36	44	52	48	Type 1
11	72	68	76	68	71	Type 2
12	68	76	84	72	75	Type 2
13	52	76	72	84	71	Type 2
14	68	84	84	60	74	Type 2
15	68	76	76	72	73	Type 2
16	76	72	68	76	73	Type 2
17	68	76	72	68	71	Type 2
18	76	60	84	72	73	Type 2
19	76	72	76	68	73	Type 2
20	68	72	84	72	74	Type 2
21	52	76	60	44	58	TYPE 3
22	44	84	60	44	58	TYPE 3
23	44	84	56	48	58	Type 3
24	52	76	60	44	58	Type 3
25	52	76	52	52	58	Type 3
26	52	76	68	36	58	Type 3
27	60	60	52	60	58	Type 3
28	44	72	60	60	59	Type 3

29	52	60	76	52	60	Type 3
30	68	60	60	52	60	Type 3

Source: Primary Data Processing Result, 2020

The data results are generated from commonly South Sulawesi students which generally embrace similarly cultures values. Moreover, The present study shows diverse questionnaire results. This indicates that modernization has taken place in shaping cultural values individually.

B. Statistical Test Results

Before proceeding to conducting statistical data, there is a need of normality test to determine whether the data distribution entails either parametric or non-parametric test. The overall number sample in this study is 32. This indicates that the normality test must be using Shapiro-Wilk test.

Table 3. Data Normality Test Results

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Type 1 Pre Test Experiment	.243	5	.200*	.894	5	.377
Type 1 Post Test Experiment	.237	5	.200*	.961	5	.814
Type 1 Pre Test Control	.339	5	.062	.754	5	.033
Type 1 Post Test Control	.473	5	.001	.552	5	.000
Type 2 Pre Test Experiment	.300	5	.161	.883	5	.325
Type 2 Post Test Experiment	.372	5	.022	.828	5	.135
Type 2 Pre Test Control	.367	5	.026	.684	5	.006
Type 2 Post Test Control	.337	5	.066	.676	5	.005
Type 3 Pre Test Experiment	.473	5	.001	.552	5	.000
Type 3 Post Test Experiment	.367	5	.026	.684	5	.006
Type 3 Pre Test Control	.300	5	.161	.883	5	.325

Type 3 Post Test Control	.231	5	.200*	.881	5	.314

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Source: Primary Data Processing Result, 2020

From the results of the data normality test above, although the total data satisfies the needs of a parametric test but some of the data significance are less than 0.05 which indicates that the data are not distributed normally and are not qualified to do a parametric statistics test such as paired sample t-test. Thus, the data must be analyzed using non-parametric test such as *Wilcoxon test.*

1. Students' Grammatical Proficiency Level from Pre-test Results

Table 4. Descriptive Statistics of Students Proficiency Level from Pre-Test Result

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Type 1 Pre Test Control	5	260	310	296.00	21.909
Type 2 Pre Test Control	5	290	310	302.00	10.954
Type 3 Pre Test Control	5	270	310	290.00	14.142
Type 1 Pre Test Experiment	5	270	310	288.00	17.889
Type 2 Pre Test Experiment	5	270	310	290.00	14.142
Type 3 Pre Test Experiment	5	290	310	306.00	8.944
Valid N (listwise)	5				

