



The Attitude of Kindergarten Teachers towards Teaching Science and Math in English (Field Research)

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Abstract

This study aimed to explore the attitudes of kindergarten teachers towards teaching science and mathematics in English in Koya city for the academic year 2015-2016. It attempts to identify the attitudes of kindergarten teachers towards teaching science and mathematics in English according to some variables (age, monthly income, certification). The sample size consisted of 33 kindergarten teachers. The Instrument was developed by the researchers, later validated by specialists and experts. The reliability coefficients of the self-developed questionnaire were obtained from a Cronbach Alfa which was at level 0.83. The results revealed that the mathematics and science teachers in the kindergartens of Koya city have an attitude between neutral and negative (to a certain extent) towards the teaching of these subjects in English. It was also found that the youth teachers have more positive attitudes toward math and science teaching in English. Additionally, the degree of academic certificate category (bachelor) has a more positive attitude than the academic certificate categories (Intermediate) and (diploma).

Keywords: Attitude, Kindergarten teacher, Science & Math, Teaching in English.

1. Introduction

All societies pay special attention to the study of childhood, because of its constant endeavor in developing human wealth. The first five years of the childhood represent the mainstay of his personality, So the interest of educators have been increased in children at this sensitive stage, because first; the child became the axis of the educational process, second; because the largest proportion of its growth takes place in the first five years of his life, therefore it is known that the pre-school stage (kindergarten) is a fundamental stage and the basis for building the next stages of growth, in which develops the linguistic and mental development of the child also has the property of imagination. At this stage, the child's creative abilities can be detected, and can be developed, hence, the seriousness of this stage comes from being the stage of the formation of habits and attitudes and mental, social, psychological and physical skills, which constitute a human personality that will soon crystallize during different stages of growth.

The teacher should have personal, social and professional characteristics so that s/he can perform the duties towards the children, so kindergarten teachers are the most important



people concerned with the care of little children, they spend with them long periods of time, therefore they have a crucial role in the effectiveness education. S/he organizes, manages, and implements experiences in the direction of the specific objectives of each child. Besides s/he is the mainstay of the educational process in the Kindergarten. The kindergarten teacher has the greatest burden in achieving the kindergarten message, raising the children in the kindergarten and achieving the overall integrated development in the aspects of their personality from the mental, physical and emotional aspects, and attaining the habits, attitudes, values, tendencies, and experiences to achieve the educational goals. The teacher can carry out the various duties of the process of education in kindergartens within the basic education in the Ministry of Education.

In the summer of 2015, the Ministry of Education in the Kurdistan Region of Iraq issued a decree instructing that the science and mathematics should be taught in the English language in the kindergarten stage in Kurdistan region. Therefore, a course was opened for kindergarten teachers so that they could teach the two subjects in English. This has led researchers of this study to visit the kindergartens, and through that, they observed problems and obstacles when the teachers try to teach these subjects in English. They also felt that there were negative or positive attitudes by some teachers towards teaching these subjects in English. The teachers criticized the decision to teach these two subjects due to the absence of a book in the English language for kindergartens covering the two subjects and the need to open a course for (3 - 6) months to train on how to teach these two subjects. The course should be during the summer holiday so as not to be an obstacle to continuing lessons. Besides, they complained that teaching these subjects in English leads to forgetting the mother tongue. These negative views and attitudes may be a barrier or a negative impact on the role of the teacher as a leader in the field of education because the success of the educational process depends on the success of enjoyed with the appropriate abilities, behaviors, skills, and attitudes towards their profession besides teaching of the subject.

2. LITERATURE REVIEW

Shehata (1997, p.12) believed that kindergarten period is flexible in which the child is more responsive to modify the required behavior. The child is in a state of formation and configuration, therefore more susceptible to change and modification than any other developmental stage. Additionally, Mohamed, (2012, p.70) stated that; it is also one of the most important periods of life, either positive or negative, the kindergarten with the educational components is the appropriate structure for the characteristics and needs of children, teachers qualified educationally and scientifically, has a tendency and love of children, also know-how to deal with them. The appropriate curriculum for this stage, including the concepts, facts, experiences, and activities that are appropriate to the needs of children and their tendencies and the realization of their desires and their readiness and related to their environment and their lives.

As Al-Ghurairi & Al-Naamna (2013, p. 83) mentioned, the curriculum has a great importance in the educational process in kindergartens, and as a result, the programs of modern kindergartens have been comprehensive, flexible, integrated and effective, covering all dimensions of the child's development and activities in kindergarten. At the same time, Yassin, (2001, pp. 117-118) stated; it will become worthless without the availability of a teacher capable of performing well, in addition to multiple levels of parameters in terms of qualifications and educational experience and the number of training courses. But as it is known, teachers have tendencies and attitudes towards all things surrounding them.

