Correlation of Students’ Listening Comprehension Score With Students’ Learning Styles at Students of English Department at University of Muhammadiyah Gresik

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ABSTRACT
Listening ability is an important component of language teaching and learning as it tends to improve faster than speaking ability and frequently influences skill development when learning anything new. Meanwhile, in order to accomplish excellent academic outcomes, students need to consider their learning styles and teachers need to consider various students’ learning style. This study aims to investigate the correlation between the listening abilities of learners and their learning styles. The participants were students of English education study program, faculty of teaching and educational sciences, Muhammadiyah University of Gresik, with 48 males and 52 female students participating. This study employed quantitative approaches using a questionnaire to assess students' learning styles, a test to assess students' listening comprehension scores, and an interview as a few sample about students’ perception. The data analyzed used SPSS Pearson's Correlation Coefficients and thematic analysis. The level of probability (p-value) significance (sig.2-tailed) resulted in .003. Since, the p-value (.003) was less than .05, Hα (alternative hypothesis) was accepted and H0 (null hypothesis) was rejected. As a result of the acceptance of the Hα (alternative hypothesis), researchers discovered there is a significant correlation connecting both visual and auditory learning styles and listening comprehension. The impact of this study to help students aware with their learning styles and teachers need to consider efficient learning activities with students’ various learning style.

KEYWORDS
Listening comprehension; Visual learning style; Auditory learning style

ABSTRAK
Kemampuan mendengarkan adalah komponen penting dalam mengajar dan belajar bahasa karena kemampuan ini cenderung meningkat lebih cepat daripada kemampuan berbicara dan sering kali mempengaruhi perkembangan keterampilan ketika mempelajari sesuatu yang baru. Sementara itu, untuk mencapai
hasil akademis yang sangat baik, siswa perlu mempertimbangkan gaya belajar mereka dan guru perlu mempertimbangkan berbagai gaya belajar siswa. Penelitian ini bertujuan untuk menyelidiki korelasi antara kemampuan mendengarkan siswa dan gaya belajar mereka. Para peserta adalah mahasiswa program studi pendidikan bahasa Inggris, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Muhammadiyah Gresik, dengan 48 mahasiswa laki-laki dan 52 mahasiswa perempuan yang berpartisipasi. Penelitian ini menggunakan pendekatan kuantitatif dengan menggunakan kuesioner untuk menilai gaya belajar siswa, tes untuk menilai skor pemahaman mendengarkan siswa, dan wawancara sebagai sampel tentang persepsi siswa. Data yang dianalisis menggunakan Koefisien Korelasi SPSS Pearson dan analisis tematik. Tingkat probabilitas (p-value) signifikansi (sig.2-tailed) menghasilkan .003. Karena nilai p-value (0,003) lebih kecil dari 0,05, maka Ha (hipotesis alternatif) diterima dan Ho (hipotesis nol) ditolak. Sebagai hasil dari penerimaan Ha (hipotesis alternatif), para peneliti menemukan adanya korelasi yang signifikan antara gaya belajar visual dan auditori dengan pemahaman mendengarkan. Dampak dari penelitian ini untuk membantu siswa menyadari gaya belajar mereka dan guru perlu mempertimbangkan kegiatan pembelajaran yang efisien dengan berbagai gaya belajar siswa.

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INTRODUCTION

Learning English requires the acquisition of four skills, such as listening, reading, speaking, and writing. Learners must listen regularly in order to completely grasp the language. As a result, listening is essential in language teaching and learning. Acquiring listening skills is difficult for learners since comprehending is the main objective of listening for English students. Listening abilities spread oftentimes than speaking ability as it frequently influences the development of skills to learn new knowledge. Listening tends to be determined by the term "receptive skill" in which individuals obtain ideas based on what they hear (Harmer, 2003). Listening is therefore a challenging skill to acquire due to the fact that it requires listeners to figure out meaning from provided material by relying on their prior understanding of society and the foreign language, storing details in deep memory, and creating their own interpretations from verbal sentences. Certain learners struggle with improving their listening skills because they have to devote careful attention as well as remain
focused, while other students frequently fall asleep (Bingol, M., et al, 2014). Students also need quiet surroundings since it is more difficult to concentrate on listening to English when they're surrounded by a lot of disruption.

The ability to listen have not received priority in language teaching and learning in the last decade across the educational world. Many teachers continue to believe that listening skills are passive. Listening is an important part of communication, accounting for 40 to 50% of total communication time (Gilman, Robert & Moody, Reno, 1984). (Gilakjani, Abbas & Ahmadi, Mohammad, 2011) believe that non-listening activities support stimulate current understanding along with providing beneficial background. Activities conducted during listening enable learners to focus on important elements while creating alongside validating assumptions, while following activities support enhance listening and developing understanding and discussion.

