



Using Chain Massage Game to Support Young Learners' VAK Learning Style

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ABSTRACT

The research examined the use of a chain massage game to accommodate the visual, auditory, and kinesthetic learning style of the young learners. It discovered how the teacher prepared and implemented the chain massage games, and how it accommodated and profited the visual, auditory, and kinesthetic students learning style. This research was a qualitative study and used observation and interview as the data collection techniques. The result showed that the teacher prepared and applied the chain massage game very well, could control all the students, and did all the steps she planned in applying the game in the class, and the students learned English excitedly. Furthermore, it was revealed that there were four advantages of using chain massage game. The first advantage is that playing the game fosters interaction between the teacher and students, as well as between students and their classmates. Second, instruction becomes more student-centered. Third, engaging students in the teaching-learning process through the chain massage game is successful, especially at the elementary level. The fourth advantage is that the chain massage game enables students to practice new vocabulary.

Keywords: *Game, Chain Message, VAK Learning Style, Young Learners.*

INTRODUCTION

English language instruction should begin at the elementary school level so that young learners can be assisted in learning English at the next level of their educational development. The goal of English instruction in elementary school is to familiarize young learners with the English language while also developing language abilities that can be used to assist them. Therefore, a teacher has a task to lead young learners at elementary school through actions.

They can teach the students by producing simple utterances or simple conversations, reading aloud phrases, clauses, and straightforward sentences. So, a teacher can provide activities that make young learners participate in activities while studying English to familiarize them with the language. An English teacher at an elementary school cannot explain the lesson to young learners by writing the material on the whiteboard and ask young learners to do exercises in the notebook only, which will drive

young learners tired of learning English. As stated by Piaget in Santrock (1994), young learners at the age of 7 to 11 are in the concrete stages according to their cognitive development. It means elementary school students can only be taught using tangible things because they will struggle with abstract concepts since no demonstration using concrete things help them learn.

Young learners learn best if they are involved in the teaching-learning process. Piaget in Santrock (1994) suggested that young learners develop through specific stages, they are sensory-motor stage: the period from birth up to the age of two, the preoperational stage, which is the period from the age of 2 up to the age of 7, concrete operational stage, formal operational stage, from the age of 7 up to the age of 11, and from 11 to the adulthood. And this research focuses on the proper active stage that the research participants are the students from the age of 7 to 11 years old.

Moreover, there is a need to understand students' learning styles to assist them in learning more effectively. It is in line with Gilakjani & Ahmadi (2011) as cited in Astri (2018) who supported that it is very important to understand and explore each individual's learning style

Ramadian et al (2019) compose that student acquires the materials better when they use their learning style appropriately. A learning style means an individual's ideal ways of collecting, arranging, and thinking about a piece

of information (Davis in Fleming et al, 2019). Yuliani et al. (2019) write that there is a huge contribution of learning style for the students' acquisition.

There are some experts' opinion found regarding learning style. Keefe in Felder et al. (2005) argues that learning styles consist of cognitive, attentive, and psychological behaviors They serve as markers of students' awareness of, communication with, and response to, their learning environment. Then, Fleming et al. (2006) and Awla (2014) mention learning style as one of the most common of the various type of learning techniques model. Fleming divides the learning style into four. They are auditory, visual, auditory, and kinesthetic. Auditory learning style is learning by hearing how the students use their ears as tools to absorb the information. The visual learning style is the one that uses their eyes better to comprehend the information.

Furthermore, Montuori et al. (2018) examine the division of visual students into two groups. First, they are the distinction in terms of how they obtain information. Students that are visual-external pick items depending on their color and look. This type of learner prefers to sit in the front of the class so that they can readily view the lecturers or lectures in front of them. Visual-internal, on the other hand, obtain knowledge through visualizing the notion. They may upload the new information as they have it. The chain message game is not presently supported for visual-internal students; however, this may change with future research. And

kinesthetics learning style is the one that uses body movements to understand the information. Some of the characteristics of kinesthetics students are that they tend to speak slowly, touch somebody to attract their attention, stand nearly to whom they speak, move a lot, study through manipulation and practice memorizing with walking and seeing, use a finger as a pointer when reading, use body language, cannot stay quiet for a long time; use words related to action, like to read a book that is oriented to plot, and probably their handwriting is not good enough. (Nidhi et al., 2019).

