Engaging Autonomous Reading Utilizing Metacognitive Strategy Instructions: How EFL Indonesian Auditory Learners are becoming?

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Abstract: Auditory learners are who learn best through hearing things. Considering that learning English includes learning to read written passages, this paper explores the possible strategy to help them improve their reading achievement. This is crucial because empirical evidence shows that the worst test score auditory learners get is in reading comprehension test. Theoretically, this might be due to their dysfunctional beliefs about reading, unsuitable strategy use, and motivational barriers including poor learner self-concept and self-efficacy. Meanwhile, strategy use is among the fundamental elements that helps determine how and how well learners learn a second/foreign language. To solve the problem, metacognitive strategies are believed to be the most suitable to help them learn to read better. This is because metacognitive strategies take care of how learners regulate their learning intentionally. So, metacognitive strategy instructions (MSI) are the instructions (teaching) that can help learners use suitable strategy to make them strategic readers. As a result, being able to control over their reading process, EFL Indonesian learners are expected to use these strategies as sources to overtake the objective of reading activities in English classes as a personal interpretation or meaning making rather than delimiting their experience or learning to a comprehension or acquisition of English linguistic knowledge only. 25 auditory students were grouped by conducting VAK Questionnaire. Then, all subjects were administered the pre-test and after getting MSI training they got post reading comprehension test. The results showed that the significance value was \(p = .043/2 = .0215\) and it was below the significance value \(\alpha < .05\). It means that auditory learning style influenced the enhancement of reading skill after being trained with Metacognitive Strategy Instruction.

Key Words: Metacognitive Strategy Instruction, reading skill, auditory learning style

Introduction

Ordinarily, reading is a thinking process and also the active process of understanding print and graphic texts. Subsequently, autonomous readers know that when they read, what they read is expected to make sense. They inspect their understanding, and when they miss the meaning of what they are reading, they frequently unwittingly select and use a reading
strategy (such as rereading or asking questions) that will help them re-link with the comprehension of the text.

Recent studies have shown that students use a wide range of learning strategies to enhance their reading skills, such as, previewing, predicting, skimming and scanning, guessing, and paraphrasing. Therefore, the teacher has to find ways to assist students in developing their reading comprehension ability through learning strategies. One learning strategy that is used in this research is Metacognitive Strategy Instruction (MSI), different from other learning strategies. Using MSI as a reading strategy can make EFL students become regulators of reading strategies and use reading strategies selectively and flexibly according to different reading tasks they face. Passingly, being able to handle over their reading process, EFL students are expected to utilize these strategies as resources to overtake the goal of English reading as individual interpretation or meaning making rather than limiting their experience or learning to an understanding or acquisition of English linguistic knowledge only (Carrell et al., 1998).

Metacognitive strategies are identified with how we think and learn (Ashman & Conway, 1993), incorporating three skill techniques: planning, monitoring, and evaluation (Cross & Paris, 1988). Before beginning any reading assignment, students must be educated on the most proficient method to enhance and utilize their planning, monitoring, and evaluation skills. It is very important to enhance the addressing abilities of students in the process of teaching metacognitive strategies (Hutt, 1997).

To help students to interact with the MSI, detecting the profiles of the students, the way on which they learn, their strengths and weaknesses, is a crucial one. In this context, learning styles arise as useful indicators as they are defined as the characteristic of cognitive, affective, and psychological behavior that serve as relatively stable indicators of how learners perceive, interact with, and respond to the learning environment (Keefe, 1988). Numerous studies report that the use of learning styles in teaching is an important factor that can improve the quality of education (Felder & Spurlin, 2005; Hawk & Shah, 2007). Among these studies, Layman, Cornwell, and Williams (2006) propose an evaluation of the instructional focused around learning styles and the personality types. Language learning styles and strategies are among the fundamental elements that help determine how –and how well –our students learn a second or foreign language.

As MSI can help learners use suitable strategy to make them strategic readers, EFL learners are expected to use these strategies as resources to pursue the goal of reading activities in English classes as a personal interpretation or meaning making rather than confining their experience or learning to an understanding or acquisition of English linguistic knowledge. To confirm the postulation, using three skill techniques of MSI: planning, monitoring, and evaluation, teachers are suggested to find empirical evidence by conducting a study to find out the effect of MSI on learners’ reading comprehension of the auditory learning style.
Based on the background of the study presented, the research question of this study is whether the post-test average reading score of the auditory EFL Indonesian students after being taught using Metacognitive Strategy Instruction higher than their pre-test average score.