However, learners struggle to improve their listening abilities. In this circumstance, the author considers listening challenges as part of a bigger issue that inspires the author to examine this occurrence. among the most significant objectives in foreign language acquisition, as defined by (Gilakjani, 2012), was to raise knowledge concerning differences among learners and the possible impact they have on their education and, finally, as a result, on the outcomes of learning. In other words, diversity among students may have a variety of effects in the classroom. (Ellis, 1986) additionally, indicates that personality, learning style, motivation, skill, and age all have an impact on language learning. Learning style is one of these factors.

Learning style was defined by (Wang, 2007) as a student's usual and favorite technique of recalling, analyzing, and obtaining information and abilities that are new. As a result, instead of focusing on how learners acquire knowledge, learning styles focus with the ways people choose to learn. Furthermore, everyone has a unique learning style that influences their ability to analyze and absorb information. There are several important advantages of learning styles, one of the fact that learning styles help to make teachers easier to implement appropriate way of learning into the curriculum. Students in particular like to study through images or demonstrations (visual), whereas other students enjoy to listen to audio and understand more in listening (auditory), while some students enjoy performing tasks directly (kinesthetic) (Barbe, W & Milone Jr, M, 1981).

The visual learners understand with the help of illustrations and acquire knowledge better than images. For better understanding, they are dependent on indirect indications including gestures from the teacher or instructor. Students who are visual learners may enjoy to be seated toward the front of the classroom. They additionally write detailed notes on the information that is provided. Auditory learners acquire knowledge by listening to and evaluating information through tempo, intensity, and tone. These students gain knowledge through speaking loudly during lessons and are unlikely to fully comprehend written material. Students with kinetic learning are students who understand better from a participatory, "hands-on" approach. These students feel excitement when communicating with the people around
them. Kinesthetic students usually have difficulty on goal achievement and are easily sidetracked.

According to the previous study, learning styles influence students' learning behavior. Learning style influences academic achievement along with listening comprehension skills in students (Saadi, 2012). A research (Gilakjani, Abbas & Ahmadi, Sayedeh, 2011) that evaluated the learning methods of Iranian EFL college students supports the topic well. The purpose of the experiment was aimed at improving lecturers' knowledge and understanding between the influence of learning styles on the teaching process. These data reveal how visual learning styles are preferred by Iranian EFL university students, and students that rely on this specific kind of learning style outperform their peers in their college majors. In addition, (Maghfirah, 2018) performed a research on 8th graders from SMPN 4 Pallangga Gowa to examine students' comprehension of listening and reading in relation to their learning style. This study found no significant differences in students' learning styles when it came to students listening comprehension and reading comprehension. It illustrates the fact that learners' comprehension of text and audio scores did not change substantially depending on either auditory and visual learning styles. (Rizky, 2013) did a causal comparison research at Harapan Ibu Islamic Middle School's second grade to find out if there were any significant differences in the English proficiency of learner's success based on kinesthetic, auditory, and visual learning styles. The findings show that learners English ability varied significantly. Unfortunately, in previous studies, the researchers took the data on middle school and high school students, while other research conducted on university students focused only on students learning styles. Based on the gap, this research aims to deeply focus on examine the correlation between students’ listening comprehension score and learning styles especially auditory and visual.

As a result, listening comprehension can be viewed as a student's achievement with English mastery (Byrnes, 1984). Learning style is one factor that influences language acquisition. Learning style is related to listening achievement because students' preferred learning style influences their understanding. They are comfortable obtaining, demanding, breaking down, and processing knowledge in their own unique manner. These elements combine to make learning styles related to listening comprehension. They typically have a dominant or favored learning style, despite the fact that their style is a combination of some learning types. Therefore, it is necessary to analyze auditory and visual learning styles. Teachers must be aware of students' variances in learning style characteristics since understanding students' preferred learning styles is useful in helping teachers get to know their students better. Many teachers continue to pay little attention to their students' learning styles. Aside from that, many students ignore their learning style, even though knowing this learning style can help them learn languages more easily. In learning activities, teachers play a crucial role. Despite students' indifference to their learning styles, teachers must pay attention to them from the beginning to apply appropriate learning activities for all students.
Based on student listening challenges and learning styles, particularly auditory and visual, it is assumed that students’ academic achievement is influenced. As a result, recent study concentrates only on the two most frequently used learning styles in language teaching and learning: visual and auditory. In other words, the objectives from this research is aimed at finding out if there are changes in students’ listening comprehension scores based on their preferred ways of learning. The study’s framed question is as described below: Is there a correlation between students’ listening comprehension and their learning styles (visual and auditory)?

