

**THE EFFECT OF PQ4R STRATEGY AND LINGUISTIC INTELLIGENCE
ON READING COMPREHENSION OF THE TENTH GRADE STUDENTS
OF SMAN 1 SUKASADA IN THE ACADEMIC YEAR 2011/ 2012**

ARTICLE

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ABSTRACT

Keywords: linguistic intelligence, PQ4R strategy, reading comprehension.

This study aimed at investigating whether the implementation of PQ4R strategy and the students' linguistic intelligence gave a significant effect to the students' reading comprehension. The study was an experimental study by applying 2 x 2 factorial design. The population was 5 classes (153 students) of grade X in SMAN 1 Sukasada in the academic year 2011/ 2012, in which 4 classes were samples which were assigned into two groups, i.e. experimental group and control group, by *Cluster Random Sampling*. The research data were collected through tests that were analyzed by using *Statistical Two-Way Anova* and *Tukey Test*. The result shows that, first, there was a significant difference on the students' reading comprehension between the students who were taught by using PQ4R strategy and conventional reading strategy, in which the students who were taught by using PQ4R strategy had higher reading comprehension than those students who were taught by using conventional strategy. Second, there was a significant interactional effect on the students' reading comprehension between the strategies applied and the students' linguistic intelligence. Third, there was a significant difference on the students' reading comprehension between the students who had high linguistic intelligence when they were taught by using PQ4R strategy and conventional strategy, in which the students who had high linguistic intelligence taught by using PQ4R strategy had higher reading comprehension than those students who were taught by using conventional reading strategy. Fourth, there was no any significant difference between the students' reading comprehension of the students who had low linguistic intelligence when they were taught by using PQ4R strategy and conventional strategy.

**PENGARUH STRATEGI PQ4R DAN STRATEGI CONVENTIONAL
SERTA INTELLIGENSI LINGUISTIK TERHADAP KEMAMPUAN
MEMBACA PEMAHAMAN PADA SISWA KELAS X
SMAN 1 SUKASADA TAHUN AJARAN 2011/ 2012**

ABSTRAK

Kata kunci: intelligensi linguistik, strategi PQ4R, membaca pemahaman.

Penelitian ini bertujuan untuk mengetahui apakah penerapan strategi PQ4R yang ditinjau dari intelligensi linguistik memberikan pengaruh interaksi yang signifikan terhadap kemampuan siswa dalam membaca pemahaman. Penelitian ini merupakan penelitian eksperimental dengan menggunakan rancangan factorial 2 x 2. Populasi berjumlah 5 kelas (153 siswa) dari semua siswa di kelas X di SMA Negeri 1 Sukasada tahun ajaran 2011/ 2012. Dengan menggunakan metoda kelompok secara acak (cluster random sampling), 4 kelas ditentukan sebagai sampel dan dibagi menjadi dua kelompok, yaitu kelompok eksperimental dan kelompok kontrol. Data penelitian ini dikumpulkan melalui tes, yang kemudian dianalisis dengan menggunakan uji statistic anava dua jalur dan uji Tukey. Hasil penelitian menunjukkan bahwa, *pertama*, ada perbedaan yang signifikan pada kemampuan siswa dalam membaca pemahaman antara siswa yang diajar dengan strategi PQ4R dan strategi konvensional, di mana siswa yang diajar dengan menggunakan strategi PQ4R memiliki kemampuan membaca pemahaman yang lebih tinggi daripada mereka yang diajar dengan menggunakan strategi konvensional. *Kedua*, ada pengaruh interaksi yang signifikan antara strategi mengajar yang diterapkan dengan kemampuan intelligensi linguistik siswa pada kemampuan mereka dalam membaca pemahaman. *Ketiga*, terdapat perbedaan yang signifikan pada kemampuan siswa dalam membaca pemahaman yang memiliki tingkat intelligensi linguistik yang tinggi ketika mereka diajar dengan menggunakan strategi PQ4R dan ketika mereka diajar dengan menggunakan strategi konvensional, di mana kemampuan siswa dalam membaca pemahaman yang memiliki tingkat intelligensi linguistik yang tinggi yang diajar dengan menggunakan strategi PQ4R lebih tinggi daripada mereka yang diajar dengan menggunakan strategi konvensional. *Keempat*, tidak terdapat perbedaan yang signifikan pada kemampuan siswa dalam membaca pemahaman yang memiliki tingkat intelligensi linguistik yang rendah ketika mereka diajar dengan menggunakan strategi PQ4R dan ketika mereka diajar dengan menggunakan strategi konvensional.

1. INTRODUCTION

The students who are taught English in Indonesia are expected to be able to use English for communication in their daily life. The students should master four language skills, namely: listening, speaking, reading and writing. Therefore, as a foreign language, English must be learned by the students since elementary schools.