**Review of Literature**

The MSI training contains of practicing basic reading strategies (O'Malley, Chamot, Stewner-Mazanares, Kupper, and Russo, 1985), such as 1) **planning**, including: predicting - such as based on what is already known and how it is connected to what might happen next, finding the main idea of a paragraph, recognizing topic sentences, distinguishing the main idea from supporting details; 2) **monitoring**, including: clarifying - such as concentrating on key words and assuming their meaning from the context; 3) **evaluating**, including: summarization - such as key people, key place, key information or key ideas; using semantic map to figuring; questioning - such as what is the main idea, what is happening, what would you do if…? Furthermore, the training will also contain interactive group activities that attract the subjects to observe their own reading process and that of their peers, including observing and discussing the strategies they adjust to understand. In order to encourage the students to apply the strategies provided during the training in their independent reading, after each lesson, the subjects is given reading assignments to work on at home and record their reading in the reading strategy journal.

Ashman & Conway (1993) referred that MSI are identified with how we think and learn, incorporating three skill techniques: planning, monitoring, and evaluation. Before beginning any reading assignment, students must be educated on the most proficient method to enhance and utilize their planning, monitoring, and evaluation skills. It is very important to enhance the addressing abilities of students in the process of teaching metacognitive strategies (Hutt, 1997). Students need to pose the accompanying inquiries with a specific end goal to be fruitful in reading comprehension (Blakey& Spence, 1999): 1). What is the main idea of the reading text? 2) How many supportive ideas are there in the reading text? 3). How can supported details be explained? 4). What kind of examples are given? 5). Are the examples clear and understandable enough to enable me to understand the main idea? 6). What are the important names, places, and dates mentioned in the text? 7). Do I need to read the text again? Should I check the dates, names, concepts, etc., in the text again? Such questions will ensure that the students focus on the reading text.

Studies on metacognition and reading comprehension reveal the strong relation between the use of strategies, awareness, and reading comprehension. Successful readers are more aware of strategic reading and probably use strategic reading techniques. Garner (1987) found that the awareness and reading skills of students who are trained on metacognitive strategies
improved. Awareness about reading strategies is a crucial cognitive gain. The present research was designed in the light of above-mentioned facts.

Metacognitive strategies (e.g., recognizing one’s own learning style preferences and needs, planning for an L2 task, gathering and organizing materials, organizing a study space and a schedule, observing mistakes, and evaluating task success, and evaluating the success of any type of learning strategy) are employed for managing the learning process on the whole. Among native English speakers learning foreign languages, Purpura (1999) discovered that metacognitive strategies had “a significant, positive, direct effect on cognitive strategy use, supplying clear evidence that metacognitive strategy use has an executive function over cognitive strategy use in task completion”.

It is substantially neutral until the context of its use is thoroughly considered when a given strategy is neither good nor bad. What causes a strategy positive and beneficial for a given learner? A strategy useful if the subsequent conditions are present: (a) the strategy relates well to the L2 task at hand, (b) the strategy fits the particular student’s learning style preferences to one degree or another, and (c) the student employs the strategy effectively and links it with other relevant strategies. Strategies that meet these conditions “make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new conditions” (Oxford, 1990). When left to their own devices and if not encouraged by the teacher or forced by the lesson to use a certain set of strategies, students typically use learning strategies that reflect their basic learning styles (Oxford & Ehrman, 1995). However, teachers can actively support students “stretch” their learning styles by trying out some strategies that are outside their main style preferences.