**METHODS**

A correlative study was employed in this particular study. According to (Creswell, 2012), correlations is a measure of statistical significance used to identify the pattern of two variables. Causal comparisons are frequently referred to as ex-post facto, and this derives concerning the Latin phrase meaning "after the fact," since either the consequences and the putative causes have taken place already and can only be analyzed in retrospect (Donald, A., et al, 2010). Afterwards (Mueller, 1992) explained the fact that a causal-comparative research is a comparison of predictor and qualification variable values. Predictors are unable to be adjusted in research that compares causality.

The participants were students enrolled in semesters 7, 5, and 3 of the English education study program, faculty of teaching and educational sciences, Muhammadiyah University of Gresik, with 48 males and 52 female students participating. The data was obtained from students who had auditory and visual learning styles; 46 auditory learners and 46 visual learners were identified among the 100 learners who submitted the questionnaire. A posttest-only approach was adopted in this study, which involved a pair of learning styles: auditory as well as visual. Furthermore, the variables in this research are learning style and listening comprehension.

In addition, a pair of study instruments are employed in data collection: a learning style questionnaire and a listening comprehension assessments. This questionnaire originated by Reid (Gilakjani, 2012)which has a total of 15 questions, 5 associated with each category of learning style. Learners answer questions using a Likert scale with five points. The following responses on the Likert scale were provided to learners: Strongly Disagree (1), Disagree (2), Unsure (3), Agree (4), and Strongly Agree (5). Following that, the listening comprehension assessment consists of 50 questions with multiple answers, followed by five possible answers, A, B, C, D, and E. The listening portion of the assessment is made up of various brief talks from www.esl-lab.com. Barrett’s taxonomies of understanding were used to design the comprehension listening assessment.

The author determines the learning style classification from the questionnaire to analyze the data. The author then only chose learners that possessed the primary learning types of auditory and visual. The author then examines the listening comprehension results, focusing
on learners with both auditory and visual learning styles; the kinesthetic, insignificant, or inadequate learning styles do not qualify in this situation. The author afterwards gathered a list of learners with auditory and visual learning styles, as well as their listening comprehension test results. Statistical examination of study subjects is commonly accomplished by a sequence or string of analyze utilizing conventional correlation tests, which provide a value known as "r." In a procedure named the Pearson's Correlation Coefficients, the value of the coefficient "r" is displayed as a number in decimal form. The researcher used thematic analysis for the interview, the researcher asked some students with different learning style then analyzed the result. The researcher picked each 5 students from auditory learners and visual learners with highest score in their listening comprehension test.

FINDINGS AND DISCUSSIONS

This research aimed to investigate the correlation between the listening abilities of learners and their learning styles. In order to address this issue, the author evaluated the data collected from college students enrolled in semesters 7, 5, and 3 of the English education study program, faculty of teaching and educational sciences, Muhammadiyah University of Gresik. The data was obtained from students who had auditory and visual learning styles; 46 auditory learners and 46 visual learners were identified among the 100 learners who submitted the questionnaire. This indicates that eight kinesthetic learners have been eliminated since the researcher only focus on auditory and visual. Afterwards, in order to find significant correlations between listening comprehension score among learners according to their learning styles, learners who have auditory and visual learning styles were examined with statistical bivariate correlation computations.

Defining students’ listening comprehension score

The author had a hypothesis about the listening comprehension scores of auditory learners and visual learners. To test this hypothesis, the author gave a 50-question assessment to each student, with multiple-choice answers (A, B, C, D, or E). The assessment included brief talks from www.esl-lab.com, and the comprehension listening assessment was designed using Barrett's taxonomies of understanding.

Table 1: Students' Listening Comprehension Score Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSAUDITORY</td>
<td>46</td>
<td>81.8478</td>
<td>7.02050</td>
</tr>
<tr>
<td>LSVISUAL</td>
<td>46</td>
<td>83.4783</td>
<td>6.73874</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>46</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1 clearly shows that students with visual learning style (LSVISUAL) have a higher mean for listening comprehension with a mean score of 83.47 rather than students with
auditory learning style (LSAUDITORY) with a mean score 81.84 and the standard deviation of each learning style are 7.02 for auditory learning style and 6.73 for visual learning style, it means students score of visual learners better than auditory learners, yet both learning style have sufficient score.