Visual, auditory, and kinesthetics learning styles can be used to understand the information intuitively and provides a helpful way to understand it (Fleming et al., 2006; Awla, 2014; Nidhi et al., 2017). Moreover, Suaib (2017) finds that including the visual, auditory, and kinesthetic learning styles in vocabulary instruction improved students' success, as the experimental group's mean vocabulary score on the posttest was substantially higher than the control group's (82.40 > 58.80). Moreover, he also discovers that students demonstrate a high level of interest in visual, auditory, and kinesthetic learning style. Considering the students learning style in giving learning activity in the class affects both process and result. It is in line with Almomani (2019) who finds that there are statistically significant variations in the types of learning patterns chosen by students, the result on the gender variable, and the effect

of learning patterns on students' physics achievement.

It can be inferred that every student is different, that they have different characteristics and interests and cannot be treated in the same way. If one is proficient in mathematics, it does not follow that the other must be as well. It is in line with Saeed et al. (2015), who finds substantial variations in learning styles according to college major that each major is unique and has its own set of difficulties.

Several teaching activities may be implemented in the classroom to assist students in enhancing the content presented; one such activity is a game. Santrock (1994) defines the game as the students are engaged in a pleasurable pastime. He adds that games have many forms: storytelling, pretend games, role games, games, drawing, singing, social game, acting games, and games involving playing with objects. Since the game has many forms, it is essential to categorize the game to understand it quickly and make it easy to get involved in the learning process.

According to Linwood (2004), the game is categorized into several categories. They are physical games, expressive games, manipulative games, symbolic games, dramatic games, familiarization games, and games. The physical game is the first category in which young learners participate. They run, jump, and join in activities such as hide-and-peek. These games are social, as they need several students to collaborate. Additionally, it includes workouts

that are necessary for average growth. The second game is an expressive one that allows young children to express themselves through interaction with items. Paints, finger paints, watercolours, crayons, coloured pencils and markers, clay, and drawing paper are utilized in the expressive game. Following that, the manipulative game is the next type of game that children may use to acquaint themselves with their environment. They begin manipulating the environment and other people from infancy. The fourth type of game is a symbolic game with no rules and allows the kid to reinforce, learn from, and imaginatively modify traumatic events. Young children can utilize the symbolic game to help them cope with their anxiety of separation when they go to school or the hospital. The symbolic game frequently begins at the age of 18 months, peaks around 4 to 5 years, and then progressively diminishes (Santrock, 1994). As a result, this game is appropriate for kindergarten students.

The fifth category is dramatic gaming, in which students role-play events that they feel will happen to them, that they are frightened will happen to them, or that they have observed. It can be spontaneous or directed and may be beneficial for young, hospitalized students. The sixth game is a familiarization game in which students use objects and explore experiences so that they are exposed to potentially frightening and unpleasant situations, such as surgery or parental separation. The final one is a recreation that was the emphasis of this investigation. The

chain massage game teaches young children by playing and according to the rules, which is classified as a game (Limwood, 2004).

Based on the explanation above, the aim of this research is to discover the teacher's preparation and application of chain massage games to accommodate visual, auditory and kinesthetics students learning style. Then, the research is limited to "How does the game accommodate VAK (visual, auditory, and kinesthetics) learning style of 4th grade students in learning English? And what are the advantages of using game in young learners' English class?". This research aims to explain the preparation and application of the chain message games used by the teacher in her class and how she applies it in teaching English to accommodate young learners' learning styles (visual, auditory, and kinesthetic). It is hoped that this can inspire other teachers to involve games in their teaching.

METHOD

The research design was a qualitative method that concluded the theories of visual, auditory, and kinesthetic learning style naturally (Creswell et al., 2018) and figured out the teacher's and the student's opinion in applying chain massage games in their class. The participants in this research were 1 teacher and 40 students of grade 4 in one elementary school in Bandung.