Source: Primary Data Processing Result, 2020

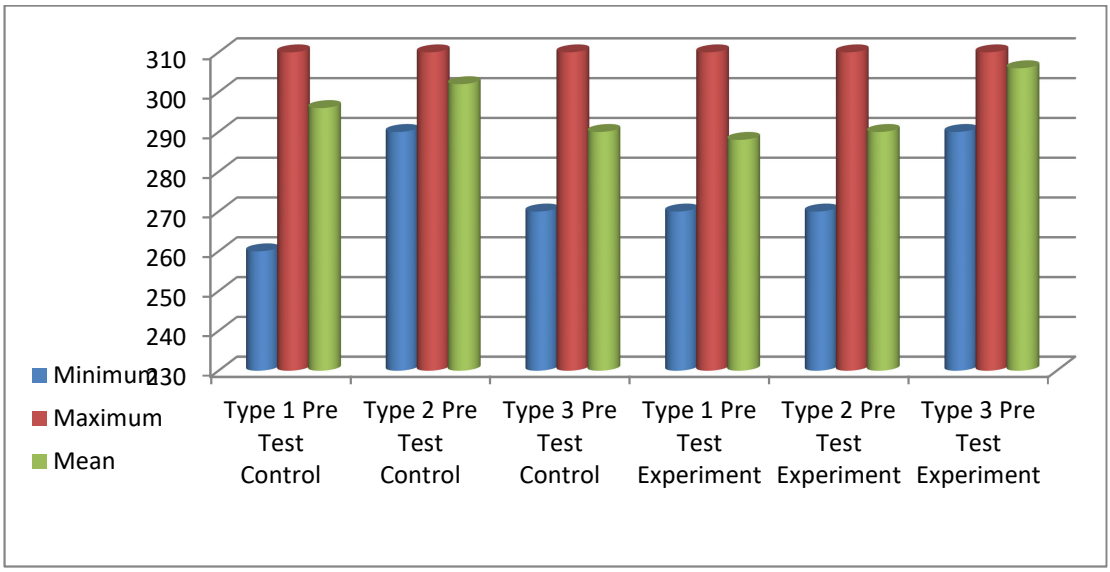

Figure 4. *Grammatical Proficiency Category based on Pre-Test*

The above results indicates that Type I learners score minimum 290 and maximum 310. Type II learners score minimum 270 and maximum 310. Type III learners score minimum 260 and maximum 310. In general, both figure and table above illustrate that all students score differently in the pre-diagnostic TOEFL test. Although each student performs differently but their proficiency category are all below standard of beginner level (A2=320).

Table 5. One-way Analysis of Variance

ANOVA

Score Result

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1346.667	5	269.333	1.154	.360
Within Groups	5600.000	24	233.333		
Total	6946.667	29			

Source: Primary Data Processing Result, 2020

The result of the one-way ANOVA analysis above shows sig. value 0,360 (p>0,005) indicating that there is no significant differences students grammatical knowledge from all types of learning styles of both experimental and control groups. Thus, there is no need to cluster students based on their proficiency levels during the treatment process.

2. Comparison of Pre-Test and Post Test

Table 6. Wilcoxon Signed Rank Test of Type I Experimental Group Pre-Test and Post-Test

		N	Mean Rank	Sum of Ranks
Type 1 Post Test Experiment - Type 1 Pre Test Experiment	Negative Ranks	0[a]	.00	.00
	Positive Ranks	5[b]	3.00	15.00
	Ties	0[c]		
	Total	5		

Source: Primary Data Processing Result, 2020

The above table indicates that there is no student scores lower than and/or scores the same with the pre-test result. While all of the students successfully performed improvement in their grammatical proficiency.

Table 7. Wilcoxon Test Statistic Result of Type I Experimental Group Pre-Test and Post-Test

	Type 1 Post Test Experiment - Type 1 Pre Test Experiment

Z	-2.023[b]
Asymp. Sig. (2-tailed)	.043

Source: Primary Data Processing Result, 2020

The Wilcoxon statistic test result shows significance value of 0.043 (>0.005). This indicates that there is an improvement in the Type I students' performance of the experimental group after taught based on their learning styles.

Table 8. Wilcoxon Signed Rank Test of Type I Control Group Pre-Test and Post-Test

		N	Mean Rank	Sum of Ranks
Type 1 Post Test Control - Type 1 Pre Test Control	Negative Ranks	0[a]	.00	.00
	Positive Ranks	5[b]	3.00	15.00
	Ties	0[c]		
	Total	5		

Source: Primary Data Processing Result, 2020

The above table shows that there is no student in the control group scores lower than and/or scores the same with the pre-test result. While all of the students successfully performed improvement in their grammatical proficiency.

Table 9. Wilcoxon Test Statistic Result of Type I Control Group Pre-Test and Post-Test

	Type 1 Post Test Control - Type 1 Pre Test Control
Z	-2.060[b]
Asymp. Sig. (2-tailed)	.039

Source: Primary Data Processing Result, 2020

The Wilcoxon statistic test result shows significance value of 0.039 (>0.005). This indicates that improvement in the Type I students' performance of the control group was likewise present.