Defining correlation of auditory and visual learning styles with listening comprehension performance in students

The author utilized the SPSS software to compute the collected data. To ensure that there were significant correlations in the data, the acceptable level of significance was set at .01 or .05. If the range of values exceeds .01 to .05, it implies that there is no significant correlation (Mueller, 1992). In simpler terms, if the significance level found is less than .05, the null hypothesis (Ho) which suggests no significant correlation between variables is rejected, and the alternative hypothesis (Ha) which proposes a significant correlation between variables is accepted.

Table 2: Correlation of Auditory and Visual Learning Styles with Listening Comprehension Performance in Students

<table>
<thead>
<tr>
<th>Correlations</th>
<th>LSAUDITORY</th>
<th>LSVISUAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSAUDITORY</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>46</td>
</tr>
<tr>
<td>LSVISUAL</td>
<td>Pearson Correlation</td>
<td>.425**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>46</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

Table 2 displays the findings from the calculation of the correlation involving auditory and visual learning styles and students' listening comprehension. The following table indicates how to address the research question by examining the outcomes of the questionnaire along with the listening comprehension scores. According the coefficient of the Pearson product moment of correlation factor, author found a significant correlation involving visual and auditory learning styles along with listening comprehension scores. The acceptable level of significance (sig.2-tailed) for probability (p-value) was .003. That is, the p-value (.003) was less than .05. As a result of the acceptance of the Ha (alternative hypothesis), researchers discovered a significant correlation between the visual and auditory learning styles and listening comprehension score.

This finding contradicts or rejects previous theory and research which states that learning style does not affect learning achievement (Maghfirah, 2018). Another research conduct by, (Afriani, 2016) discovered no significant relationship regarding students' listening skills and
their learning styles in her study. By the opposite end of the spectrum, the findings of this study contradict earlier studies. As a result, in this study appeared to be significant correlation among students' learning styles and their levels of listening comprehension since the p-value (.003) and less than .05.

**Defining the results of interview with visual learners**

Individuals with a visual learning style tend to excel in organizing information and communicating with others. They do so by making use of diagrams, photos, colors, films, and maps. They face no difficulties in visualizing plans, goals, and outcomes in their minds (Putri, A & Ayu, M, 2023). To fully grasp the lesson's material, students with a visual learning style need to observe the teacher's facial expressions and body language. They prefer to sit close to the front of the class. It is likely that visual learners learn best through visual displays and think in images. They frequently take detailed notes during lectures or class discussions to help retain information.

Table 3: Results of Interviews with Visual Learning Style Students

<table>
<thead>
<tr>
<th>QUESTIONS</th>
<th>STUDENT 1</th>
<th>STUDENT 2</th>
<th>STUDENT 3</th>
<th>STUDENT 4</th>
<th>STUDENT 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does owning extensive vocabulary assist you in improving your listening comprehension?</td>
<td>Yes, it helps easily understand what the speaker is talking about</td>
<td>Yes, having a lot of vocabulary is important in every aspect not only in listening</td>
<td>Yes, it helps respondent understand more about the message</td>
<td>Yes, it helps to conclude faster what the speakers try to convey</td>
<td>Yes, having a lot of vocabulary can improve listening skills</td>
</tr>
<tr>
<td>Do you find it difficult for you to retain information when someone speaks quickly?</td>
<td>Yes, when someone speaks quickly, respondent feels confused about what the speaker talking about</td>
<td>No, it does not matter if the speakers speak quickly as long as the respondent can catch the important point</td>
<td>Yes, sometimes respondent misinterpret the speakers</td>
<td>Yes, it is difficult to listen while translating to the native language when the speakers speak quickly</td>
<td>Yes, if the speakers too quickly deliver the message it is difficult to write the message</td>
</tr>
<tr>
<td>What accent do you prefer?</td>
<td>The respondent prefers American accent because the accent is easier to listen</td>
<td>The respondent prefers American and British accents because the respondent already</td>
<td>The respondent prefers American accent because it is easier to pronounce</td>
<td>The respondent prefers, American or British accents because those are common accents in the world</td>
<td>The respondent prefers, American accent because it is easy to use</td>
</tr>
</tbody>
</table>
familiar with the accents

<table>
<thead>
<tr>
<th>What is the most challenging aspect of listening comprehension for you?</th>
<th>Pronunciations and intonation</th>
<th>Pronunciations and when the speaker speaks too quickly</th>
<th>Translate the message to native language and pronunciations</th>
<th>The surrounding environment is very noisy and the speaker speaks too quickly</th>
</tr>
</thead>
<tbody>
<tr>
<td>What can you do to improve your listening comprehension?</td>
<td>Use the song and watch the lyrics</td>
<td>Play games and listen to music</td>
<td>Watch a movie</td>
<td>Listen to a song and watch movies</td>
</tr>
</tbody>
</table>

According to Table 3, students with a visual learning style and a rich vocabulary tend to have better listening skills. Most of the students expressed a preference for the American accent over the British one, as it is easier for them to understand and use. However, visual learners face certain challenges, such as difficulty in retaining information when the speaker speaks too fast and the inability to catch correct pronunciation. Language barriers and noisy environments can also add to their difficulties. To improve their listening comprehension, teachers can use music, fun games, and short movies to engage the students’ attention.