There were two data collection techniques used. First, observation was an activity of paying attention to search

information of what happened in the class when a teacher applied chain message games which gathered information about the teacher and the students at the research site (Creswell, 2012). The field observation was done without interaction with the participants. Second, interview was done to the teacher as an interaction in the form of a conversation. This research used a semi-structured interview that was in a relaxed situation so that the teacher talked freely. The guide questions were prepared, and then the follow-up questions were intended to allow the teacher to interpret the question and encouraged them to give detailed responses.

Furthermore, the data were analyzed in some steps (Creswell et al., 2018). It was started by organizing and preparing the data collected to be analyzed. It included the process of gathering all observation results and the transcription of the interview data. Then, the data were scanned and analyzed by finding general ideas of participants' opinions and coded the data by organizing them. The last step was generating a description and themes and representing the description and its themes into findings and conclusion.

FINDING AND DISCUSSION

Discussion is divided into two parts, an explanation of how and what the teacher does to apply the chain message games, and the advantages of using games to support students' VAK learning styles.

1. Games to support VAK learning style

The first discovery and discussion is about how the chain message games were implemented by the teacher in the classroom setting and how it support visual, auditory and kinesthetics students learning style. It is the teacher's role in this teaching and learning activity process to act as a facilitator to her students (Suaib, 2017), which means that the teacher does not only explain the lesson but also facilitates the teaching and learning activity process for her students. According to the data from interview, the teacher makes learning more enjoyable for her students by planning entertaining learning activities by using game. She claims that the purpose of preparing games is to provide students with a fun learning environment so that the teaching and learning process is not monotonous.

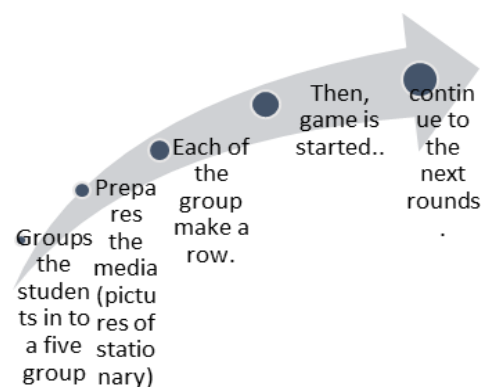


Figure 1. The Steps of Conducting the Game.

The teacher chooses the material for semester two of grade four. Young learners should learn vocabulary around the class context such as the stationery, part of the body, and things in the classroom. According to the information gathered through observation, the

topic chosen is about the stationeries in my box as the topic for learning vocabulary. In accordance with the interview findings, this is the third set of resources that focuses on acquainting students with new vocabulary.

Based on the observations, the teacher begins by preparing the materials in front of the class and setting up the chairs for each of the groups in their respective sections. Following that, the teacher divides the students into groups of five and begins preparing the material and media to be used. In this game, the teacher groups the students based on their seat arrangement; there are eight groups altogether. Next, the teacher prepared the media that are pictures of stationery such as a pen, a pencil sharpener, a ruler, an eraser, and a pencil. She prepares five pictures for each group that is given not in the same order. She also prepares a box that contains the same pictures, each of the pictures has sticky tape behind it to stick it into aboard. She divides spaces in the whiteboard for each group and gives each space a group name. The last, she prepares a whistle to conduct the game.

Based on the observational data, the teacher demonstrates what the students should do before the game starts. It is found that almost all the students pay attention to their teacher and her explanation. Even though some of them at the back row talk to each other, but in the process of the game, they can do it well. The game starts when the teacher says "Start!". On the first try, the class was a bit noisy. The

students talk and yell to their friends. The teacher just let them as they are, and the game continues until the last person sticks the picture on the board.

After that, still taken from the data of observation, before the second trial begins, the teacher asks the students in the second row to come forward to be the first player. She explains again the rules and asks the students to keep silent while they are playing. She adds that if they make noises again, they would be eliminated. It seems that the students understand what their teacher command. As a result, in the second game, they are more disciplined. Each of the students listens to the teacher's instruction obediently. Then, on the third try, the students seem to have adapted to the rules and are more disciplined and obedient to the rules and instructions. The three last games finish quicker than the first and the second rounds.

