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ASSESSING TEACHER'S PERFORMANCE IN THE LIGHT USING TECHNOLOGICAL TOOLS IN TEACHING AND ITS RELATIONSHIP TO THE STUDENT'S PERFORMANCE AND THEIR ATTITUDES TOWARD MATHEMATICS EDUCATION

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ABSTRACT: The main aim of this research was assessing Teacher's Performance in the light using Technological tools in teaching mathematics. To achieve this aim, literature and previous studies were analyzed to characterize the variables of the study, and building the tools of this search, that identified with the four dimensions: (Technological tools support the educational environment in a mathematics class- Technological tools in teaching plan and applying- evaluating the performance of students – reflective teaching and professional development for teachers of mathematics). also , the mathematics test and scale to assess the student's performance and their attitudes toward mathematics Education.

The research was based on descriptive analytical method, the sample consisted of (30) teachers of mathematics in primary school and their students (n=480) from Tabuk city schools, and after field Applying procedures, the main finding was 60% of math teachers have not perspective to use the technological in supporting educational environment in a mathematics class the technological tools to encourage the learner to interact positively, and using technological tools in the planning and implementation of teaching, evaluating the performance of the students, and employ them in order to self-professional development for teachers of mathematics. also There is a direct correlation between the use of positive mathematics teachers for the technological tools and the development of students' performance and positive attitudes towards mathematics. The recommendations of study are building training programs to employ technological tools in support of learning environment school mathematics and improve their performance teaching through the development of positive attitudes towards their relevance and effectiveness in mathematics.

Keywords: teaching mathematics, Teacher's Performance.

INTRODUCTION

Kingdom of Saudi Arabia developed the curriculum in the light of both national and international standards . The main aims were: developing how the students build the knowledge, developing thinking process, and improving the smart behavior of the students. The educational system tried to solve a lot of problems that relatee to the vision, mission, and the aims of learning. also the currculum of mathematics education depends on using the technological tools in mathematics education. It is very necessary to apply the technological tools im math classes

On the other hand, in the last 20 years, a lot of researches presented the main ideas about using technological tools. it is relted to developing mathematical concepts, mastering mathematical skills, and discovering many mathematical genrlizations. (Hartsell , et.al, 2009). It is considered to be very essential for the students in the 21st century. technological tools is educational frameworks that helps in improving the mathematics education aims. it encourage the students, and math teachers through communicating using alternative ways. (Beyerbach, Walsh, 2001).

Alot of finding of studies refare to using technological tools in mathematics class improve student's performance in mathematics , for example solving problem skills, and word problem solving. it helps the students to make

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mathematics representations. Also, the to using technological tools develop their attitudes toward mathematics Education(Naida, 2003).

A good starting point when using technological tools into a school is introducing the technological tools to teachers mathematics. The experience will be more effective for students if teachers develop a deep understanding and appreciation of using technological tools before they present them to the students in class. They may have numerous initial questions, for examples: What do these using technological tools in mathematics classes? , How will the teachers work with the students to develop mathematical knowledge using technological tools?, How can the teachers put the model into practice? And What is the role of the teachers in using technological tools?(Yildirim, 2000).

In addition, classroom environment plays the main role in achieving the objectives. It provides many opportunities to influence behavior, cognitive behavior, learning, and growth (Friedman, 1999). about using technological tools on the classroom environment providing the students with a good learning environment and developing the math objectives. (Norton, et.al, 2000)

Finally, Developing and assessing the mathematics education aims are the main tasks of the teachers. For that reason, a lot of researchers have been investigating the teaching procedures in order to develop them. It is very important to be able to observe the teachers and encourage them to be reflective and help them improve their performance in math class.

Research questions: This research investigates the following question:

- To what extent mathematics teachers master using technological tools in certain fields of the teaching and learning process; i.e. (teaching plan, building the knowledge, group management, assessment, and extra activities)?
- what the relationship between Teacher's Performance in the light using Technological tools and the student's performance and their attitudes toward mathematics Education?