Table 10. Wilcoxon Signed Rank Test of Type II Experimental Group Pre-Test and Post-Test

		N	Mean Rank	Sum of Ranks
Type 2 Post Test Experiment - Type 2 Pre Test Experiment	Negative Ranks	0[a]	.00	.00
	Positive Ranks	5[b]	3.00	15.00
	Ties	0[c]		
	Total	5		

Source: Primary Data Processing Result, 2020

Table 10 shows no students that score lower than and the same with the pretest. All students score higher than the pre-test result with mean score 2.50. It indicates that the Type II students of experimental group successfully score better after taught based on their learning styles preferences.

Table 11. Wilcoxon Test Statistic Result of Type II Experimental Group Pre-Test and Post-Test

	Type 2 Post Test Experiment - Type 2 Pre Test Experiment
Z	-2.032[b]
Asymp. Sig. (2-tailed)	.042

Source: Primary Data Processing Result, 2020

The Wilcoxon statistic test result of table 10. shows significance value of 0.042 (>0.005). This indicates that improvement from pre-test to post-test in the Type II students' performance of the experimental group was likewise present.

Table 12. Wilcoxon Signed Rank Test of Type II Control Group Pre-Test and Post-Test

		N	Mean Rank	Sum of Ranks
Type 2 Post Test Control - Type 2 Pre Test Control	Negative Ranks	0[a]	.00	.00
	Positive Ranks	5[b]	3.00	15.00
	Ties	0[c]		
	Total	5		

Source: Primary Data Processing Result, 2020

Table 12 shows no students that score lower than and the same with the pretest. All students score higher than the pre-test result with mean score

3.50. It indicates that the Type II students of control group also score better than the pre-test.

Table 13. Wilcoxon Test Statistic Result of Type II Control Group Pre-Test and Post-Test

	Type 2 Post Test Control - Type 2 Pre Test Control
Z	-2.032[b]
Asymp. Sig. (2-tailed)	.042

Source: Primary Data Processing Result, 2020

The Wilcoxon statistic test result in table 13 shows significance value of 0.042 (>0.005). This indicates that improvement from pre-test to post-test in the Type II students' performance of the control group was likewise present.

Table 14. Wilcoxon Signed Rank Test of Type III Experimental Group Pre-Test and Post-Test

		N	Mean Rank	Sum of Ranks
Type 3 Post Test Experiment - Type 3 Pre Test Experiment	Negative Ranks	0[a]	.00	.00
	Positive Ranks	5[b]	3.00	15.00
	Ties	0[c]		
	Total	5		

Source: Primary Data Processing Result, 2020

Table 14 shows no students that score lower than and the same with the pretest. All students score higher than the pre-test result with mean score 4.50. It indicates that the Type II students of experimental group successfully score better after taught based on their learning styles preferences.

Table 15. Wilcoxon Test Statistic Result of Type III Experimental Group Pre-Test and Post-Test

	Type 3 Post Test Experiment - Type 3 Pre Test Experiment
Z	-2.041[b]
Asymp. Sig. (2-tailed)	.041

Source: Primary Data Processing Result, 2020

The Wilcoxon statistic test result of table 15 shows significance value of 0.041 (>0.005). This indicates that improvement from pre-test to post-test in the Type II students' performance of the experimental group was likewise present.

Table 16. Wilcoxon Signed Rank Test of Type III Control Group Pre-Test and Post-Test

		N	Mean Rank	Sum of Ranks
Type 3 Post Test Control - Type 3 Pre Test Control	Negative Ranks	0[a]	.00	.00
	Positive Ranks	5[b]	3.00	15.00
	Ties	0[c]		

Total	5		

Source: Primary Data Processing Result, 2020

Table 16 shows no students that score lower than and the same with the pretest. All students score higher than the pre-test result with mean score 4.50. It indicates that the Type II students of control group also score better than the pre-test.

Table 17. Wilcoxon Test Statistic Result of Type III Control Group Pre-Test and Post-Test

	Type 3 Post Test Control - Type 3 Pre Test Control
Z	-2.032[b]
Asymp. Sig. (2-tailed)	.042

Source: Primary Data Processing Result, 2020

The Wilcoxon statistic test result in table 17 shows significance value of 0.042 (>0.005). This indicates that improvement from pre-test to post-test in the Type II students' performance of the control group was likewise present.

3. Comparison of Experimental and Control Group

To analyze whether the students from experimental groups score more significant than the control group, Kruskal Wallis of K-Independent test is carried out.