Zahran, (1984, p. 251) stated that attitudes are very important in the life of individuals and society because they have constant and regular determinants of social behaviour. In the other hand Maraa and Balqis (1996, p.422) believed that the researches were conducted in the



field of attitudes represent a large amount of research carried out on the personality of individuals and the composition of groups in many areas and varieties. The accumulation of attitudes in the mind of the individual leads to depending on it, and reduces the independence of the individual in his behaviour, then becomes a behavioural method which is a routine recurrent and predictable. Al-Qenaoui, 2008, p.149) believes that the majority of psychologists believe that the field of attitudes and opinions are important areas for conducting research because attitudes and opinions are two parts of our daily lives and have a great role in guiding the behaviour of individuals in the problems and social obstacles.

Al-kattani, 2000, p.36) stated that; changing and modifying the attitudes that have been relatively stable is difficult because they are related to the general framework of the personality, the cognitive domain can be modified to a certain extent, but it is difficult to modify the emotional and behavioural domains.

The significance of this study is to identify the educational attitudes of an important class in the community who are kindergarten teachers. The results of this research may also benefit the officials of the Ministry of Education to work on the kindergarten teachers and the future courses they open for them and the decisions they will make in the future from this regard.

However, according to researchers, this research is considered to be the pioneer in the field of studying the attitudes of kindergarten teachers towards the teaching of science and mathematics in which English is used as a medium of instruction in the Kurdistan region of Iraq. Therefore, there is a need to look at the attitudes of kindergarten teachers in Kurdistan kindergartens.

Attitudes were defined by Al-Atum (2009, p.195) as “the organization of knowledge with positive or negative associations to objects, persons or cases. It is also defined by Saleh, (2014, p.12) as “a relatively constant cognitive readiness that determines the individual's feeling and behaviour about certain subjects in terms of preference or lack of preference, while both of the researchers define the attitudes as a positive sentimental readiness with positive or negative associations towards subjects, objects, persons or attitudes in terms of preference or non-preference, behind they put the procedural definition of attitudes as the degree obtained by the members of the current research sample on the scale of measuring prepared for this research. They also define the attitudes toward teaching as the reactions of the kindergarten teachers of science and mathematics in English in Koya city that are measured by the degrees obtained by the teachers when they respond to the scales of the attitudes towards teaching used by the researchers in this research.

Dwidar (1999, p.339) states that the concept of attitude is particularly important in social psychology and educational psychology. One of the most important outcomes of the process of socialization, and at the same time the most important motives of the behavior that plays a key role in the control and guidance of attitudes, also one of the most important functions of education is that young people have attitudes that help them adapt to the problems of the current life and to change undesirable attitudes that may hinder the development of society. Al-Hariri (2007, p.63) believes the trend tends to direct the individual's responses to people or attitudes related to his/her mental nervousness or cognition, and as the trend moves and is learned, attention to his/her learning method indicates its importance in our contemporary world, and the assessment of attitudes as any evaluation process helps to determine the final form of response of Individuals towards Different Topics of Science.

Melhem (2001, p.162) states that the study of attitudes occupies a prominent place in education, personal studies, group dynamics, communication and public and private human relations. It is considered to be one of the most important outcomes of the process of socialization, and the determinant of the organized behavior of social behavior. If it is a



behavioral response of a positive type to a particular subject in a degree that the individual acquires through his/her contact and interaction with the environment in which he/she lives. It is also a determinant organization social behavior and orientation.

Fazio & Petty (2008) believe that attitudes come in different shapes and sizes, and they can be based on different sets of information, while Erwin, (2001) states that attitudes are crucial to our everyday life. They help us to interpret our surroundings, guide our behavior in social situations and organize our experiences into a personally meaningful whole.

Al-Zyodo *et al.* (1999, p.113) states that attitudes return to the factors acquired in human behavior, which means that their composition in humans is not genetically acquired, but gained through experience and practice that is through learning. Often the teacher may face some positive or negative attitudes towards the learning process, which requires him/her to reveal these two types of attitudes, to promote their positive attitudes, and work to get rid of negative attitudes and replace them with other positive ones. This leads to the success of the process of classroom interaction.

In Allport (1954, p.2001)'s definition he pointed out, attitude involved particular responses like cognition, behavioral and affective responses having clear and specific associations with attitude object. Many educators and psychologists see that the trend consists of three main components:

1- Cognitive Component: Cognitive component responses to particular thoughts, beliefs, attributes, and even a person's preconceived notions about the stimulus object (Augoustinos & Walker, 1995; Fazio & Petty, 2008; Tate, 1999). Al-Atum (2009, p.198) believes that this component includes knowledge, beliefs, and arguments possessed by the individual on the subject of attitudes. These ideas and beliefs may be true and may be mere beliefs based only on the myth. That is why they should be supported by objective facts and the right knowledge.