METHODS

Instrumentation : To achieve the aims of this research two Instruments were used. To assess the teaching performance , questionnair was prepared. It is related to the assessment of the teaching performance of learning habits of mind. It included 5 dimensions of teaching: (teaching plan, building the knowledge , groups management, assessment , extra activities) also the questionnair was prepared to assess the students attitude.

Search sample: The sample of this search was selected from the original community at Tabuk city. it included 30 mathematics teachers and thire students (480) from primary, prep., scoubdary schools.

The instrument were applied by the researcher and mathematics supervioser at the school. they help the teachers tthrough applying the atitude scale . the researchers met the teachers to apply the questionnaire that related to measuring the atitude. The meeting with the teachers was meant to discuss and interpret a lot of question about the terms and concepts that were included in the questionnaire. Through that open discussion, we noticed that there were a lot of generalizations, and that most of the teachers did not have enough experience regarding the concepts .

RESULTS and FINDINGS

To answer the first question: extent mathematics teachers master using technological tools in certain fields of the teaching and learning process; i.e. (teaching plan, building the knowledge, group management, assessment, and extra activities)?

Through using SPSS, the frequency, percentage and the mean were calculated. The results are clearly stated in the following table:

Table (1) The Frequency, Percentage And The Mean Of Using Technological Tools indicators

Teaching Performance	Distribution								The mean
	Exemplary (4)		Accomplished (3)		Developing (2)		Beginning (1)		
	frequency	Percent %	frequency	Percent %	frequency	Percent %	frequency	Percent %	
Using technological tools as a framework of teaching	2	6,6	6	20	10	31,7	12	40	1,97
Write the aims of the lesson in relation technological tools	2	6,6	5	16,7	9	30	14	46,7	1,73
Using technological tools to building mathematical knowledge	2	6,6	6	20	12	40	10	33,4	1,95
Design the cooperative learning activities	4	13,3	8	26,7	8	26,7	10	33,3	2,52
dependen on Using technological tools	5	16,7	9	30	8	26,7	8	26,7	2,38
Organize the content gradually									
Connect between conceptual and procedural knowledge using Using technological tools	8	26,6	16	53,5	5	16,7	1	3,3	3,07
Use the technological tools in problem solving strategies	4	13,3	6	20	10	33,3	10	33,3	2,13
Encourage the discussion among the students	3	10	7	28,3	12	40	8	26,7	2,15
Use of appropriate equipment in class	2	6,7	13	43,3	9	30	6	20	2,37
Use the technological tools to enhance the students in developing math thinking	3	10	6	20	9	30	12	40	1,98
create a class environment Using technological tools is main part in work	1	3,3	8	26,6	16	53,3	5	16,7	2,15
Encourage students to use the environmental tools	2	6,7	10	33,3	12	40	6	20	2,27
Connect between family and school to enhance students using technological tools	1	3,3	3	10	20	66,6	6	20	2,02
Use the technological tools to communicate with students with homework activities	6	20	16	53,3	9	30	0	0	3,03
Use the technological tools in developing thinking	8	13,3	14	23,3	30	50	8	13,3	2,37
Design the different activities, for examples: search, use library, math site, ...e-mail, facebook,...	4	6,7	13	21,6	25	41,6	18	30	2,05
The mean of total									2,26

Through the table (1) we can observe that the mean total of the checklist is (2.26). It is less than the mastering value (≥ 3.2). Also, the mean of all of the items are less than the mastering value. Through the observation, the researchers noticed that most of the teachers of the sample do not have clear perspective of using the technological tools of teaching mathematics. In addition, the range of means of the teaching indicators is (1.73 and 3.07). Most of the indicators are not close to the mastering value (3.2). There are, however, some indicators which are close to the mastering value, for example: Connect between conceptual and procedural knowledge using technological tools (3.07), Use the technological tools to communicate with students with homework activities (3.03), Use the technological tools to communicate with students with homework activities (3.03). Help the students to apply the pervious experiences (3.02). Most of the pervious indicators refer to general teaching procedures, and did not relate directly to using technological tools.

