

The Effectiveness of Using SQ3R Strategy in Developing First-Year Secondary Female Students' Critical Thinking Skills

Abdullah Bin Mohamed Al-Ghadouni¹, Bedour Bint Khalifa Al-Shamri²

Abstract

The current study aimed to identify the effectiveness of using SQ3R strategy in teaching Hadith and Islamic Culture Course to develop first-year secondary female students' critical thinking skills. To achieve this aim, the study used the quasi-experimental approach. The study sample consisted of (47) first-year secondary female students, Baqaa Governorate, Department of Education in the Hail. They were distributed into two groups: experimental and control. The study used the critical thinking scale tool in Sharia Sciences. A teacher's guide and a student's book were prepared. The main results indicated that there is a statistically significant difference, at (0.05) level, between the mean scores of the experimental group students and the control group ones in the post-scale in developing thinking skills critic, in favor of the experimental group.

Keywords: *SQ3R Strategy, Hadith and Islamic Culture Course, Critical Thinking, Student.*

Introduction

The present era is characterized by rapid developments and changes in all areas of life. These developments and changes require a conscious human mind, keeping pace with current events. Allah has honored man with many blessings, the most important of which is the blessing of thinking, considered a great blessing that distinguishes man from other beings. "The development of thinking is one of the most important issues educational curricula pay attention in particular. Thinking is one of the basic skills that education seeks to develop for learners, so that they possess the appropriate mental abilities, to deal with their daily issues and problems of their societies. This stems from using logical methods to reach solutions and conclusions" (Al-Aklaby, 2014).

Many previous studies and research recommended the necessity of paying attention to developing students' critical thinking skills among. These skills are considered among the important educational requirements that should be developed for students at different educational stages in general, and secondary school students in particular. Abdelhamid (2015) and Milad et al. (2013) confirmed the need to develop critical thinking skills with different strategies and at different stages of education, especially for secondary school students. These skills "represents a turning point for students, as this stage is characterized by curiosity, self-confidence, and the ability to analyze and criticize things and make decisions. Critical thinking enhances the student's self-confidence and strengthens personality, helping them differentiate between things" (Akhras & Al-Sheikh, 2010). One of the most prominent teaching strategies is SQ3R strategy. It easy to

¹ Professor of Curriculum and Instruction, College of Education, Qassim University, Kingdom of Saudi Arabia, Qassim Region, Al-Mulida, a.algdoni@qu.edu.sa
² bedoor_k@hotmail.com

implement, not costly in terms of time, and is suitable for all academic subjects. (Drunk and Hassan, 2016, 291).

Research problem

Several studies have argued for using the SQ3R strategy in developing critical thinking skills. Hadi (2014) recommended using of the SQ3R strategy in developing critical thinking skills. Eid (2015) also recommended employing the SQ3R strategy at various academic levels. It is clear that studies have confirmed the importance of benefiting from modern strategies in teaching, and developing critical thinking skills for students. There is a need to benefit from modern strategies in developing critical thinking skills for students. Therefore, the current study aims to identify the effectiveness of using the SQ3R strategy in developing first-year secondary female students' critical thinking.

Research questions

The main question: What is the effectiveness of using the SQ3R strategy in developing critical thinking skills for first-year secondary female students?

Study objectives

The study aims to achieve the following objectives:

- Identifying the effectiveness of using the SQ3R strategy in developing the following skills for first-year secondary school female students: interpretation, identifying assumptions, evaluating evidence and arguments, deduction and conclusion.

Concept of critical thinking

There are many opinions and ideas, put forward by researchers, about the concept of critical thinking in various educational fields. It is appropriate to clarify the concept of critical thinking. The researcher will refer to some definitions. Watson and Glasser defined it as "examination of beliefs and suggestions adequately and effectively in light of the evidence that supports them, and the facts related to them, rather than jumping to conclusions." Beyer defined it as "the process of determining the reliability of information, or given knowledge, specifying its value, and accuracy." Sternberg defined it as "a set of mental, strategic and representational processes that people use to solve problems, make decisions, and learn new concepts." Moss and Koziol defined it as "a dynamic process of questioning and reasoning. It is an active investigation of knowledge rather than a passive gathering of it. It asks about definitions, evidence, actions and beliefs. What is it? What was it? What is it likely to be?" (Ali, 2009). Joseph (2016) defined it as "a conscious intellectual process that includes, in an active and effective manner, the conceptualization, application, analysis, synthesis, or evaluation of data collected or resulting from observation, experience, reflection, thinking, or communication, with the aim of guiding beliefs or actions."

Therefore, it becomes clear that definitions of critical thinking vary. They range from considering it as mental process aimed at evaluation, to reflections to achieve critical goals, and a purposeful mental activity based on logic, analysis and inference.

