

# The Effect of Gender on Student Learning Style in Class IV, SD N Mangkuyudan

Dewi Astuti<sup>1</sup>, Sarwanto<sup>2</sup>, dan Chumdari<sup>3</sup>

Postgraduate of Primary School Teacher Education, The Faculty of Education,  
Universitas Sebelas Maret, Surakarta, 57126, Indonesia

dewi.astuti.pgdsunskbm@student.uns.ac.id, sarwanto@fkip.uns.ac.id, chumdari.pgsd.uns@gmail.com

**Abstract:** This study aims to determine the effect of gender on student learning styles in SD N Mangkuyudan, Laweyan, Surakarta, Indonesia. This research is quantitative research with a descriptive approach. The sample in this study were fourth-grade students, amounting to 29 (17 male students and 12 female students) with sampling techniques through purposive sampling. Data is obtained through filling learning style instruments. The instrument in this study is a questionnaire. The data collected is then analyzed using the chi-square test formula. The results of this study indicate that there is no gender influence on student learning styles. Based on the results of the chi-square test using the SPSS 21 for windows program showed no effect of gender on the learning styles of students with significance values, namely the visual style ( $p: 0.409 > 0.05$ ), auditory ( $p: 0.237 > 0.05$ ), and kinesthetic ( $p: 0.078 > 0.05$ ).

**Keywords:** *gender, visual, auditory, kinesthetic*

## INTRODUCTION

Education is the main requirement in ensuring human survival and is used as a benchmark for the development of the nation and state, because education can change and develop reliable, quality, and adequate Human Resources, both quantitatively and qualitatively. Learning is a series of activities of the body of the soul to obtain a change in behavior as a result of individual experience in interaction with the environment that involves cognitive, affective, and psychomotor aspects (Djamarah, 2011).

Each student gives a different reaction with different learning methods from each other (Arslan et al., 2009). This difference can be seen from the level of performance, speed of work, and also the learning style between female students and men. Learning styles is the key to students' success in learning. In the learning process, each student has a learning style that varies between students with one another. The biological and psychological conditions of each student also influence the learning style of each student. Teachers in teaching must pay attention to student learning styles. Each student has their method and can set strategies for learning. Identifying student learning styles is one of the important time frames in the learning process. Through such a process, the learning methods and techniques chosen, the arrangements regarding learning tools are arranged to meet the needs in the success of the learning process (Seyihoglu, 2010).

Learning styles show how students learn, like to learn and facilitate that instructors can successfully teach and adapt to each student. Each learning style involves different features of behavior that can be collected and analyzed from student learning behavior (Chang et al., 2009). Learning styles can be used to find out how individuals think and learn together with influential elements so that the learning process can be more effective (Caliskan et al., 2012). The learning styles of each student can be observed from the multiple intelligences they have and the respective guts that are dominant. Each student may have a single style or can have several combinations of different learning styles.

Learning styles are ways that people tend to choose to receive information from the environment and process information (Susilo, 2006). Learning style is a method used by an individual in collecting, organizing, and modifying data while converting data into meaningful information (Bayrak, 2012). According to Cesur & Fer (2009), learning styles are methods used to get used to getting, processing, and storing new information and skills. Learning styles is individual approaches to the learning process and general attitudes.

Learning style is the way individuals interact with information, begin to concentrate on processes and maintain new information (Yee et al., 2015). According to Rassool & Rawaf (2007), learning styles explain a person's behavior in learning assignments. Learning styles are individual strategies used in dealing with the environment and learning materials, thus learning styles are related to the tendency of students to think and convey with others, the classroom environment, and learning activities (Rogers, 2009). Learning styles not only accentuate elements of cognitive processing thinking styles, but also observe and organize information (Yee et al., 2015). Determining individual learning styles and managing their learning media will undoubtedly increase the success of the learning process (Dunn & Dunn, 2002).

Determination of learning styles is the most important thing in determining suitable learning methods and to prepare appropriate learning media for students (Çalışkan et al., 2012). Besides, students who are aware of their learning styles will be more successful. According to DePorter (2011), explaining learning styles are divided into three types, namely visual, auditory, and kinesthetic. Visual learning style is a learning style by seeing, observing, looking at, and the like. An auditory learning style is a way of learning one's child by listening. Kinesthetic learning styles, students learn through physical movements as a means of entering information into their brains.

Some research results show that between male and female students no differences were found related to overall academic ability Numanoglu and Sen (2007) could not find a significant difference between learning styles and student gender. Besides, Gürsoy (2008) revealed that there was no difference between learning styles and gender. Cavas (2010) found that there was no difference between learning styles and the sex of each student.

Learning styles possessed by students have no good and bad learning styles, the most important thing is to organize learning activities that are by student learning styles (Çalışkan et al., 2012). If each individual's learning style is determined, it can be better estimated how students can learn and what types of activities should be applied. Thus, the teacher can prepare the media that is suitable especially for themselves and also for their students (Sun, 2008).