Table 18. Kruskal Wallis Test Statistics Results

Test Statistics[a,b]

	Score Result
Kruskal-Wallis H	18.110
df	5
Asymp. Sig.	.003

a. Kruskal Wallis Test

b. Grouping Variable: Class

Source: Primary Data Processing Result, 2020

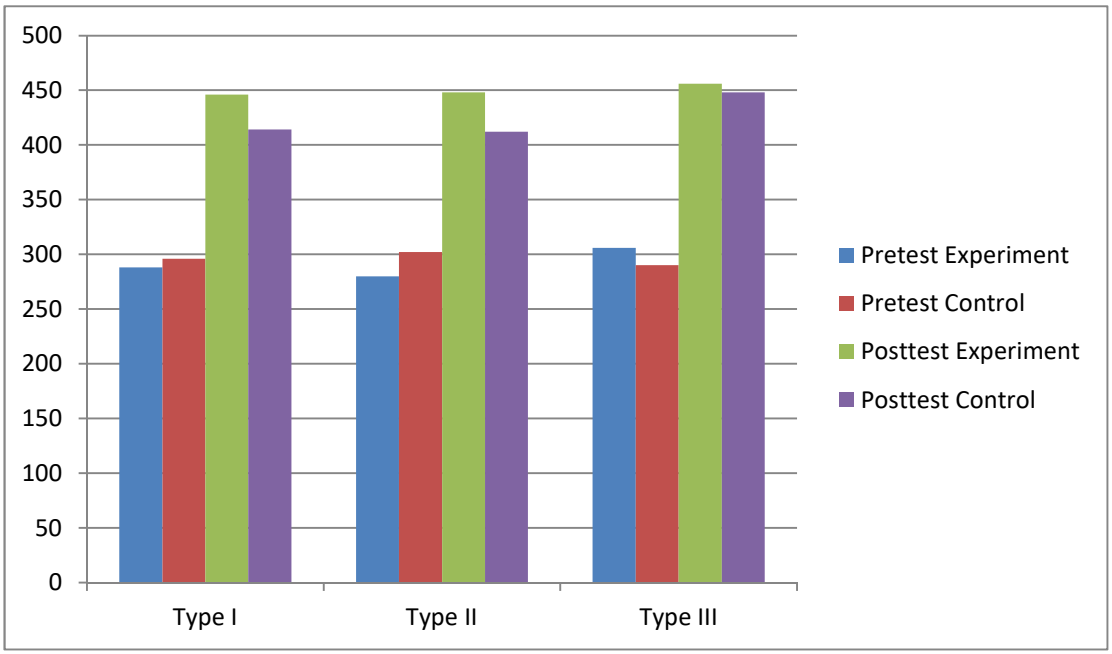

Figure 5. *Comparison of Students Performance of Experimental and Control Group*

Table 18 shows significance value of 0,003 (<0,005). This indicates that there is a different result of learning outcome when students are taught based on their learning styles. Yet, as can be seen in figure 7 and table 18 showing asymp sig. value of 0.003 which is an indication that the different results suggest only a slight improvement compared to control group performance in grammatical learning.

Interestingly, Type III (Advanced Learner) post-test from both experimental and control group score very slightly different. This confirms that Advanced-learner is adaptable to both teacher-centered and student-centered learning.

4. Hypothesis Testing

Table 19. Hypothesis Testing with Chi-Square

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	49.600[a]	25	.002
Likelihood Ratio	46.039	25	.006
Linear-by-Linear Association	1.620	1	.203
N of Valid Cases	30		

a. 36 cells (100.0%) have expected count less than 5. The minimum expected count is .50.

The results of hypothesis testing using chi-square test indicate Asymp. Sig. value 0,002 (<0,005). This indicates that H0 is rejected and Ha is accepted.

This means that there is improvement of learner performance when taught using methods favorable to their learning styles.

5. Observation

In the teacher centered group, students regularly asking questions are not predetermined by their learning styles. Whether students type I, type II, or type III, they would ask question if they need to. It likewise the same when teacher asked intriguing questions. While in the students centered group, it is somehow clear that type II learners are passive in group but quite active when teacher took over asking questions relating to uncovered material during the expert group explanation.

It is possible, if referred to students' learning outcome, that type I learners develop expertise on material when they are exposed to certain learning cycle which involves material learning, practice, and problem solving. This is due to type I learning outcome that is fairly lower than those in the student-centered group.