Reading skill is one of the most important language skills that should be mastered by the students because every aspect of life involves reading, reading skill is the foundation for most of their future academic endeavors, reading is very important to support the development of the other language skills, by having a good skill in reading, the students are able to gain any knowledge easier and others. However, the fact showed that the ability of the students in reading is very low, worrying and not satisfying. It is proven by the scores obtained by the students in reading comprehension which is under the minimum mastery criteria. As the result, many students

failed to be able to use English to communicate confidently in real life situation.

The problems above could be caused by some factors, like: the teaching strategies applied by the teacher, the students themselves, the quality of the teacher who teaches the students, the materials used and others, (Burns et al., 1996). However, from a mountain of factors, the teaching strategies applied by the teacher and the learners' differences were two important factors that should be taken into account thoroughly in teaching reading.

Most teachers were afraid that their students would not pass their final exam. Therefore, the students were sometimes forced to practice some tests as much as possible. They studied hard only for the grades. They could not enjoy their activities, since they could not satisfy themselves. Therefore, the students became stressful while learning.

However, it needs to be solved. The teachers need to equip themselves with various teaching strategies that can help learners gain their goal of learning English. The strategies applied must be able to give chance for the students to promote language learning. Moreover, the strategies must be able to facilitate the students to be active to participate during the teaching and learning process. Since, learning a language is a process of experiencing how to use of the language, therefore, the language cannot be transferred, but it must be felt, done and practiced.

PQ4R strategy is one of the strategies proposed to be a good strategy in improving the students' reading comprehension (Thomas and Robinson, 1972). PQ4R strategy consists of a six-step process which involves previewing, questioning, reading, reflecting, reciting and reviewing. Moreover, Slavin (1994) states that PQ4R strategy can help the students focus in organizing information and making it meaningful.

Fox, Radloff and Hermann (1994) also state that PQ4R strategy provides a series of steps aims to help the reader understand and remember what he or she has already read.

However, the students' success in reading comprehension is also affected by the students themselves. One of the factors that is caused by the students is their intelligence. Intelligence is defined as the capacity to solve problems that are valued in one or more cultural setting, (Gardner, 2004: 5). Human intelligences can be defined into eight. And, one of human intelligences which is in line with language is linguistic intelligence. Linguistic intelligence is the ability to use and process words effectively either orally or written, (Gardner, 1999, 41).

Based on the explanation above, then, a study would like to be conducted in order to investigate the effect of PQ4R strategy and linguistic intelligence on the reading comprehension of simple written essays in the forms of narrative,

descriptive and news item of the students on the tenth grade of SMAN 1 Sukasada in the academic year 2011/2012. There were three variables in this study, namely: independent variable, moderator variable and dependent variable. The dependent variable was the teaching strategies applied, that could be divided into PQ4R strategy and conventional strategy. The moderator variable was the students' linguistic intelligence that could be divided into the students who had high linguistic intelligence and the students who had low linguistic intelligence. The dependent variable was the students' reading comprehension.

The research objectives could be formulated as follows. (1) To investigate whether or not there is a significant difference on the students' reading comprehension between the students who are taught by using PQ4R strategy and conventional reading strategy. (2) To investigate

whether or not there is a significant interactional effect on the students' reading comprehension between the teaching strategies applied and the students' linguistic intelligence. (3) To investigate whether or not there is a significant difference on the students' reading comprehension between the students who have high linguistic intelligence who are taught by using PQ4R strategy and those students who are taught by using conventional reading strategy. (4) To investigate whether or not there is a significant difference on the students' reading comprehension between the students who have low

2. RESEARCH METHODS

The population of this study was all the students on the tenth grade of SMAN 1 Sukasada in the academic year 2011/ 2012. They had been

selected as the population of this study because based on the result of the observation and the result of an interview conducted to the teachers of English there, they declared that the tenth grade students of SMAN 1 Sukasada in the academic year 2011/2012 had problem in reading comprehension. There were 40 students as the samples of the experimental group and 40 students were as the samples of the control group. The samples were selected through cluster random sampling technique.

To achieve the purpose of the study, Post-test only control group design with 2x2 factorial was applied. By the factorial arrangement, there were eight groups of data gained, as follows: a) the group of the students who were taught by using PQ4R strategy, b) the group of the students who were taught by using conventional reading strategy, c) the group of the students who had high linguistic intelligence, d) the group of the students who had low linguistic

intelligence, e) the group of the students who were taught by using PQ4R strategy and had high linguistic intelligence, f) the group of the students who were taught by using conventional reading strategy and had high linguistic intelligence, g) the group of the students who were taught by using PQ4R strategy and had low linguistic intelligence and h) the group of the students who were taught by using conventional reading strategy and had low linguistic intelligence.