Based on observations in class IV SD N Mangkuyudan differences were found between male and female students when the learning process took place. Some students like to take notes when the teacher delivers the material. Some prefer to listen and listen to what the teacher says and there some students are only interested in practicum activities.

Teacher's lack of understanding of each student's learning style results in adverse effects effectiveness in learning depends on the characteristics of each student's learning. Therefore, the teacher must know and recognize the learning style of each student so that it can facilitate the learning process. Research conducted by Buali et al., (2013) resulted in a significant difference in the learning style between male and female students. Besides, Yazici (2005) found that learning styles are influenced by learning experience, gender, and the field of study that interests him.

Determination of learning styles is very important to determine the dimensions of learning methods that are suitable for students through the use of their respective characteristics and to prepare learning media that is right for them. Besides, students who are aware of their learning

styles will be more successful in learning and will have a better attitude. As a preferred method, the teacher will often use and feel easy when learning with a learning style that is by the conditions of the students.

## **METHOD**

The method used in this study is a survey. This study uses a quantitative approach. The survey method is used to obtain data from a particular place, but the researcher treats it in collecting data by distributing questionnaires, tests, interviews, and so on (Sugiyono, 2016). The purpose of this study was to determine the effect of independent variables (gender) on the dependent variable (learning style). This research uses descriptive design. The researcher does not provide treatment, manipulation, or alteration to the independent variables, but describes a condition as it is (Sukmadinata, 2017). The subjects of this study were all fourth-grade students of SD N Mangkuyudan in the odd semester of the academic year 2019/2020, with a sample of 29 students, consisting of 12 female students and 17 male students. The instrument used in this study was in the form of a questionnaire/questionnaire to be filled in by the subject of the study. The questionnaires/questionnaires contain many written questions that are used to obtain information from research subjects regarding some characteristics of their learning styles. The questionnaire of learning style used in this study was a learning style questionnaire that was measured using a modified Likert scale. The type of scale used is (1 to 4) with 12 items of visual factors, 13 items of auditory factors, and 10 items of kinesthetic factors. The total learning style questionnaire is 35 items. In terms of how to answer the questionnaire/questionnaire used is included in the closed questionnaire because the subject of the research has provided the answer so that the respondents just choose. The form of the questionnaire is a checklist, a list, where the respondent just needs to put a check (√) on the appropriate column (Arikunto, 2013). The collected data will be analyzed to determine the trend of learning styles of male and female students conducted using the chi-square test.

## **RESULTS AND DISCUSSION**

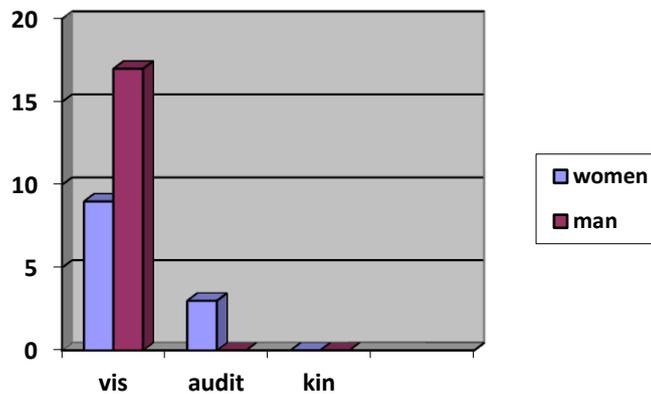
The results of back style research data analysis were obtained from questionnaires or questionnaires filled by 29 fourth-grade students of SD N Mangkuyudan Academic Year 2019/2020 as a whole after a comparison between visual, auditory, and kinesthetic scores showed a tendency of 26 students' visual learning styles, auditory 3 students, and kinesthetic 0 students. Overall the tendency of learning styles of fourth-grade students at SD N Mangkuyudan is a visual learning style that is with the number of 26 students or 89, 65%.

Based on the results of the chi-square test using SPSS 21 for windows, the significance value obtained is in the visual style ( $p: 0.409 > 0.05$ ), auditory ( $p: 0.237 > 0.05$ ), and kinesthetic ( $p: 0.078 > 0.05$ ). That is, there is no effect of gender on student learning styles in SD N Mangkuyudan. The results of the study data analysis of the learning styles of fourth-grade students at SD N Mangkuyudan stated that the learning styles of male and female students were visual. Teachers provide more visual stimulation than auditory and kinesthetic.

The chi-square test results showed no gender influence on student learning styles in SD N Mangkuyudan. One of the causes of the absence of differences between men and women is the learning process applied in the SD N Mangkuyudan environment, namely lectures, assignments, and students only see and record important points of learning material. Ormrod (2008) states that from several studies in general, men have more ability to do visual-spatial tasks than women.

