

The Effect of Using the Constructivist Learning Strategy developing some of Reading and Thinking Skills of First Year General Secondary Stage Students

Prof. Dr. Abdelrahman Kamel Abdelrahman Mahmoud

Prof. of Curricula and Methodology (Arabic Major),
Faculty of Education, Fayoum University, Egypt

Copyright © 2014 ISSR Journals. This is an open access article distributed under the **Creative Commons Attribution License**, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT: The study attempts to answer the following major question: What is the effect of using the strategy of constructive learning on teaching reading to develop some basic reading and thinking skills among first secondary grade students?

KEYWORDS: Learning Strategy, Thinking Skills, Secondary Stage, Students.

THE PROBLEM OF THE STUDY

The study attempts to answer the following major question:

What is the effect of using the strategy of constructive learning on teaching reading to develop some basic reading and thinking skills among first secondary grade students?

Then, it answers a number of sub-questions as follows:

- 1- What are the reading skills suitable for first secondary grade students?
- 2- What are the thinking skills suitable for first secondary grade students?
- 3- How to set up a suggested unit in reading to develop reading and thinking skills by using the strategy of constructive learning among first secondary grade students?
- 4- What is the effect of teaching the suggested unit by using the strategy of constructive learning on developing some reading and thinking skills among first secondary grade students?

The second chapter discusses the previous Arabic and English studies relevant to the topic of the present study. The third chapter handles the strategy of constructive learning. The fourth chapter is divided into two sections: The first section discusses the reading concept while the second discusses the thinking concept.

The experimental framework of the study:

The researcher developed an experimental framework represented in the sample, the tools, and the variables.

Chapter six presents the results of the questionnaire and the test relevant to reading and thinking skills. The study revealed the following results:

- 1 - The reading and thinking skills appropriate for first secondary grade students.
- 2 - The experimental group outperformed the control group in the post-test of reading and thinking skills.

The following table shows the results of the post-test for the two experimental and control groups:

Table (1)

The means, standard deviations, T values, and their significance of the experimental and control groups in reading and thinking skills in both pre- and post-tests:

Firstly: Reading Skills

skill	Test type	Control group group		Experimental group		(T) Value	Significance
		Mean	Deviation	Mean	Deviation		
Understanding	Pre-test	1.84	1.88	0.795	0.775	(0.236)	Insignificant
	Post-test	2.92	0.978	3.5	0.743	3.09	Statistically insignificant
Criticism	Pre-test	2.02	0.834	2.01	0.809	(0.225)	Insignificant
	Post-test	2.85	0.861	4.29	0.990	4.83	Statistically insignificant
Explanation	Pre-test	1.90	0.731	1.90	0.684	(0.448)	Insignificant
	Post-test	2.75	0.978	3.36	0.765	3.46	Statistically insignificant
Summary	Pre-test	1.25	0.687	1.18	0.791	(0.530)	Insignificant
	Post-test	0.408	0.619	2.79	2.363	3.85	Statistically insignificant
Evaluation	Pre-test	1.086	0.771	1.18	0.791	(0.580)	Insignificant
	Post-test	2.67	0.892	3.25	0.734	5.18	Statistically insignificant

Secondly: Thinking Skills

Observation	Pre-test	1.78	0.702	1.76	0.669	(0.164)	Insignificant
	Post-test	3.0	0.913	3.71	0.727	4.19	Statistically insignificant
Comparison	Pre-test	1.8	0.714	1.75	0.673	(0.334)	Insignificant
	Post-test	2.68	0.883	3.25	0.751	4.70	Statistically insignificant
Classification	Pre-test	1.71	0.669	1.76	0.660	(0.349)	Insignificant
	Post-test	2.8	0.883	3.73	0.764	5.61	Statistically insignificant
Inference	Pre-test	1.8	0.850	1.75	0.781	(0.284)	Insignificant
	Post-test	3.1	0.885	3.7	0.780	3.33	Statistically insignificant
Analysis	Pre-test	1.82	0.650	1.86	0.681	(0.287)	Insignificant
	Post-test	0.284	0.925	3.69	0.724	4.74	Statistically insignificant

Firstly, table (1) shows that there are no statistically significant differences between the experimental and control groups in reading and thinking skills in the pre-test. Secondly, there are statistically significant differences between the means of the students' marks in the experimental group in pre- and post- tests in both reading and thinking skills for the post test.