Therefore, critical thinking can be defined as a type of organized thinking that aims to control the learner' mental processes, consisting of many skills such as interpretation, identifying assumptions, evaluation of evidence and arguments, deduction, and conclusion, to take correct decisions in various situations.

SQ3R Strategy

The strategy (SQ3R) is one of the strategies that are based on interaction. It is characterized by focusing on deep thinking in the reading material. It was initially put forward by Francis Robinson 1940s. It is one of the metacognitive strategies called the five-step strategy (SQ3R). It was developed by Francis Robinson in 1946. It is also called Robinson Strategy (Masev, 1998, 79).

SQ3R Strategy Concept

Bahloul, (2003) defined it as "one of the most important metacognitive strategies in teaching reading. It leads readers to a set of specific precise steps through which students interact with the information of the readable text, resulting in the achievement of high levels of understanding."

Relationship between SQ3R strategy and critical thinking

It is noted that there is a link between thinking and the process of reading comprehension. Reading comprehension cannot be achieved except through thinking. Most of reading comprehension processes depend on higher thinking skills, such as analysis, syntax, evaluation, and other processes based on creative and critical thinking. Hence, the extent of convergence appears between thinking as a process and reading comprehension as a process as well (Obeid, 2009).

The SQ3R strategy also helps to practice critical thinking, as it provides the opportunity for students to read, analyze, interpret, summarize, question and reconsider things. The student acquires a set of skills, including analysis, induction, deduction and passing judgments.

Previous studies

Al-Ghadoni (2013) dealt with the effectiveness of blended e-learning in developing critical thinking in the Hadith Course for secondary school students. The researcher used the quasi-experimental method. The study population consisted of all secondary school students, based on credits system, in Buraidah, for the 1432-1433 academic year. The sample consisted of (42) students, in a simple random method. The study used a content analysis form and a critical thinking scale prepared by the researcher. The main results of the study indicated that statistical significance, at the (0.01) level, about the effectiveness of the proposed program in developing students' critical thinking skills except for the skills: induction and conclusion.

Al-Khawaldeh (2016) also investigated the effect of teaching using the multimedia strategy on achievement and developing critical thinking skills for tenth grade students in the field of education in Amman II, Hashemite Kingdom of Jordan. To achieve the objectives of the study, a teaching program was built using a multimedia strategy. An achievement test in Islamic education and a Torrance test for creative thinking were used. The study sample consisted of (62) students, intentionally selected and distributed among two study divisions. One of them was randomly selected as a control group, which numbered (34) students, taught in the usual way. The other experimental numbered (28) students, studied using the media strategy. The results of the study showed the outperformance of the experimental group that studied the multimedia strategy in achievement and critical thinking over the control group. In light of these results, the study recommended the necessity of training teachers in using the multimedia strategy in Islamic education.

Prasutiyo (2014) aimed to improve the skill of eighth grade students using the SQ3R method. The study used the observation and interview tools with students and participants. The study used quantitative data from the pre-post-test scores. The results showed that the application of the SQ3R strategy is effective in improving students' reading skill. Bulut (2017) dealt with improving the reading comprehension skills of fourth graders, using the SQ3R strategy as a reading comprehension strategy. To achieve this goal, the study used this strategy to improve the reading skills of seven fourth-grade students, having problem in these reading comprehension skills. The study used the following tools: a test, an interview and observation. The results indicated that the

reading comprehension program based on SQ3R increased students' reading comprehension level. It also enhanced their prediction skill.

Methodology

To achieve the objectives of the study, the quasi-experimental approach was used with the design of the control and experimental groups.

Study population

The population of the current study consisted of female students of the first secondary grade school, credits system, in government schools for girls, Supervision Office, Baqaa Governorate, Department of Education in Hail, numbered (1027) female students studying in ten schools.

Equivalent study groups

To verify the equivalence of the two study groups in the critical thinking skills scale, the Independent-Samples T-test was used. The results are as shown in Table 1:

Table 1: Results of the Independent Samples T-test, indicating the differences between the scores of the students of the experimental and control groups in the pre-scale of the critical thinking skills

Skill	Experimenta	Control	t-value	Degree of	Significance		
	l group	group	Arithmetic	freedom			
	Arithmetic	Standard	Arithmetic	Standard			
	mean	deviation	mean	deviation			
Interpretation	4.12	1.666	3.55	1.471	1.245	45	0.219
Identifying assumptions	3.64	1.551	2.95	1.463	1.552	45	0.128
Evaluating arguments and evidence	2.96	1.620	3.23	1.660	-0.558	45	0.580
Deduction	3.32	1.345	3.68	1.287	-0.939	45	0.353
Conclusion	3.08	1.498	3.36	1.677	-0.612	45	0.543
The scale as a whole	17.12	3.492	16.77	3.294	0.349	45	0.728

Table 2 shows that the values of significance levels were greater than (0.05) in all critical thinking skills. This indicates that there are no statistically significant differences between the scores of the students of the experimental and control groups in the pre-scale. This indicates the equivalence of the two study groups in the critical thinking skills before using the SQ3R strategy in teaching Hadith and Islamic Culture Course for first-year secondary school female students.