Furthermore, according to the observation have done, the participants are very happy. According to the teacher's interview data, she claims that applying games is extremely beneficial, especially when applied to elementary school students. She also argues that the games are interesting, and that students become more engaged when there are games, because they are not confined to their seats. They pay attention when their teacher says, "Let's do a game!". Some of the students appear to be confused when their teacher explains the rules in English, so she then explains the rules in

Indonesian to make sure they understand. When the teacher divides the students into groups after re-explaining the rules to them, the students appear to be very excited. No one complains when they get their group. It can be concluded that the teacher has excellent control over the students, allowing the game to be successfully completed. However, 4 of the students seem a bit boring in the second round; they are not as enthusiastic as they are in the first round. The teacher is a bit busy conducting the game and does not pay attention to the bored students. However, the game continues.

The second explanation is how the chain message game can support the visual, auditory, and kinesthetic learning styles of the students. This research had the same idea as Fleming and Bourne (2006) who had composed about learning style as one of the most common of the various type of learning styles model. Fleming divides the learning style into four. They are auditory, visual, auditory, and kinesthetic learning styles. Then, in this research, learning style means the natural or habitual way an individual obtains knowledge and comprehends in learning circumstances (Gardner in Saeed et al, 2015).

The first learning style is visual learning (see Table. 1). According to the observation data, the visual learning students in this research can improve students' vocabulary by looking at the picture given. It is in line with what Awla (2014), Saeed et. all (2015), and Adistya et al. (2016) who compose those visual learners learn

through pictures, and they prefer to obtain information through visuals, such as pictures, diagrams, and videos. Students who learn visually will benefit from the first row, according to the teacher's opinion.

Based on the findings of the interview, students who are in the first row of the team are more likely to learn new vocabulary than those who are in the second row. The teacher adds that it is because they see the picture directly that they remember it better than if they just heard the words. Moreover, from the observation data gathered, the students in this row see the picture and tell it to their friend, that is the reason they remember the words longer rather than they hear the words. So that this is a kind of learning in which the ideas, concepts, data, and other information are accompanying with the seeing things that they learn best by using their eyes to see information and instructions and may forget information that has only been heard (Nidhi et al., 2019). The students who use the visual learning style are helped by seeing the picture in this game that they are accommodated when they are in the first row.

The visual learners gain information by looking and viewing what around them. According to Nidhi et al. (2017), visual students like to read and keep attention to the picture the teacher gave rather than listen to others, being accurate in details; notice the appearance; being a good speller; good at remembering what they say rather than what they hear. In this research,

the visual students feel helpful when they are in the first row as they see the picture so that they could learn by their learning style.

Additionally, referring to the interview data, the teacher creates colorful images to arouse the interest of visual students and to enhance their convenience. It is also what Fleming (2019) argues as one of the characteristics of visual students that they like colors and they are good at sign language. Moreover, visual students often use vocabulary such as "to see, to watch, perspective, it seems..., to reveal, seeing from above, to sparkle, be shiny like crystal". It supports what the teacher has done that the students in the first row to see the picture given. Besides, the visual learning style is the most common used by the students. It is in line with Almomani (2019) who finds that there is substantial There are variances in the sorts of learning patterns chosen by his research participants, with the majority preferring the visual pattern, followed by the auditory pattern, and finally the kinesthetic pattern as the least liked.

Additionally, based on observation data, the visual students in this study are classified as visual-external, which corresponds to the findings of Montuori et al. (2018). They divide visual students into two groups, and both are the differences on how they get the information. Visual- external students choose something based on color and appearance.

The second learning style is auditory learning (see Table. 1). This kind of learning style

gains the information easier through verbal explanations (Awla, 2014; Saeed et. All, 2015; Adistya et al., 2016). This game is significantly promoted learning and fostered development. All the students are very enthusiastic about learning by playing the game that they are actively involved in the game. Students must hear the words delivered clearly and in a specific tone to assimilate the information. While students with an auditory learning style are excellent at remembering names, they may forget the associated faces (Gavan in Saeed et. All, 2015). Taken from the teacher's interview data, students who have a strong ability to learn through audio have a tendency to remember new words more easily when they are heard for the first time. That is one of the teacher's reason in choosing this game which can support auditory students. The auditory learning style students are accommodated to learn new vocabulary when they are in the second, third and fourth row in the team. Their job is listening to what their friends say and gaining new information through their ear is their best way so that the information last longer rather than they see the words. The auditory students can have the ability for discovering the true meaning of what someone says by listening to audible that this kind of students manages to recall accurately what has been spoken (Nidhi et al., 2019). The auditory students in this activity are supported and take part when they are in the second to the fifth row that they listen to their friend whispered.