There were two kinds of instrument used in this study, namely: the data collection instruments and the treatment instruments. In order to obtain the data, two kinds of instrument were used, namely: quantitative and qualitative instruments. The instruments for collecting quantitative data were a linguistic intelligence test and a reading comprehension test. The linguistic intelligence test used was to measure the level of the students' linguistic intelligence, in which they were classified into the students who

had high and low linguistic intelligence. The construct validity of the linguistic intelligence test used in this study referred to WAIS-IV (Wechsler Adult Intelligence Scale – IV). The test consisted of 25 items of similarities (focused in comparing a pair of words which have certain relationships), 25 items of vocabulary (to measure the ability to match the similar meaning of the identified words), and 20 items of comprehension (to measure the ability to find the meaning of the abstract social conventions and expressions given). The reading comprehension test used was to measure the two groups achievement in reading comprehension of simple written essays in the forms of narrative, descriptive and news item in terms of finding out the main ideas and supporting details of the texts, identifying the extrinsic information of the texts, identifying the intrinsic information of the texts, finding out the textual references from the texts and finding out the meaning of the certain words used in the texts. While, the instrument for collecting the

qualitative data was interview guide. The data were analyzed through quantitative and qualitative analysis.

The treatment instruments used in this study covered teaching scenarios and teaching handout. The teaching scenarios were used as guide lines to conduct the lesson as treatment instruments. Two types of teaching scenarios were used, namely: teaching scenario of PQ4R strategy that was used for teaching the experimental groups and teaching scenario of conventional strategy that was used to teach control groups. And, twelve teaching handouts used in this study. Both groups received the same materials.

Data analysis was administered after obtaining the scores from the results of the posttest to both experimental and control groups. The scores obtained were analyzed by using two forms of statistical analysis, namely descriptive statistical analysis and inferential statistical analysis. The analysis of quantitative data was done by two-way Anova continued by post-

hoc testing by using Tukey test. The prerequisite test was done before the analysis to ensure that the data gained were normal and homogenous. While, the qualitative data gained were analyzed through stages such as transcribing, reducing, categorizing, analyzing and interpreting the data. The data gained were used to help the interpretation of quantitative data.

3. FINDINGS

Based on the two-way Anova and post-hoc testing, the findings were as follows. The first finding showed that the value of F_A was 9.353, while $F_{cv}(1; 76; 0.05) = 3.967$. Since F_A was higher than F_{cv} , then $H_0(1)$ which stated “there is no any significant difference on the students’ reading comprehension between the students who are taught by using PQ4R strategy and those students who are taught by using conventional strategy ” was rejected. It means that $H_a(1)$ which stated that “there is a significant difference on the students’ reading comprehension between the students who are taught by using PQ4R strategy

and those students who are taught by using conventional strategy” was accepted. It can be concluded that there was a significant difference on the students’ reading comprehension between the students who were taught by using PQ4R strategy and those students who were taught by using conventional strategy. The students’ reading comprehension who were taught by using PQ4R strategy was higher than the students’ reading comprehension who were taught by using conventional strategy. It means that the students who were taught by using PQ4R strategy achieved better reading comprehension than the students who were taught by using conventional strategy.

The second finding showed that the value of F_{AB} on the interactional effect was 6.421, while $F_{cv}(1; 76; 0.05)$ was 3.967. Since F_{AB} was higher than F_{cv} , it means that the null hypothesis $H_0(2)$ which stated “there is no any significant interactional effect on the students’ reading comprehension between the

teaching strategies applied and the students' linguistic intelligence" was rejected. It means that the alternative hypothesis H_a (2) which stated "there is a significant interactional effect on the students' reading comprehension between the teaching strategies applied and the students' linguistic intelligence" was accepted. Therefore, it can be concluded that there was a significant interactional effect on the students' reading comprehension between the teaching strategies applied and the students' linguistic intelligence.

The third finding in this study showed as the result of the first post hoc testing by using Tukey test. The Q_{cv} on $df=76$ at significance level 0.05 was 2.96, while the Q_{ob} was 5.592. It means that $Q_{ob} > Q_{cv}$, therefore H_0 was rejected. The conclusion was: there was a significance difference on the students' reading comprehension between the students who had high linguistic intelligence who were taught by using PQ4R strategy and those students who were taught by using conventional strategy.

The reading comprehension of the students who had high linguistic intelligence who were taught by using PQ4R strategy was higher than the reading comprehension of the students who had high linguistic intelligence who were taught by using conventional strategy. It means that the students who had high linguistic intelligence achieved better reading comprehension than the students who had high linguistic intelligence who were taught by using conventional strategy.