Styles and strategies help to specify a particular learner’s ability and willingness to work inside the framework of various instructional methodologies. It is overbold to think that a single L2 methodology could possibly fit an entire class filled with students who have a range of stylistic and strategic preferences. Instead of choosing a specific instructional methodology, L2 teachers would do better to engage a broad instructional approach, particularly the best version of the communicative approach that contains a combined focus on form and fluency. Such an approach enables for deliberate, creative variety to meet the needs of entire students in the class. Cassidy (2004) and Cohen (2003) indicated that the term learning style refers to the preferred way(s) in which an individual approaches a task, a learning situation or tries to solve a problem. Meanwhile, Kolb (1984) disputes that “Individual learners have particular strengths which form the basis of their preferred learning style”. Oxford (1990) indicated that learning styles are stable and difficult to change. Yet, Keefe (1979) declared that learning styles are rather stable behaviors or ways of functioning that indicate how learners perceive and interact with the learning environment. Learning styles have cognitive, affective, personality-related, and physiological characteristics (Ehrman & Leaver, 2003; Keefe, 1979).
Methodology

To obtain research data, this study is conducted at one private university in Bireuen Regency, Aceh Province, Indonesia. 25 auditory learning style students group is selected and grouped by conducting VAK (Visual Auditory Auditory) Questionnaire. The MSI training lasts 10 meetings, 100 minutes for each meeting. The samples of this research are all the students of 5th semester of English Department.

In each class hour they were taught metacognitive strategies and they applied them to the passages. The MSI training consists of practicing basic reading strategies (O'Malley, Chamot, Stewner-Mazanares, Russo, and Kupper 1985), such as 1) planning, including: predicting - such as based on what is already known and how it related to what might happen next, finding the main idea of a paragraph, recognizing topic sentences, distinguishing the main idea from supporting details; 2) monitoring, including: clarifying - such as concentrating on key words and guessing their meaning from the context, ; 3) evaluating, including: summarization - such as key people, key place, key information or key ideas; use semantic map to visualizing; questioning - such as what was the main idea, what was happening, what would you do if...? Moreover, the training also includes interactive group activities that engage the subjects to observe their own reading process and that of their peers, including monitoring and discussing the strategies they apply to understand. In order to promote the students to apply the strategies presented during the training in their autonomous reading, after each lesson, the subjects were given reading assignments to work on at home and record their reading in the reading strategy journal.

The treatments includes Metacognitive Strategy Instruction training in learning style groups. The content in each group is equivalent. In order to eliminate the pitfalls of an experimental study, one instructor was recruited in this study. As Barber (1973) pointed out, “research studies would be less biased if the investigator who plans the study and who has an investment in the outcome is not the same person who has responsibility for the data analysis.” For that reason, one English teacher from the university was recruited to participate in the study due to her interest and willingness to try a different approach to English teaching and thus she was the instructor for the groups. To measure reading skill, the researcher will use the same measurement for each learning style student category. For each correct answer in the post and pre-test, the students were scored 10, and for each wrong answer in the post and pre-test, the students will be scored 0. After MSI treatment, the students got the post reading comprehension test to get the scores of reading skill.

A one tailed before and after paired sample t-test was established to answer the research question. Before conducting t-test, a normality test is used to specify whether sample data has been drawn from a normally distributed population (within some tolerance). If the assumption of normality is not valid, the results of the tests are unreliable. When the error variances of the independent variable are normally distributed, it can be referred to normality of the data distribution in the dependent variable. For this purpose, Kolmogorov-Smirnov test
and Shapiro-Wilk test were utilized to check whether the assumption of normality could be fulfilled. If the value of \( p \geq \alpha \), the error variances are considered normally distributed. In other words, the assumption of normality is met if the result of assumption testing is not statistically significant.

**Findings**

The descriptive analysis data of pre and post-test gained by 25 students of participants was conducted. The result of descriptive statistics analysis is presented in Table 1. As seen on Table 1, in the pre and post reading comprehension test, auditory learning style students performed the highest mean scores as 69.57 and 65.22. Concerning to standard deviation, auditory learning style students carried out the standard deviations in pre and post-test as 13.56013 and 13.45313. (13.56013 and 13.45313). It was meant that the post-test score was more homogeneity than the pre-test score. The mean difference of pre and post-test was 4.1732.