Table (2) measures the effect size of the strategy of constructive learning on some reading and thinking skills.

Statistics	(T) Value	impact factor	Statistical Significance
experimental group (N) = 44	4.8	1.036	Highly significant: More than 0.8
control group (N) = 44			

Table 2 shows that the magnitude of the impact has reached (1.00). This means that the strategy of constructive learning has a significant impact on teaching and developing reading and thinking skills among first secondary grade students.

It also shows that the strategy of constructive learning has a significant impact on developing reading and thinking skills because the value of D is more than 0.8. In general, the results of the study indicate that reading and thinking skills should be developed.

- Recommendations for further study:

A. Depending on the present results, the researcher provides a number of recommendations:

- Preparing various samples of curricula and teaching methods in accordance with the strategy of constructive learning through creating real problems and asking the students to find solutions to these problems.

- Emphasizing on teaching methods that focus on the meaningful learning such as constructive learning that allows students to learn new concepts based on their cognitive information.

- Preparing courses and training programs for teachers, mentors, and students (teachers) in the faculties of education about how to use and employ the strategy of constructive learning in the teaching-learning process in order to enable them to master the skills of reading and thinking. In addition, the counselors should guide teachers to develop the reading and thinking skills of their students.

- Focusing on using, through this strategy, the different means of evaluation so that the evaluation becomes continuous or real and is not represented in the final test.

- The Arabic language teacher should use all the branches of the subject to develop the skills of reading and thinking among his/her students. In addition to reading, literature is considered as a rich area to practice the skills of reading and thinking. Essay is another area for practice because it reflects social issues, so students can apply what they have learned.

- Providing and designing many programs, educational activities, and different means to integrate both reading and thinking skills in the curricula.

- Preparing a teacher's guide that enables the teacher to develop reading and thinking skills among students within the stages of general education. The teacher's guide of the present study can be used to prepare the new one.

B - The Suggested Studies:

In the light of the present findings and the previous recommendations, the researcher suggests conducting research and future studies, focusing on the issue of the present study:

- The impact of using the strategy of constructive learning on the development of creative thinking skills in the subjects of poetic writings.
- The impact of integrating some constructive learning strategies in the teaching of different syntactic topics.
- The impact of using the strategy of constructive learning on the development of some comprehension skills of literary texts among first secondary grade students.
- The impact of using the strategy of constructive learning on the development of higher-order thinking skills in the teaching of rhetoric among first secondary grade students.
- The impact of early reading on the development of some reading and thinking skills among first secondary grade students.
- The impact of free reading on the development of some silent reading and thinking skills among first secondary grade students.
- The impact of using the strategy of constructive learning on other variables like creative thinking, scientific thinking, and reasoning among first secondary grade students.
- The impact of using the strategy of constructive learning on changing the teaching style of the Islamic curriculum to first secondary grade students.

REFERENCES

- [1] Angeli, Charoula , Valanides Nicos : Instructional Effects on Critical Thinking : Perfmance on Ill-Defined Issues, Journal Articles, Learning and Instruction ,V19n4,p3 22-334, Aug,2009.
- [2] <http://www.eric.ed.gov.eric.Ej833378>.
- [3] Appleton, K :Analysis and Description of Students Learning during Science Classes using constructivist Based Model, Journal of Research in Science Teaching, Vol. 34, No. 3(1997).
- [4] Arthur Costa : Components of a well Developed Thinking Skills Program, U.S.A. , New Horizons for learning : Teaching and Learning Strategies , October 2002. Available at: <http://www.Newhorizons.org/html> .
- [5] Billings, Russell Lauren: Assessment of the learning cycle and inquiry-based learning in high school physics-education. MS. Michigan state University. (2001) MAI 40/04, p 840.
- [6] Brooks, J. and Brooks, M. In Search of Understanding: the Case for Constructivist classroom. Alexandria: Association for Supervision and Curriculum Development, 1993.
- [7] Brown, B. L . " Applying Constructivism in Vocational and Career Education". Eric Clearing house on Adult, Career and Vocational Education, Columbus, OH, 1998. p p31-69