Millon and Lerner (2003) stated that cognitive or beliefs play a prominent role in both major models of attitude content. Knowledge about an object can come either from direct experience with the object or from indirect sources such as parents, peers, and the media. Additionally, Erwin (2001) stated, attitudes based on direct experience tend to be stronger than attitudes derived from indirect information.

2- Emotional Component: This component referred to the feelings and positive-negative emotional relationships one had towards an object, activity or situation, although also commonly scaled for significance and degrees of effect (Erwin, 2001; Mueller, 1986; Oskamp, 1991; Pratkanis, Breckler, & Greenwald, 1989). Al-Khawalida & Aed (2005, p.126) believes that this component includes the feelings of liking or disliking what the individual faces towards a subject or a point of view and are related to the emotional composition, which can respond positively or negatively. We can identify the intensity of these feelings by identifying the individual's position between the extremes of the direction between total acceptance or absolute rejection of the subject of direction.

3- Behavioral Component: Behavioral component refers to the way one tends to act toward the object. It is the way in which behavior is affected by attitude (Augoustinos & Walker, 1995; Erwin, 2001; Oskamp, 1991; Tate, 1999). Nashwaati (2003, p.472) believes that this component includes the tendency of the individual behavior according to specific patterns in certain situations, the attitudes act as guidelines for behavior where the individual to work in accordance with the direction adopted by the student who has acceptable attitudes towards school work, contribute to various school activities and the student persists in her performance in a serious and effective manner.

Many scholars are interested in measuring attitudes, and they have set multiple measures. These measures deal with a set of issues that represent specific dialectical topics in



one subject and in which certain conditions are met. The trend can be measured in more than one way.

a- The Bocards Method: contains units or expressions representing a number of real-life situations to express the extent of social dimension or social distance to measure the position of the individual of a particular race or people.

b- Thurston Method: Attitudes measure a number of units. The scale consists of a number of units or phrases, each having its own weight and expressed value for the scale as a whole.

c- Getman Method: it represents the measuring the attitudes by giving the parts that can accept or refute the response by 'Yes' or 'No'. The researcher can conclude that the when examinee accepts other parts (1) then the other part will be accepted (Majid, 2014, pp. 353-355).

d- Method of the Differentiation of Meanings: measuring the psychological meaning of concepts and has been used to measure attitudes since 1967 widespread for its simplicity.

e- Likert Method: The most widely used method of constructing a trend scale is called the cumulative estimation method because the individual's score on the scale is the sum of their estimation of all measurement terms. The part is characterized by the use of this method divided into two halves first includes the positive parts and the second includes the negative parts, whether positive or negative alternatives or choices may be three or four or five ... etc. (Allam, 2002, 516).

The researchers will use the Likert method in this study.

Prior studies offered insights into attitudes of kindergarten teachers towards several things, such as, Mohamed (2012, p.70) who found that; there are high positive attitudes towards the new curriculum in general, which is known as (My Right to play, Learn and innovate). On the other hand; Gheith, & Al-Shawareb (2016, pp. 320-328) indicate that teachers' attitudes toward science were positive. Moreover, the findings indicate statistically significant differences among the mean values of the teachers' scores on the teaching practices scale in science according to the type of Kindergarten (public/private) and in favor of teachers who work in private kindergartens. The findings further indicate that teachers' attitudes toward teaching science are considered to be a significant factor in predicting developmentally appropriate teaching practices in science. Further analysis by Lee (2004) revealed that kindergarten teachers' attitudes toward teaching mathematics were found to be a significant variable correlating with the practice of developmentally appropriate mathematics, but kindergarten teachers' attitudes toward mathematics were not a significant variable.

2. METHODOLOGY

In this study, the descriptive and correlative methodology were used because of it is commensurate with the nature of this research.

3.1 PURPOSE OF THIS STUDY:

- a) To know the attitudes of kindergarten teachers towards teaching science and mathematics in English in Koya city for the academic year 2015-2016.
- b) To identify the attitudes of kindergarten teachers towards teaching science and mathematics in English according to some variables (age, monthly income, certification).



3.2. RESEARCH QUESTIONS:

1. What are the teachers' attitudes towards teaching mathematics and science in English in Kindergarten?
2. Are there differences among female teacher's attitudes towards teaching mathematics and science in English in kindergartens according to their age?
3. Are there differences among female teacher's attitudes towards teaching mathematics and science in English in kindergartens according to their monthly income?
4. Are there differences among female teacher's attitudes towards teaching mathematics and science in English in kindergartens according to their academic certificate?