**Table 1**

**Descriptive statistics analysis of students’ score**

<table>
<thead>
<tr>
<th>Test-set</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Number of Data</th>
<th>Minimum Score</th>
<th>Maximum Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>29.0436</td>
<td>13.56013</td>
<td>25</td>
<td>8.7</td>
<td>69.57</td>
</tr>
<tr>
<td>Post-test</td>
<td>33.2168</td>
<td>13.45313</td>
<td>25</td>
<td>13.04</td>
<td>65.22</td>
</tr>
<tr>
<td>Total</td>
<td>62.2604</td>
<td>27.01326</td>
<td>50</td>
<td>21.74</td>
<td>134.79</td>
</tr>
</tbody>
</table>

To examine whether the distribution as a whole deviated from a comparable normal distribution, the Kolmogorov-Smirnov test and Shapiro-Wilk test were done. The pre reading comprehension test scores gained by auditory learners D(25) = .125, \( p = .200 \) (Kolmogorov-Smirnov), D(25) = .926, \( p = .069 \) (Shapiro-Wilk), were statistically normal (see Table 2).

**Table 2**

**Kolmogorov-Smirnov Test and Shapiro-Wilk Test of Normality of Pre-Test Scores Data Distribution**

<table>
<thead>
<tr>
<th>VAK</th>
<th>Kolmogorov-Smirnov(^a)</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td>PreTest</td>
<td>Statistic ( .125 )</td>
<td>df 25</td>
</tr>
<tr>
<td>Auditory</td>
<td>( .200^* )</td>
<td>Sig.</td>
</tr>
<tr>
<td></td>
<td>.926</td>
<td>df 25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sig. 0.069</td>
</tr>
</tbody>
</table>

\(^a\) Lilliefors Significance Correction

\(^*\) This is a lower bound of the true significance.

One tailed before and after paired sample t-test was conduct to answer the research question. The results showed that there was statistically significant difference between the pre and post-test average reading score of the auditory EFL Indonesian students after being taught using Meta cognitive Strategy Instruction \( (p=.043/2 = .0215) \). This result showed that auditory
learning style influenced the enhancement of reading skill after being trained with Metacognitive Strategy Instruction (see Table 3).

**Table 3**
The one group pre-test and post-test t-test of Auditory EFL Indonesian student analysis

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
<td>Upper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 1</td>
<td>-4.173</td>
<td>9.76066</td>
<td>1.95213</td>
<td>-8.2022</td>
<td>-0.1442</td>
<td>-2.14</td>
<td>24</td>
</tr>
<tr>
<td>PreTest_</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auditory -</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PostTest_</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auditory</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Discussion**

As informed by Coffield (2004) one of the most important issues in learning to learn is an individual’s taking the responsibility for his/her own learning. The individuals should find out what their own learning styles are and what characteristics this style has and they should therewith behave according to this style. Throughout this line, the individual can acquire the constantly changing and increasing amount of information without the need for the support of others. At the point when the learner assumes the liability of his/her own particular learning, s/he connects meaning to the process of learning. S/he creates a comprehension of his/her own type of learning style and turns out to be a big deal more happy with the environment s/he interfaces with. Every chance for learning is a chance for him/her. It is in the learner’s hand to utilize different ways and develop the learning styles to some extent. One of the opportunity was using Metacognitive Strategy Instruction on reading comprehension text by auditory learners that became one of research questions of this study.

After receiving the pre-test, the auditory learners group also received Metacognitive Strategy Instruction on reading comprehension training along with 10 reading texts of 10 meetings. Reading strategy instruction included teacher modeling (what to apply, how to apply, and why to apply) and explicit explanation of the strategies, and scaffolding of student learning the strategies. The subjects practice the strategy taught, guided practice using the strategy with gradual release of responsibility, and independent use of the strategy.

When the opening training was conducted, the students from auditory learning styles were initially not comfortable in asking each other questions and answering each other’s questions and especially uncomfortable with questioning their peers or speaking out loud about their thinking for sharing. As the experiment progressed over 3 meetings, auditory EFL Indonesian students gradually demonstrated a noticeable difference in their comfort. The auditory learners were bound and gained confidence in sharing reading strategies they used in
all the assigned reading compared to the others. The auditory learners tended to ask a lot questions and active on the training, and they whispered the words on the page as they read.

In auditory learners group, the results showed that there was significant higher of the post-test average reading score of the auditory EFL Indonesian students after being taught using metacognitive strategy instruction compared to their pre-test score. As statistically analyzed, conducting one group before and after t-test, the significance value was \( p = \frac{.043}{2} = .0215 \) and it was below the significance value \( \alpha < .05 \).