- [8] Cho, J.: "The development of an alternative in-service programme for Korean science teachers with an emphasis on science-technology-society. *International Journal of science Education*, Vol. 24, No 10 .p p 1021-1035. , 2002.
- [9] Colburn, Alan: "Constructivism and Science Teaching", Fastback. Phi Delta Kappa Educational Foundation, Bloomington, IN, 1998.
- [10] House on Adult, Career and Vocational Education, Columbus, OH,.1998,pp,33-36.
- [11] Crawford & Patricia & EN. : "Focus on Elementary (Ages 7-10) Quarterly News letter for the Education Elementary, v 12 , pp 1- 4 Pub type : Available at: [http://www.eric.ed.gov\(ERIC.ed4555912\)community](http://www.eric.ed.gov(ERIC.ed4555912)community) "Focus
- [12] Elvan Akar : "Effectiveness of 5E Learning Cycle Model on Students, Understanding of Acid-Base Concepts, master of science unpublished, Middle East Technical University.2005.
- [13] Fisher: "Head Start: How To Develop your Child Mind".1999, Available at: <http://www.teachingthinking.net.thinkingskills.html>
- [14] Glassersfeld, V : *Constructivism as a Scientific Method*. Oxford: Pergamum Press, 1987.p p33-60.
- [15] Heinz & Peter J: "Towards Enhanced Second Language Reading Comprehension Assessment: Journal Article Reports Evaluative, v16, p97-124, oct2004. Available at: <http://www.eric.ed.gov> (ERIC.ed689118)
- [16] Lord . T . R . : A comparison between traditional and constructivist teaching in environmental science . *Journal of Education*, (1999), 30
- [17] *International Dictionary of Education*. New York and London : Kogan Page , 1977.
- [18] Perkins , D . : "The Many Faces of Constructivism ,*Educational leadership* (1999). V:57,p p6-12.
- [19] Philippi & Klotuida: *Mandating a Constructivist Approach to Early Elementary Literacy Instruction: Intend and Unintended Consequences in One School*, : Reports – Research, Speeches – Meeting Papers , Unpublished PHD. Thesis the University of Mississippi,1998. Available at: [http://www.eric.ed.gov\(ERIC,ed420424](http://www.eric.ed.gov(ERIC,ed420424)
- [20] Saunders W.L.: " The Constructivist perspective: Implications and teaching strategies for science". *School Science and Mathematics*, Vol. 92, (3) (1992) .
- [21] Sharon and Enger, Sandra , *Exploring Space: An Evaluative Portrait of Alabama Teachers*. Paper Presented at the Annual Meeting of Mid-south Educational Research, New Orleans , LA , November 4-6, 1998. 33-
- [22] Simister Catherine Jane : "How to teach thinking and learning Skills :Practical Programming the whole school, publish Paul Chapman, London 2007, Available at: <http://www.eric.ed.gov,ED497252>
- [23] Steve Gardiner : *Ten Minutes a Day for Silent Reading* , *Education Leadership* , And *Silent Reading Program* , Jones County High School . October, 2001. Available at: (<http://www.Jones.k12.ga.us/jchs/s9LENT%20READING.html>), 15/07/2003.
- [24] *Teaching Skills and Abilities*. Available at: (<http://www.sasked.gov.sk.ca/evergreen/history30/his30ted.html>),30/07/2
- [25] Wheatley, G. H : *Constructivism Perspectives on Science and mathematics*, *Science Education*, Vol. 75, No. 1. (1991) ; pp. 9-21.
- [26] Yager, R.: "The constructivist Learning Model Towards Real reform in Science Education". *The Science Teacher*, September, Harwell.