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An analysis of the efficacy of the PQ4R strategy versus the inductive method in enhancing rhetorical competence in Arabic language students

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## **Abstract**

Mastery of rhetoric is fundamental to the linguistic arts, exerting significant influence on language learners. It stands as a core subject within Arabic language and literature departments at all educational levels, underscoring its criticality for undergraduate students. The effectiveness of teaching methodologies employed in classrooms greatly impacts students' proficiency in this domain and serves to ignite their interest in further exploration. This study aims to examine the effectiveness of the PQ4R strategy versus the inductive method in enhancing rhetorical proficiency among Arabic language learners. The quasi-experimental method was chosen as it aligns with the research objectives, hypothesis, and procedures. The study involved 20 students applying the PQ4R strategy and 20 students using the inductive teaching strategy, selected through rigorous sampling techniques at Shiraz University and Al-Mustafa International University in Isfahan. The findings of this study suggest that there are notable significant statistical variances differences in dimensional assessment outcomes in support of the group that practiced practised rhetoric through the PQ4R approach. Moreover, the results indicate that the effect size of this strategy on grade disparities was substantial compared to the grades obtained by the group that learned rhetoric through the inductive teaching method.

# **Keywords:**

- rhetoric
- metacognitive strategies
- PQ4R strategy
- inductive method

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#### 1. Introduction

Rhetoric is a fundamental subject within the academic curriculum of Arabic language and literature departments. Despite its significance and prominent position among Arabic language studies, concerns are growing regarding students' proficiency in rhetoric and, their limited capacity to implement it in speech and writing, which has resulted in their resistance towards learning it and avoidance of the subject. Students' avoidance and hesitance towards this subject can be attributed to the instructional methods and strategies employed by teachers in teaching rhetoric (Al-Jubouri, 2019: 44). This study seeks to evaluate the and compare of the inductive teaching method and the PQ4R strategy in enhancing the rhetorical skills of Arabic language learners in Iranian universities.

## 1.2. Research Question(s)

The study aims to address the following two inquiries:

To what degree do statistically significant differences exist in the grades of students in the experimental and control groups regarding rhetoric when utilising the PQ4R strategy and the inductive method?

What is the efficacy of the suggested teaching approach in cultivating the rhetorical competence of the experimental group in rhetoric, and how substantial is its influence?

#### 2. Literature Review

The PQ4R method, created by Thomas and Francis Robinson in 1972, focuses on clarification and detail to aid learners in memorizing memorising and retaining text information in long-term memory (Al-Ajrash, 2013: 92). This strategy aims to foster selfawareness in comprehension, enabling learners to scrutinize scrutinise their understanding, thus gaining insight into their learning, and regulating their reading comprehension processes. This pertains not only to the content covered in the classroom, but also extends to their reading activities beyond the classroom setting (Al-Jubouri, & Al-Sayegh, 2015: 242). The instructional process using this method involves six steps: The initial step is P (preview), involving an initial examination of the topic. The second step is Q (Question), which consists of posing questions about the topic being studied. The third step is Read, where the learner endeavours to respond to the earlier questions. Reflect, introduced through explanatory additions, is the fourth step. Recite is the fifth step, where the learner hears the responses to the questions asked individually. The last step is Review, which involves a comprehensive overview of the academic subject, collectively recalling key information, revisiting previous questions, and addressing them with the teacher's guidance. (Affaneh, & Jaysh, 2009: 189).

## 3. Methodology

The current study employed a quasi-experimental design to investigate the impact of the PQ4R strategy on enhancing rhetorical competence in Arabic language learners. This method is widely regarded as suitable and effective in the realm of research methods for human sciences due to its appropriateness in achieving research objectives hypotheses, and protocols (Abu Hashem, No date: 11). It is distinguished by its capacity to manage various factors that influence the phenomenon under study. This approach is grounded in the scientific method, commencing with the identification of a research problem that requires the researcher to explore causes and conditions through experimentation for resolution.

## 4. Results & Discussion

To ensure the equivalence of both groups prior to implementing the teaching procedures and to compare the efficacy of the inductive method for the control group and the PQ4R strategy for the experimental group in enhancing rhetorical skills, a t-test was utilised. The subsequent table illustrates this comparison:

Table 1. presents a t-test comparing the performance of the two groups before and after the implementation of the teaching procedures

Significance level	value (t)	The variable	Test
0.680	0.410	Statement section	Pre
0.000	17.385	Statement section	Pos

Upon careful examination of the preceding table, we observe that the significance level in the pre-test was 0.680, surpassing 0.05. The data from the above table suggest that the t-value at this point was not statistically significant, indicating equality between the two groups in the pre-test, with no statistically significant differences at the significance level (P > 0.05). Regarding the relative effectiveness of the inductive method and the PQ4R strategy based on the data seen in the prior table, we discover statistically significant differences in the post-test favouring the group that received the PQ4R strategy, with a significance level lower than (P > 0.05). Furthermore, the t-value at this point exceeds the t-value in the pre-test, which was 17.385, suggesting that the two groups do not have equal grades obtained in this phase, thereby highlighting the effectiveness of the mentioned strategy over the inductive method.

Additionally, we examined the efficiency of the suggested teaching approach, characterised by the PQ4R strategy, and the magnitude of its impact on enhancing rhetorical competence. Eta-squared was employed to determine the effect size, and the Cohen's d formula was utilised to analyse the magnitude of the effect size, displayed in the subsequent table:

Table 2. Estimating the effect size for evaluating the impact of the suggested teaching approach on the enhancement of rhetorical proficiency

Effect size level	d-value	Eta- squared value	Degree of freedom	t-value	degree
large	5.42	0.833	19	17.385	Total degree

The data in the table shows that the eta-squared value has reached 0.833, indicating that 83% of the variance in grades can be attributed to the impact of the proposed teaching method, specifically the PQ4R strategy. A value of eta-squared close to 1 implies that the variance in grades from the subsequent test is mainly due to the effectiveness of the strategy implemented in the classroom. Additionally, based on Cohen's equation, the effectiveness of the proposed teaching method in improving communicative efficiency was found to be significant, with a large effect size indicated by a d-value of 5.42. This underscores the substantial effectiveness of the PQ4R strategy in enhancing communicative efficiency in the experimental group.

## 5. Conclusion

This study aimed to compare the impact of the inductive teaching method and the PQ4R strategy and evaluate their effectiveness in enhancing the rhetorical competence of Arabic language learners. The results indicated statistically significant differences favouring the experimental group that was instructed in rhetoric using the PQ4R strategy. The results also revealed a substantial effect size of this strategy on the score discrepancy between the two groups. The results align with Al-Jubouri and Al-Sayegh's (2015), Al-Amiri and Mahmoud's (2017), and Hashem's (2020) findings about the efficacy of the PQ4R strategy in enhancing educational content learning among the experimental group. In contrast, the results diverge from Mustafa's (2020) study, which supports the effectiveness of the conventional method in addressing dyslexia challenges within the control group.

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