These finding indicated that auditory learners used and practiced Metacognitive Strategy Instruction well. With respect to three basic reading strategies of Metacognitive Strategy Instruction: planning, monitoring, and evaluating, it could be stated that auditory learners can successfully predict, clarify, and summarize the reading comprehension texts. In addition to these, the results also show that auditory learners know how to manipulate and transform the target language well. That is, they are aware of how they learn. Auditory learners can develop their metacognitive awareness more successfully in order to be more effective and, substantially, more autonomous reader. If learners are aware of how they read, then they can recognize the most effective ways of doing so. It can be also stated that auditory learners also know how to control their emotions and attitudes about learning. Concerning social attitude, the result implied that these learners can also ask questions a variety of purposes without any hesitation. In other words, this research revealed evidence that auditory learners were active to involve in this Metacognitive Strategy Instruction training on reading comprehension.

This is according to the study by Hsu and Chen (2016). They conducted a research to explore the relationship between EFL students’ learning styles and learning strategy. They used the index of learning styles of Felder & Solomon that contained 4 learning style models: active/balanced/reflective, sensing/balanced/intuitive, visual/balanced/verbal, and sequential/balanced/global. Their research revealed that active/reflective and balanced styles had significant effect in social strategies, memory strategies, and metacognitive strategies. In metacognitive strategies, active learners used significantly higher strategies than those of reflective and balanced learners. Meanwhile, Carbo et. al. (2006) said that auditory learners are defined as those who can recall ‘at least 75 percent of what is discussed or heard in a normal 40 – 45 minutes period’.

In accordance with Tabanlioglu (2003) who conducted a research to find the relationship between learning styles and language learning strategies. He studied 60 students’ perceptual learning style preferences and the results showed that auditory style had a significant relationship with memory, cognitive, affective and social strategies. Although there was no significant relationship between auditory learners and metacognitive strategies, \( p \) auditory learner value = .066 that most closely to \( \alpha < .05 \) compared to \( p \) visual learner value = .546, and \( p \) kinesthetic learner value = .276. On the other occasion, Banisaeid and Haung (2015) arranged a study on investigation of 204 Iranian EFL learners’ perceptual learning style preferences, language learning strategies and self-regulated learning strategies. His result of study showed that learners with more language learning strategy uses favoured an auditory
style. The other result was since auditory style can predict changes in self-regulated learning strategies and language learning strategies, and because the participants of the study used not only more metacognitive and cognitive strategies among language learning strategies, but also used more metacognitive self-regulation among self-regulated learning strategies, it can be deduced that most Iranian EFL learners favoured an auditory style.

**Conclusion and Suggestion**

**Conclusions**

Reading classrooms contain a wide variety of learners with different learning styles. If students’ needs are neglected or not met properly, they will get bored, inattentive, unmotivated, and discouraged and lead to poor performance in the reading class. Meanwhile, auditory learners can best learn by hearing and listening. They understand and remember things that they have heard. They store information by the way it sounds, and they have an easier time understanding spoken instructions than written ones. The result of this study showed that the post-test average reading score of the auditory EFL Indonesian students after being taught using Metacognitive Strategy Instruction is significantly higher than their pre-test score. It means that auditory learning style influences the enhancement of reading skill after being trained with Metacognitive Strategy Instruction. The result of this study also emphasizes that auditory learners are active to involve in this Metacognitive Strategy Instruction training on reading comprehension. MSI on reading comprehension as a reading strategy reveal the strong relation between the use of strategies, awareness, and reading comprehension. In most cases, the studies on the metacognitive aspects of reading indicate a need to increase understanding of readers’ metacognitive awareness of reading strategies to gain insights into effective strategy instruction. Whereas the MSI strategies will be useful if it fits the particular student’s learning style preferences, applying techniques of MSI, teachers are suggested to find empirical evidence by conducting a study to find out the effect of MSI on learners’ reading comprehension of the other learning styles.

**Suggestion**

A qualitative research is needed in this field of research. Despite little evidence in this study, there existed facts of individual differences (such as individual learning styles and reading strategy transfer quality), which can only be examined through qualitative methods. So, further research of this kind should incorporate questionnaire and interviewing methods to get better insight of overall findings for groups of learners who implementing Metacognitive Strategy Instruction to improve their reading skill.

**References**


Bioprofiles

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