The fourth finding as the result of the second post hoc testing showed that the value of Q_{cv} on $df=76$ at significance level 0.05 was 2.96. From the calculation, Q_{ob} was 0.524. Therefore, H_0 was accepted. The conclusion was: there was no any significance difference on the students' reading comprehension between the students who had low linguistic intelligence who were taught by using PQ4R strategy and those students who were taught by using conventional strategy.

4. CONCLUSIONS

The conclusion of this study is as follows. (1) There was a significant difference on the reading comprehension of simple written essays in the forms of narrative, descriptive and news item in English class of the students of SMAN 1 Sukasada in the academic year 2011/2012 between the students who were taught by using PQ4R strategy and conventional strategy. The students' reading comprehension was better when they were taught by using PQ4R strategy than when they were taught by using conventional strategy. (2) There was a significant interactional effect between the teaching strategies applied and the students' linguistic intelligence on the reading comprehension of simple written essays in the forms of narrative, descriptive and news item in English class of the students of SMAN 1 Sukasada in the academic year 2011/2012. (3) There was a significant difference on the reading comprehension of simple written essays in the forms of narrative,

descriptive and news item in English class of the students of SMAN 1 Sukasada in the academic year 2011/2012 between the students who had high linguistic intelligence who were taught by using PQ4R strategy and conventional strategy. PQ4R strategy gave better contribution to the students' reading comprehension than conventional strategy for the students who had high linguistic intelligence. (4) There was no any significant difference at significance level 0.05 on the reading comprehension of simple written essays in the forms of narrative, descriptive and news item in English class of the students of SMAN 1 Sukasada in the academic year 2011/2012 between the students who had low linguistic intelligence who were taught by using PQ4R strategy and conventional strategy.

Implementing PQ4R strategy means the teachers serve as facilitators and motivators because it is students center learning and leads the students to be active readers; the students work with all students in the classroom,

work in group and work individually to get the summary of the texts; make the summary of each paragraph or per stopping point, try to understand the texts, use the important points and eliminate the unimportant ones. The implementation of PQ4R strategy also leads the students to be independent learners when they should prepare their own questions or summary from the texts given. Besides, PQ4R strategy can be used in any discipline of subjects. It is applicable in any areas, not only in language learning. The interaction found between the teaching strategies used in teaching reading comprehension and the students' linguistic intelligence showed that the implementation of PQ4R strategy was found to be more effective to the students who had high linguistic intelligence than conventional strategy, since the students who had high linguistic intelligence were more enthusiastic to learn because they did it to satisfy their personal achievement. By giving the students a chance to present their summary of the texts discussed, they

were very happy to perform their best, therefore, they were challenged to do something creative.

Even though the students who had low linguistic intelligence achieved better achievement in reading comprehension when they were taught by using PQ4R strategy (72.75) than those students who were taught by using conventional strategy (72.00), but the difference was not significant at 0.05 significance level. It was influenced by a number of factors. The students ignored the process of learning since they could not use a language fluently, well and completely. Therefore, they liked following the conventional way of doing things since they were not creative. They were unmotivated themselves to create the best result.

The students who had high linguistic intelligence who were taught by using PQ4R strategy (80.6250) had the highest mean score compared to the other groups. The implication of this finding was that the linguistic intelligence of students who had low

linguistic intelligence should be enhanced to have better achievement in reading comprehension. In other words, they should practice storytelling, participate in debates and discussions, learn new words, solve word puzzles and crosswords, practice letter writing, easy writing and read variously.

Based on the finding of the analysis and the implications, the suggestions could be given as follow. (1) The teachers of English of the tenth grade students of SMA Negeri 1 Sukasada in the academic year 2011/2012 should think to implement PQ4R strategy in teaching reading comprehension. PQ4R strategy is suggested to be applied since it involves activities that can increase the students' critical thinking through summarizing and sharing activities, and activate the background knowledge which can facilitate the use of the students' prior knowledge in various ways, like relating incoming information to already known information, allowing them to predict

the continuation of both spoken and written discourse, and as a basis for comparison and foundation in the students' brain which helps to predict what is to be expected and looked for in certain situation. In addition, PQ4R strategy had been proven in this study as an effective strategy in reading comprehension. Besides, the conventional strategy that was normally applied in teaching reading comprehension should be rearranged in order to have better result. The teachers of English are also suggested to be aware of linguistic intelligence that the students bring into the classroom, because they may have different linguistic intelligence based on their background, environment, and expectation. The awareness of the teachers may lead them to have more effective instructional planning and implementation. (2) For the institution, the result of this study is expected to give contribution and support the postgraduate program as a reference. (3) Lastly, the result of this study is also expected to be able to be used as a reference by other researchers in

conducting the study related to the teaching reading comprehension using different strategies, different moderator variables, and different students with different characteristics to obtain different insight on how to improve students' reading comprehension.

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