On the other hand, there are a lot of indicators that refer to a weakness in using technological tools for most of the sample. Most of those indicators are mainly related to the procedures for using technological tools, for example: Write the aims of the lesson in relation technological tools (1.73), Using technological tools to building mathematical knowledge (1.95), Using technological tools as a framework of teaching (1.97), Use the technological tools to enhance the students in developing math thinking (1.98). Finally, the researchers deduce that Most of the teachers did not

master the indicators of Using technological tools as a part of teaching performance that relate to: (teaching plan , building the knowledge , groups management, assessment , extra activities).

To answer the second question: what the relationship between Teacher's Performance in the light using Technological tools and the student's performance and their attitudes toward mathematics Education? Through using SPSS , the frequency , percentage and the mean were calculated .The results are detailed in the following table:

Table(2): The Frequency , Percentage And The Mean Of The Indicators Of 16 Habits Of Mind

	Accomplished		Developing		Beginning		Beginning		
	frequency	Percent %	frequency	Percent %	frequency	Percent %	frequency	Percent %	
I like the mathematics class	18	5	167	46.7	113	31.7	10	16.7	2.4
I attend in math class daily	24	6.7	71	20	157	43.3	18	30	2.03
I communicate with my teacher mathematically	30	8.3	83	23.3	211	58.3	6	10	2.3
Mathematics is fascinating and fun.	36	10	115	31.6	127	35	14	23.3	2.18
The feeling that I have toward mathematics is a good feeling.	30	8.3	66	18.3	117	31.7	25	41.7	1.93
Mathematics is something which I enjoy a great deal.	36	10	90	25	174	48.3	10	16.7	2.28
I help my partner to show their perspective in thinking.	30	8.3	54	15	89	25	157	51.7	1.8
Help the students to understand what the others say.	42	11.7	114	31.7	114	31.7	60	25	2.3
Ask the partner to explain their thoughts to understand mathematics concepts	36	10	168	46.3	113	31.7	43	11.7	2.55
Mathematics is a course in school which I have always enjoyed studying	24	6.7	102	28.3	169	46.7	65	18.3	2.23
I usually do my homework of mathematics	48	13.3	102	45	119	33.3	31	8.3	2.63
Mathematics topics are not related to my life.	24	6.7	54	15	96	26.7	186	51.7	1.93
I ask my teacher when faced with a task, a problem, or a question.	23	6.7	96	26.7	209	58.3	31	8.3	2.32
I like mathematics classes include the situation that makes me enthusiastic.	73	20	126	35	137	38.3	25	6.7	2.35
I use the previous knowledge in solving the problems related to the situation.	107	30	168	46.3	102	23.3	0	0	3.07
I work mathematically with enhancement activities continuous learning.	67	18.3	192	53.3	89	25	13	3.3	2.87
I consider the learning interests in mathematics class.	35	10	149	41.7	121	33.3	54	15	2.47
I make connection between family and school	37	10	83	23.3	109	30	22	36.7	2.07
Total									2,32

Through table (2) we can deduce that the mean total of the questionnaire is (2.32). It is less than the mastering value (≥ 3.2) . All the means' of all items are less than ($\leq 3,07$) and more than (≥ 1.8) . Through the observation, the researchers observed that most of the students of the sample do not have clear perspective about the mathematics education, its related to their life . they also do not have general perspective in developing their performance by using technological tools.

CONCLUSION

Using Technological tools is a main part in teaching mathematics. Through the results of this research , most of the teachers did not have clear and deep perspective about using Technological tools in teaching mathematics in general and its dimensions (teaching plan, building the knowledge, groups management, assessment, and extra activities). Most of them did not write lessons aims that are relative to using Technological tools, did not organize classes, did not design strategies that encourage the students to using Technological tools in mathematics representation. They, also, did not assess thire teaching performance in the light of using Technological tools . also , most of the teachers did not have clear and deep perspective of habits of mind in general as well as in detail . They did not have enough experiences that relate to the terms of habits of mind and how to develop them. also there are positive relationship between using Technological tools in teaching mathematics, and students performance and thire atitude toword mathematics.

RECOMMENDATIONS

Finally, The study found a set of recommendations the most important building training programs procedural to employ innovations of technology in support of learning environment school mathematics and improve their performance teaching through the development of positive attitudes towards their relevance and effectiveness in mathematics.

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