

English Abstracts of Papers in Arabic

The Readability of the Fifth Grade Mathematics Textbooks in Jordan

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The purpose of this study was to investigate the readability of the fifth grade mathematics textbook in Jordan. The questions of the study were: What is the level of the readability of fifth grade math textbook in Jordan? Are there any significant differences in the students' achievement on the Cloze Test due to the level of the test itself? Are there any significant differences in the students' achievement on the Cloze Test between the males and females? The sample of the study consisted of 78 males and 61 females in the fifth grade in primary level schools in Northern Jordan during the academic year 1999/2000.

The researchers used the Cloze Test in three levels (C1, C2, C3) to measure the level of the readability of the textbook. C1, C2, C3 were three tests each one based on one of the lessons in Geometry that consisted items and sentences with omitting every fifth word, every seventh word, and every ninth word in C1, C2, C3, respectively.

The results of the study concluded that the level of the readability was very low in general and it increases when the number of the omitted words decreases. The researchers concluded that there were significant differences between the three tests C1, C2, C3 in the students' achievement in the test itself. They also concluded that there were significant differences between the males and females in the students' achievement in the test itself.

The Unification March for Mathematics Curriculum and its Development in the Arab Gulf Countries, Where Will It Go?

Dr. Nassra Reda H.B. Banai

The Arab countries, specifically the Arab Gulf countries face speedy and consecutive alterations which create challenges that threaten their safety and security. The priorities situation from future scientific view is one of the biggest issues that disturb policy makers in these countries, and one of these priorities is education. In addition, the discussion of priorities for improving education between government, leaders, researchers and others, is a necessary and absolute matter, however, education works as a complicated combination of entries, experience and experiments. We could consider education as a sharing work and outcome effort, and adapt from it by searching for solution and convenient systems that adjust to the general development, according to the situation of the nation. Since a quarter century ago, the Arab Gulf countries started their experience by mutual and cooperative work, in which education took their major attention, specially in the issues that unifies the general goals of education and the development of the curricula. The focus on mathematics and science is considered as the major issue in developing the curricula and unifying them. On the other hand, the view of the Arab Gulf countries for aspects of practice varies from what was recently addressed by the march for unifying the mathematics curricula in three educational stages. The aims of the research are:

1- Attract the light on the unification march of the curricula and its development in the Arab Gulf countries:

One. The goal of unification and development.

Two. The start of unification and development.

Three. The movement of unification and development.

Four. The characteristics and constituents of unification and development.

Five. Steps of development and unification of stages that has been done so far.

- 2- Study the present and future attitudes to develop curricula in the members of the Arab Gulf countries, specially the ones related to the march of unification and development of mathematics curriculum with reliance on documentation and available studies.
- 3- Search for effective mode and convenient standard that could be used to measure the educational system at any country, from the strategies that are made for the unification and development of mathematics curriculum in the Arab Gulf countries, by defining the issues and chapters of this standard, and make sure of their validity and reliability.
- 4- Statement of procedures that should be considered regarding the use of this standard is to recognize the advantages of the march for advise, development and to improve. Also, to discover the disadvantages that affect Arab Gulf countries to benefit from the policies that are done for this shared work
- 5- Come out to several conclusions and recommendations concerning the march of unification and development of mathematics curriculum at the Arab Gulf countries.

Analysis of Students' Errors in Mathematics Problem Solving

Dr. Khattab Abu Libdeh

The purpose of the study was to identify students' errors and misconceptions in math problem solving. The sample consisted of (5300) Jordanian students at grade 8. Students' responses to 24 free response items of math achievement test of the Third International Mathematics and Science Study Repeat(TIMSS-R) , were analyzed. Four types of students' errors and misconceptions were identified: specific errors, undetermined errors, no attempt, and not reached items. The findings revealed that the average percent of students' responses which include specific errors, undetermined errors, no attempt, and not reached items were (14%), (49%), (2%), (15%) respectively. Students' performance varied according to the content of the problem. The average percent correct of students' responses were:

Fraction & Number Sense 26%

Measurement 23%

Proportionality 14%

Algebra 21%

Data Representation Analysis and probability 25%

The study recommended that teachers should use diagnostic testing to identify students' errors and misconceptions, to help them in the planning for effective teaching and implementing appropriate teaching methods that will minimize students' errors and misconceptions in mathematics problem solving.