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: (Landa,1983)

(Curio and Schwarts, 1998)

Conceptual/ Meaningful /
Procedural/ / Knowledge
.Mechanical Knowledge

Images

Propositions

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(Landa, 1983: 175)

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Motor/

Material Operations

Mental/ Cognitive Operations

.Algorithmic Prescriptions or Algorithm

(Landa, 1983: 175)

" Heuristic Processes

. (Landa, 1983)

(Landa, 1983)

.Heuristic Directions

(Landa, 1983)

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The Algo-Heuristic

Theory of Instruction

.Landamatics

(Reigeluth, 1983)

.Structural Learning Theory

(Reigeluth, 1983)

(Curio and Schwartz, 1998)

(Landa, 1983)

:
(Kinchin and Novak Meaningful Learning Hay, 2000)

(Scandora, 1983) (Romance and Viltale, 1999)

(Reigeluth, 1983) Conceptual Knowledge

Atomic Components

Rules

– Organizational Structures

(Eitel, Kanz and Hortig, 2000)

(Guastello, 2000; Smith and Dwyer, 1995; Pinto and Zeits, 1997) (Reigeluth, 1983)

(Okebukola, 1992) Elementary Cognitive Operations

Snowball Method

(Romance

and Viltale, 1999)

(Kinchin and Hay, 2000)

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(Curio and Schwartz, 1998)

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(Reigeluth, 1983)

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(Merrill, 1983; Merrill and

Tennyson, 1977)

Inquisitory Method

Expository Method

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 . (Kinchin ,
 1984) 2000; Dorough and Rye, 1997)
 1985 1983 1982 (Pinto and (Lawless, 1998)
 .(1990 .Zeit, 1997)
 . (McAleese,
 .(1985) .1999)
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) (West, Park, Pomeroy and Sandoval, 2002)
 .(1988 1980 1983 1987
 . 1995 1998)
 Tekkaya, 2003 2000 1996
 (Elheleu, 1997; Guastello, 2000 2003
 (Ritchie and Volkl, 2000)
) (Smith and
 .(1983 1991 .2003 Dwyer, 1995)
 .(2002) -
 .(2004)
 (Okebukola,
 () (1989) (Barenholz and 1992)
 .(2001) Tamir, 1992)

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One-Way Analysis of Variance (ANOVA)

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Quasi-Experimental

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Design

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Prescriptions or Algorithms

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(Merrill, 1983)
Component Display Theory

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:(Landa, 1983)

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Barenholz, H. and Tamir, P. 1992. A Comprehensive Use of Concept Mapping in Design Instruction and Assessment, <i>Research in Science and Technological Education</i> , 10 (1): 37-52.	1988
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Algorithms as a Method for Teaching Fifth Graders the Rules of Recitation “Ahkam Al-Tajweed”

*Mohammad R. Rababah**

ABSTRACT

This study aimed at investigating the effect of algorithms as a method for teaching fifth graders the rules of recitation “Ahkam Al-Tajweed” by comparing its effect with that of the expository and inquisitory teaching methods. A purposive sample of (96) male students from a fifth class in a basic school were selected and three equivalent groups were formed. Every group was randomly assigned to one of the three teaching methods and taught by using its assigned method for three weeks.

The researcher developed a 25-item multiple choice achievement test. The validity of the test was assured by a panel of judges, whereas KR-20 was used to estimate the reliability co-efficient, which was found to be (0.91). One-way analysis of variance was used to analyze the data. The analysis indicated statistically differences ($p < 0.05$) among the groups, which could be attributed to the kind of teaching method. Newman-Keuls test was used as a multiple comparison test. The test revealed that:

The means of the algorithms (13.71) and expository groups (11.94) were greater than ($p < 0.05$) the mean of the inquisitory group (9.52).

There were no statistically differences ($p > 0.05$) between the means of the expository and algorithms groups. Using algorithms as a teaching method, and training Islamic education teachers to use it were the main recommendations of this study.

KEYWORDS: Teaching Methods, Algorithms, Teaching Strategies, Expository Method, Inquisitory Method.

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