Conversely, women seem to be more capable of some verbal skills, but not all, for example, girls have more vocabulary on average and can identify the words they need to express their thoughts more quickly. There are no gender differences in visual-spatial, verbal performance, but some researchers also find that these differences are getting smaller in recent years.

If illustrated by the graph, the frequency of students who tend towards visual, auditory, and kinesthetic learning styles is shown in Figure 1.



**Figure 1.** Frequency of Trend of Student Learning Style

The tendency of learning styles of male students in grade IV with a visual style frequency of 100%, auditory style of 0%, and kinesthetic style of 0%. However, from the three styles, it was seen that all male students in SD N Mangkuyudan had a higher visual learning type than the auditory and kinesthetic types. Students tend to learn by looking directly, for example like pictures, like writing, difficulty in receiving verbal instructions, and not disturbed by noise.

The tendency of learning styles of 4th-grade elementary school students at SD N Mangkuyudan is known to be a visual learning style of 75%, an auditory style of 25%, and a kinesthetic style of 0%. However, from the three styles, the frequency of students who tend to use visual styles is more than students who use auditory and kinesthetic styles, so it can be concluded that the fourth-grade female students of SD N Mangkuyudan mostly tend to learn with a visual style of 75%.

This is consistent with the opinion of DePorter (2011) that the visual learning style prefers learning by seeing, such as: liking pictures, like writing, difficulty in receiving verbal instructions, and not being disturbed by noise. Students with a visual learning style will tend to more easily remember things based on their vision, better understand a command if they read the command, can even enjoy reading despite being in the middle of a fuss. Students can understand the lesson by reading repeatedly and students are less able to remember what has been read. Students like to answer briefly, talk rather quickly, often drawing something related to vision. Rose & Nicholl (2006) that the characteristics of visual learning styles are like reading (liking/enjoying reading), watching television, watching movies, guessing puzzles, filling in TTS, preferring to read rather than read.

The kinesthetic learning style of male and female students is higher in the percentage of male students, although it is more likely that the visual type is high between male and female students. All students have three types of learning styles but are more likely to learn the biggest percentage. Boys have a greater tendency for motor abilities such as jumping and throwing (Olivia, 2009). Characteristics of male students based on the most prominent kinesthetic

learning style questionnaire/questionnaire that is physically oriented and lots of movement, unable to sit still for a long time, less neat, and weak in verbal activities.

Based on the results of the study, fourth-grade students showed a learning style that is often done in class is visual. The subject of learning is not just reading, but writing (making notes on the subject matter) while concentrating more by looking at the notes in the book and looking at the pictures. Learning styles that emerge are the habits of students. Some participants can learn to read or listen to the teacher's explanation. Even when reading, the characteristics of students are different. Some can fold their hands when reading, leaning their heads against the wall when reading and some students fall asleep when their friends read. The results of this study are by the statement of Keefe et al., (1987) that learning styles relate to the way children learn and how to learn that they like.

Grade IV students show a blend of learning styles with different learning styles tendencies. Some students show more characteristics of visual learning styles, but some tend to show the character of auditory and kinesthetic learning styles. This result is in DePorter's opinion (2011), that students have all three learning styles, only usually tend to one particular learning style.

The tendency of the learning style characteristics of class IV B students uses several characteristics of each learning style, namely: (1) visual: (a) learning through the process of reading and writing; (b) learning through seeing, for example, pictures, diagrams, or maps; (c) creative activity, (2) auditory: (a) learning by listening; b) good in oral activities; (c) like to talk and discuss (3) kinesthetic: (a) learning with physical activity; (b) sensitive to body language; (c) motion-oriented; (d) weak in verbal activity. The results of this study are consistent with the statement of Rose & Nicholl (2006) which states that successful learners always learn actively, ask themselves, and do various learning activities that are by their sensory choices. Every student must pay attention to the three characteristics of visual, auditory, and kinesthetic learning styles.

## **CONCLUSIONS**

Based on the results of the study it can be concluded that the tendency of the learning styles of male students in class IV with a frequency of visual style by 100%, auditory style by 0%, and kinesthetic style by 0%. The tendency of the learning styles of female students in class IV SD N Mangkuyudan is known to have a visual learning style of 75%, an auditory style of 25%, and a kinesthetic style of 0%. The visual learning style of male students is higher than that of female students, the tendency of auditory and kinesthetic learning styles of male students is higher than that of female students. Based on these results it can be concluded that the tendency of students' learning styles in class IV SD N Mangkuyudan is visual. In the Chi-Square test the significance values were obtained in the visual style ( $p: 0.409 > 0.05$ ), auditory ( $p: 0.237 > 0.05$ ), and kinesthetic ( $p: 0.078 > 0.05$ ). This shows that there is no influence of gender on student learning styles.

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