Table 1. Chain Massage Supported VAK Learning Style.

	Visual learner	Auditory learner	Kinesthetic learner
Chain message	First row: saw the picture in front of them and whisper the picture that he/she saw to friend at the back	Second, third, fourth and fifth row: listened to what their friends whispered	Fifth row: run to stick the correct picture in front of the class.

When the teacher blows the whistle and asks the first-row students to see the picture in front of them and whisper the picture that they see to a friend at the back, it helps visual students in learning because they see the picture and store the information into their mind. When the students in the second row tell the students in the third row what picture they hear and continue to the third, fourth, and fifth rows students. The process of whispering from the second row to the fifth row helps auditory students to obtain the material and information because they get the information through their ears.

The last learning style in this research is kinesthetic learning (see Table. 1). In this research, the students in the last row of the group come and stick the picture on the board. It helps the kinesthetics students to learn new vocabularies through the action. Based on Awla (2014), Saeed et al. (2015), and Adistya et al. (2016), kinesthetic students tend to like moving around and work with touchable objects that the kinesthetics students learn by doing (Fleming et al., 2019). It means they like to do or to experience things to absorb the information. The kinesthetic learning students which are learned

best when they are in the last row of the team. Their job is running to the front of the class, choosing the correct picture and stick it on the board. These movements are appropriate to the kinesthetic students that they gain new information with their body movements rather than watching or listening to the teachers and is also commonly known as the doers. In this game, they are accommodated when they are in the last row that they need to run to the front of the class, choose the correct picture, and stick it out.

The students in the final row should make additional movement by rushing to the front of the class, selecting the proper picture, and sticking it to the board. It is in line with Nidhi et al. (2019) also state that kinesthetic students are good at interacting in group activities that involve moving activities. It is one of the characteristics of this style. According to Saeed et. all (2015), this learning style was substantially unlike the auditory and visual learning styles as it used their body movements to retain information as opposed to hearing or seeing the information. It means that the students must physically move or touch objects to retain the movement process (Marriam on Saeed et. al, 2015). If kinesthetic students only heard or saw

the information presented to them, there is a possibility that the information will not be retained and be forgotten from their memory a short time later.

Each seat in the first five rows of this game serves a distinct purpose and has a distinct outcome. The first roll benefits visual learners, the second, third, and fourth rolls benefit auditory learners, and the final roll benefits kinesthetic learners. To summarize, the chain message game benefits students who learn English visually, auditorily, or kinesthetically, particularly when it comes to learning new vocabularies.

2. Advantages of using games to support VAK learning style

The second finding and discussion explains the benefit of applying chain message game in the class. The teaching and learning processes are designed to ensure that students retain the information. Nevertheless, some students continue to have difficulty engaging with the study because they have not yet identified their preferred learning style. Students' learning styles might be critical and necessary for them to be more focused on their studying and better themselves (Asrida, 2019; Ramadian et al., 2019). Because the participants are young learners, the teacher should give more attention and work to support all her students learning styles (Yuliani et al., 2019). For that purpose, a chain message game is chosen to accommodate those young learners learning styles.

From the beginning of the teaching-learning process, the students are enthusiastic when they hear that they will play the game in the class. It seems that game is the word that brings so much joy to them. The game is done after they finish their worksheet. Some advantages can be taken from involving change message games in the teaching-learning process in the classroom.

The first advantage is that playing the game creates an interactive teaching and learning environment in the classroom between the teacher and the students, as well as between the students and their classmates. Based on the data of interview, the teacher claims that there has been an assumption that students in the elementary level are like an empty pot that needs to be filled with knowledge. Because of this assumption, the teaching techniques have become monotonous that the students are accustomed to listening to the explanation only, and the teacher continues to explain the lesson without considering whether the pot has been filled or whether there is a leak somewhere and resulting in the pot never being filled with knowledge. Through the use of a game, this old teaching habit can be transformed into a more active one by promoting communication between students and teachers.