**Defining the results of interview with auditory learners**

Students who learn best through auditory means tend to enjoy listening to music and other sounds. They often have a talent for singing, playing an instrument, and recognizing various instrument sounds. They also have a keen sense of pitch and rhythm (Naning, Z & Hayati, R, 2011). Auditory learners benefit greatly from presentations, group discussions, and conversations where they can listen to others speak. They use voice tone, pitch, speed, and other details to understand the underlying meanings of speech. Information that is written down might not be as effective for these learners as listening to it being spoken. Reading texts aloud and recording them can be a helpful tool for auditory learners.

**Table 4: Results of Interviews with Auditory Learning Style Students**

<table>
<thead>
<tr>
<th>QUESTIONS</th>
<th>STUDENT 1</th>
<th>STUDENT 2</th>
<th>STUDENT 3</th>
<th>STUDENT 4</th>
<th>STUDENT 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does owning extensive vocabulary assist you in improving your listening comprehension?</td>
<td>Yes, having an extensive vocabulary can help enhance listening abilities</td>
<td>Yes, it helps comprehension of the message</td>
<td>Yes, it facilitates understanding of what the speaker is saying</td>
<td>Yes, having a large vocabulary is beneficial in listening comprehension</td>
<td>Yes, it speeds up the end of what the speakers are attempting to convey.</td>
</tr>
</tbody>
</table>
According to Table 4, the researcher has concluded that students with an auditory learning style can significantly improve their listening ability by owning an extensive vocabulary. Around 80% of these students have also stated that they prefer the American accent over the British accent, as they are more accustomed to using the former in daily life or the classroom. Although auditory learning students do not face any difficulties in understanding fast speech, they do struggle with noisy environments or speakers who mumble. Additionally, accents can also be a challenge for them. These students often use movies, music, games, and language-learning applications such as Duolingo to improve their listening comprehension skills.

The researcher concludes from tables 3 and 4 that all respondents agree that having a large vocabulary helps students improve their listening comprehension. When respondents have a large vocabulary, they find it easier to listen. Almost 80% of respondents with visual learning styles agree that if the speakers deliver the messages too quickly, it will be difficult for them
to comprehend the message, whereas 20% of respondents with visual learning styles and 100% of respondents with auditory learning styles have no difficulties. Based on the data obtained, more than 90 percent of those who participated having auditory and visual learning styles prefer an American or British accent. Learners with visual learning styles report issues with pronunciation and speakers speaking too quickly in their listening, but learners with auditory learning styles concur that the environment is too noisy. Games, music, and movies are the most common types of media that may be used to increase learners' listening comprehension, whether they have a visual or auditory learning style.

However, this suggests that learners, regardless of their learning style, possess an equal possibility to score well in listening comprehension. Furthermore, age and gender might have an impact on listening comprehension. This implies that teachers or lecturers must come up with efficient methods of instruction to help learners understand what they are listening. Listening to English music, news, movies, and debates are some ways that can be applied.

CONCLUSION

Listening is a difficult thing among students, especially in English subjects (Rini, 2017). Since learners with an auditory learning style are considered to impact their listening comprehension, it is believed that a student's learning style was a component that impacts listening comprehension. Following it all, auditory learners comprehend new material more effectively if they listen to the material rather than reading it. The purpose of this study is to investigate at the correlation involving styles of learning as well as listening comprehension results. The research method was correlative research. According to the findings of the study, H0 has been declined but Ha has been approved. This indicates there is certainly a significant correlation involving students' listening comprehension and their learning styles.

For future research particular components (cognitive competency, motivation, physical issues) must be explored in relation to learners' experiences and their influence on their listening comprehension. Considering the fact that English being a foreign language in the country of Indonesia, lecturers must inspire and provide efficient ways that allow learners to perform listening, such as encouraging learners to listen to material in the English language as frequently as possible in order to expand their understanding. Listening to English music, news, movies, and debates are some ways that can be applied.

Since the focus was primarily on the just two learning styles: auditory and visual, this study did not examine various types of learning styles including their effect on learners' listening comprehension. As a result, more study will be required to determine to reveal kinesthetic learning method correlates with learners' listening comprehension.

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