C. DISCUSSION

1. The Distribution of Students Learning Styles

From the results of the cultural dimensions questionnaire, even if students are coming from common tribes of South Sulawesi, different learning style is present. The present research result suggests contradicting findings with the

Hofstede's cultural dimensions insights and is an indication of modernization effect at individual level.

Dwairy & Achoui (2010) suggest that modernization may reconstruct a community from individualist into collectivist. Changes that occur within cultures due to values exchange caused by modernization at the same time transform individuals' perspective and thinking (Abdulaeva, 2019). Both findings support the present research that learning styles may change due to modernization.

Yet, those previous studies does not implicitly examine whether there is a proof of changes in learning styles after individual is influenced by modernization. Moreover, the results of the present study supports that there is a change of learning styles of students after students are accustomed to distinct course of setting.

Present research finding of learning styles theory that considers culture as determining factor of students' cognition suggests that there is no such one absolute learner type. It supported by the result of the present study that shows a fairly close range score of Type I, II, and III from cultural dimensions questionnaire results and students' achievement.

Furthermore, there is also a high possibility that it is not modernization that changes the students' learning styles. This is due to existing educational system that does not consider personality differences especially learning

styles. The fact that the control group likewise shows consistent but slightly lower than the experimental group learning outcome, it is an indication that there is a possibility that students taught with various methods has been a factor leading to the preferences development. Research by Tuan (2011) suggests related cases that adjustment in learning occurs within students even if not taught based on their styles cluster. This result indicates similar outcome with the present study.

To be fair, it is possible that both modernization and the diversity of teaching methods are contributing factors of students' learning styles development.

2. Synchronizing Learning Styles and Teaching Methods

The present study results indicate a slight difference when students are taught based on their learning styles rather than conventional teaching that do not cluster students. The result of the present study is indeed slight but consistent. This is in line with the previous research finding that students are favored when taught based on their learning styles (Andreou, Andreou & Vlachos, 2008).

Furthermore, Tulbure (2011) suggests that each learning style performed differently and significantly higher in certain teaching strategy. The present study supports this but somehow extend the analysis to one learning

styles that is adjustable to both teacher-centered and student-centered learning.

Moreover, the study of Chen, Jones & Xu (2018), Damrongpanit & Reungtragul (2013), Erton (2010) contradicts the present finding which suggest that students will be disadvantage when not taught with their learning styles. The present study result does suggest that students will be at their best performance when taught based on their learning styles but not the extent to be disadvantaged. The students will be performing well even if not taught based on their learning styles but at their best performance when taught based on their learning styles that boost their achievement learning.

Finally the present study has provided implication that considering students learning styles from cultural dimensions perspective will enhance, although slight, students perform better in learning grammar.

CHAPTER V

CONCLUSION AND RECOMMENDATION

A. CONCLUSION

The present study has indicated two major contributions. Firstly, learning styles distribution is diverse. Two students from the same cultural background may have distinct learning styles. This is most likely predisposed by the modernization an individual exposed to. Secondly, considering students learning styles based on cultural dimension theory by matching students learning styles will help students boost their achievement.

B. RECOMMENDATION

1. Teacher is recommended to bring learning styles based on cultural dimension theory into practices.
2. Teaching method needs to be designed to help students stretch their learning styles and/or adjust the students with any teaching setting that makes them to be advanced-learner.
3. Further research involving a longitudinal study is worth conducting to investigate the development of students learning styles.

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APPENDICES

A. Sample of Cultural Dimensions Questionnaire

Pre Test and Post Test Results

Experimental Group

Pre-Test	Proficiency Level	Post-Test	Proficiency Level
290	A1	450	B1
310	A1	430	B1
300	A1	440	B1
270	A1	460	B1
270	A1	450	B1
290	A1	460	B1
310	A1	450	B1
290	A1	430	B1
290	A1	450	B1
270	A1	450	B1
310	A1	460	B1
310	A1	460	B1
290	A1	460	B1
310	A1	450	B1
310	A1	450	B1

Control Group

Pre-Test	Proficiency Level	Post-Test	Proficiency Level
310	A1	410	A2
290	A1	410	A2
260	A1	430	B1
310	A1	410	A2
310	A1	410	A2
310	A1	450	B1
310	A1	410	A2
290	A1	400	A2
310	A1	400	A2
290	A1	400	A2
290	A1	450	B1
310	A1	450	B1
270	A1	440	B1
290	A1	460	B1
290	A1	440	B1