Second, instruction becomes more student-centered. Using chain message games in teaching makes young learners more active and got more knowledge because they experience it directly through playing this game. It is different

with teacher centers that can make the students passive in interaction. In line with the findings of the interview, the teacher argues that incorporating a chain message game into the learning environment can make it more pleasant and enjoyable for the students. The teacher goes on to say that by playing games, students not only learn new materials and vocabulary, but they also have a good time, which increases the value of the teaching-learning process. They should enjoy themselves while they are learning, and they should have the most pleasure with movement and physical engagement. The more enjoyable the students' experience, the more readily they recall the language taught. Involving games in teaching English to young learners is an appropriate step for accommodating young learners learning styles.

Third, using a chain message game at the elementary level is succeeded to engage the students in the teaching-learning process. According to the data of interview that the teacher argues the application of games in the class can lit up the atmosphere and provide a fun learning environment for the students. It can be inferred from the observation data that all students participate in this activity even though there are some of them look bored in the middle of the activity. But in general, playing this game does attract student's attention and they can learn while playing. The students engage with the classroom activities both with their teacher and their friends. Even though the teacher needs much time to organize the preparation, it worth

doing. Another advantage of using chain message games at the elementary level is that this activity provides the chance of gaining new vocabularies for the students. The students learn new vocabularies while having fun and without realizing it, and this is the best way to teach the students new words and materials.

Fourth, the implementation of chain message game enables the students to enhance new vocabulary. It is also revealed in the interviews data that the teacher prepares material that is appropriate for using the game in the classroom before implementing it. Moreover, the teacher mentions that because chain message is a game to improve students' memory, it is also a good game for students to learn new vocabulary. It is in line with Suaib (2017) employing games to promote the visual, auditory, and kinesthetic students learning styles in the classroom can have an impact on students' progress in new terminology. In another words, the chain message game is set as the technique to help students with three distinct learning styles to be able to comprehend new vocabulary. Suaib (2017) finds that there is an effective use of the students' visual, auditory and kinesthetics learning styles in teaching English to improve the student's vocabulary significantly.

In conclusion, visual, auditory, and kinesthetic (VAK) learning style is one way to accommodate the students to learn new English materials. Using games at the elementary level is the appropriate way because they like to use

their senses in understanding the world that the students' comprehension extends through hands, eyes, and ears.

CONCLUSION AND SUGGESTION

Conclusion

In teaching English to the students, a teacher must be able to familiarize them with the target language first. One of the ways to introduce the students to English is by involving games in the teaching-learning process as suggested by many experts. Through playing the games, a teacher attracts the students' attention, creates fun learning, and makes them be able to absorb more information since it accommodates their learning style which is important for learners. Among various types of games, the chain massage game is chosen because it can help the visual, auditory, and kinesthetic learner to gain new vocabularies and materials. In chain massage, the students are using all their senses of perception. This drives the students to understand and learning quickly. This activity accommodates all the students learning styles. By seeing the pictures visually, students learn quickly. The auditory learners learn by hearing the words from their friends, and the kinesthetic learner learns when they stick the pictures to the whiteboard. In conclusion, these kinds of games are suitable for accommodating young learners learning styles and foster them to learn English better.

Additionally, the limitation of this research is the data obtained. It would be preferable if a questionnaire and an interview

were included in the data collection process, particularly with the regard to the students' responses. Additionally, while the research was conducted in a single class, additional research may be undertaken in many classes to obtain more precise data. This is because the goal of this research is to explain chain messages and how to include them into English instruction to fit the learning patterns of young learners (visual, auditory, and kinesthetic) for the students only.

Suggestion

There are some suggestions proposed dealing with the applications of the chain message game in the fourth grade of an elementary school student. First, teachers should explain the rules and the procedure of how to play the game before starting. Second, Teachers are suggested to give some pictures that suitable for the topic of the lesson. Teachers should use pictures that can attract the students' interest. Third, it is better for teachers to varying the instruction on the punishment paper and it must be suitable with the materials. Last, teachers should evaluate every child's work to see whether young learners comprehend the material or not.