Study tool

The current study used the Critical Thinking Scale in Sharia Sciences prepared by (Al-Ghodouni 2013). Then, the researcher re-measured its internal validity and reliability for the purposes of the current study.

Study results

The results of the field study indicated the effectiveness of using the SQ3R strategy in developing critical thinking skills for secondary school students as follows:

- There is a statistically significant difference, at (0.05) level, between the mean scores of the experimental group and the control group students in the post-application

regarding developing critical thinking skills, in favor of the experimental group in all five thinking skills.

- The use of the SQ3R strategy has a significant impact on developing critical thinking skills

Acknowledgements

Researchers would like to thank the Deanship of Scientific Research, Qassim University for funding publication of this project

References

- Abdel Hamid, A. A. (2015). The effectiveness of the de Bono Program for teaching thinking (CORT3) in developing some critical thinking skills for gifted students at the secondary stage. *Journal of Special Education, Zagazig University, Faculty of Disability and Rehabilitation Sciences - Educational, Psychological and Environmental Information Center*, 11, 56-93.
- Akhras, N. & Sheikh, T. (2010). *Developmental psychology*. Riyadh: Rushd Bookshop.
- Al-Aklabi, M. D. (2008). The effectiveness of the cooperative learning strategy in teaching Hadith and Islamic culture in academic achievement and critical thinking skills for first year secondary students. Unpublished PhD thesis, College of Education, Umm Al-Qura University.
- Al-Anazi, F. M. (2013). The effectiveness of using the constructivist learning model in developing critical thinking skills and academic achievement in Fiqh course among third-grade intermediate students. Unpublished PhD thesis, College of Education, Umm Al-Qura University.
- Al-Atoum, A.; Al-Jarrah, A & Bishara, M. (1427 AH). *Developing thinking skills, theoretical models and practical applications*. Amman: Dar Al Masirah.
- Al-Ghadouni, A. M. (2013). The effectiveness of a proposed program based on blended e-learning in developing critical thinking skills for secondary school students in Hadith Course. Unpublished PhD thesis, College of Education, Imam Muhammad bin Saud University.
- Ali, S. M. (2007). The effectiveness of using the (SQ3R) strategy in developing achievement and creative thinking in science for middle school students in Saudi Arabia. *Faculty of Education - Zagazig University*, 70, 14-28.
- Bulut, A. (2017). Improving 4th-grade primary school students' reading comprehension skills. *Universal Journal of Educational Research*, 5(1), 23-30.
- Eid, Y. Y. A. (2015). The effect of the five-step strategy (SQ3R) for teaching reading on reading comprehension and improving higher-order thinking skills for seventh grade students. Unpublished Master's Thesis, Hashemite University, Jordan.
- Hadi, M. M. (2014). The effect of the SQ3R strategy on the achievement of fifth grade literary students in Natural Geography, Iraq, *Journal of the College of Education*.
- Kelly, S. (2011). Hands-on reciprocal teaching: comprehension technique. *Reading Teacher*, 64(8), 620-625.
- Khawaldeh, N. A. (2015). Identifying the effect of teaching using the multimedia strategy on achievement and developing critical thinking skills for tenth grade students in Islamic education subject. *Dirasat Journal of Educational Sciences*, 42, (4).
- Milad, K. A.; Al-Tabib, M. A.; Ali, J. M.; Afifi, S. A. A. & Al-Kayyal, M. A. A. (2013). Developing dimensions of critical thinking and its relationship to qualitative achievement among secondary school students in Libya: An empirical study. *Journal of the Faculty of Education: Ain Shams University - Faculty of Education*, 37(1), 861-880.
- Obaid, W. (2009). *Teaching and learning strategies in the context of a culture of quality*. Amman: Dar Al Masirah.
- Prasutiyo, A. R. (2014). Improving the Eighth Grade Students' Reading Skill Through SQ3R Technique in SMPN 1 JOGONALAN in the Academic Year of 2013/2014. A thesis, Faculty of Languages and Arts, State University of Yogyakarta, Indonesia. Retrieved from:

1329 *The Effectiveness of Using SQ3R Strategy in Developing First-Year Secondary Female Students' Critical Thinking Skills*

Sakran, N. K. & Abbas, L. H. (2016). The effect of using the strategy (SQ3R) on the achievement of students of the first stage of the faculties of education in foundations of education course. *Al-Ustath Journal - Iraq*, 218, 289-310.