REFERENCE

- Astri, Z. (2018). The Use of Total Physical Response Method for Different Learning Styles in English Vocabulary Development. *SELTICS*, 1(1), 25-38. Retrieved from <https://ejournals.umma.ac.id/index.php/seltics/article/view/57>
- Adistya, I., Rismaya, M., & Eusabinus, B. (2016). The Students' Styles and Strategies In Learning Relationship To Their Speaking Skills. *JURNAL PENDIDIKAN DAN PEMBELAJARAN KHATULISTIWA*, Vol 5, No. <https://jurnal.untan.ac.id/index.php/jpdpb/article/view/16196>
- Almomani, J. A. (2019). Preferred Cognitive Learning Patterns (VAK) Among Secondary Students Admitted to King Saud University and its Effect on their Academic Achievement in Physics. *International Education Studies*, 12(6), 108. <https://doi.org/10.5539/ies.v12n6p108>
- Asrida, D. (2019). Investigating Students' Learning Style By Using Vak Model. *Jurnal Bahasa Lingua Scientia*, 11(2), 237-248. <https://doi.org/10.21274/lis.2019.11.2.237-248>
- Awla, H. A. (2014). Learning Styles and Their Relation to Teaching Styles. *International Journal of Language and Linguistics*, 2(3), 241.
- Creswell, J. W., & Creswell, M. J. D. (2018). *Research Design Qualitative, Quantitative, and Mixed Methods App (5th ed.)* (5th ed.). SAGE Publications Ltd.
- Creswell, John W. (2012). *Educational research: planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Pearson Education, Inc.
- Felder, R., & Brent, R. (2005). Understanding Children Differences. *Journal of Engineering Education*, 94(1), 57-72.
- Fleming, N., & Baume, D. (2006). Learning Styles Again: VARKing up the right tree! *Educational Developments, SEDA Ltd*, 7(4), 4-7.
- Fleming, N. D., & Bonwell, C. (2019). *How do I learn best? A learners' guide to improve learning*. Author.
- Linwood, A. S. (2004). *Games Kids Play*. <http://www.healthofchildren.com/P/Play.html>
- Montuori, S., Curcio, G., Sorrentino, P., Belloni, L., Sorrentino, G., Foti, F., & Mandolesi, L. (2018). Functional Role of Internal and External Visual Imagery: Preliminary Evidences from Pilates. *Neural Plasticity*, 2018, 1-8. <https://doi.org/https://doi.org/10.1155/2018/7235872>
- Nidhi, S. K., & Tay, C. H. (2017). Styles of Learning Based on the Research of Fernald, Keller, Orton, Gillingham, Stillman, Montessori and Neil D Fleming. *International Journal For Innovative Research In Multidisciplinary*, 3(4), 17-21.
- Ramadian, O. D., Cahyono, B. Y., & Suryati, N. (2019). The Implementation of Visual, Auditory, Kinesthetic (VAK) Learning Model in Improving Students' Achievement in Writing Descriptive Texts. *English Language Teaching Educational Journal*, 2(3), 142. <https://doi.org/10.12928/eltej.v2i3.946>
- Saeed, M. O., Ondracek, J., Bertsch, A., Shefstad, B., Procyshen, M., & Hernandez, M. (2015). An Investigation of Learning Style Theory and GPA at a U.S. University.

- Inspira- Journal of Modern Management & Entrepreneurship* 1, 5(3), 01–14. <https://doi.org/10.30863/didaktika.v11i2.169>
- Santrok, J. W. (1994). *Child Development*. Brown & Benchmark Publishers.
- SUAIB, R. W. (2017). the Use of Visual Auditory Kinesthetic (Vak) Learning Styles To Increase Students' Vocabulary. *Didaktika*, 11(2), 239.
- Yuliani, N. D., & Najmiah, L. (2019). Students' Learning Strategies Based on Their VAK Learning Style. *Intensive Journal*, 2(1), 41–50.