3.3. SAMPLE SIZE

This study was conducted at Koya. All the community was taken and it consisted kindergarten teachers in the city of Koya for the academic year 2015-2016, who participated in the science and math course in English; as it is summarized in Table (1):

Table 1: The sample size of the study

Name of the kindergarten	Research Community	Sample Research			
	The number of Teachers	The taken	number	The percentage derived%	The percentage in the sample
Koya	3	3		%100	%9.1
Papula	3	3		%100	%9.1
Shilan	4	4		%100	%12.1
Tre	4	4		%100	%12.1
Gwl	2	2		%100	%6.06
Zanko	3	3		%100	%9.1
Rangala	3	3		%100	%9.1
Shan	3	3		%100	%9.1
Bnawsha	3	3		%100	%9.1
Hanar	2	2		%100	%6.06
Ara	1	1		%100	%3.03
Khanzad	2	2		%100	%6.06
Total	33	33		%100	%100

3.4. RESEARCH INSTRUMENT: The Instrument was developed based on the following steps:

1. The researchers put a set of questions in an open questionnaire in front of the kindergarten teachers on 11/11/2015.
2. Also, they reviewed the established literature such as Murad & Juma (2006, pp. 16-19), Hussein & Ibrahim (2008, pp. 16-17), Al-Maqouchi (2008).
3. Depending on the steps No. (1 & 2), 21 items were formulated by modifying, changing and adding the items to be relevant to the Instrument (12 negative items were formulated and 9 positive items).
4. Then they set the Likert scale to answer the scales and give weights to each option as shown in the following diagram:

The options	exactly apply	fairly apply	I do not know	do not apply	never apply
Positive Items degrees	5	4	3	2	1
Negative Items degrees	1	2	3	4	5

Diagram showing the Likert scale & their weights



3.5 VALIDITY AND THE RELIABILITY

3.5.1. VIRTUAL VALIDITY

The Instrument was validated by specialists and experts; they recommended making corrections in terms of content, expression, and formulation, to find the apparent truthfulness of the instruments. As a result, 4 items were reduced from the Instrument, this is achieved by taking a percentage of agreement between the experts by reaching (83%) and above. The final questionnaire consists of (17) items.

3.5.2. RELIABILITY

By using the Cronbach Alpha, the reliability for the 17 items was established at 0.83. According to Duran (1985, p.133) this is an appropriate proportion of measurement for individuals, see Table (2).

Table 2: Cronbach's Alpha reliability

Number of sample	Number of Items	Value of Cronbach's alpha
16	17	0.83

3.6. DETERMINE THE ATTITUDES OF THE RESEARCH SAMPLE:

- Because the lowest score (or degree) given to the items of the Instrument is (1), and the number of items is (17), so the lowest degree of the scale (as whole) will be (17), in case if the arithmetic mean is equal to (17), we will call upon the name of a very negative attitude.
- In the case of a score of (2) given to the items of the Instrument multiplied by the number of items is equal to (17), so the next degree of the Instrument will be (34), and in the case if the mean is equal to (34), we will call upon the name of a negative attitude.
- In the case of a score of (3) given to the items of the Instrument multiplied by the number of items is equal to (17), so the next degree of the Instrument will be (51), and in the case if the mean is equal to (51), we will call upon the name of a neutral.
- In the case of a score of (4) given to the items of the Instrument multiplied by the number of items is equal to (17), so the next degree of the Instrument will be (68), and in the case if the mean is equal to (68), we will call upon the name of a positive attitude.
- In the case of a score of (5) given to the items of the Instrument multiplied by the number of items is equal to (17), so the next degree of the Instrument will be (85), and in the case if the mean is equal to (85), we will call upon the name of a very positive attitude.



3.7. STATISTICAL PROCESSING

For the data analysis; SPSS technique was applied in this study, which was the arithmetic mean, standard deviation, Cronbach's Alpha, Spearman Correlations, Independent Samples t-Test, One-Way ANOVA, and Equal Variances Assumed: Scheffe.

3.8. RESEARCH PROCEDURES AND DATA ANALYSIS

After checking the validity and the reliability of the scale, the scale was applied to the research sample on 10/2/2016 and the data was then entered into the SPSS program to obtain the search results.

4. FINDINGS

- 1- To answer the first research question: What are the teachers' attitudes towards teaching mathematics and science in English in Kindergarten? The arithmetic mean of the sample was found on the direction questionnaire (45) with a standard deviation of (9.64), as summarized in Table (3).

Table 3: The arithmetic mean and standard deviation of the sample

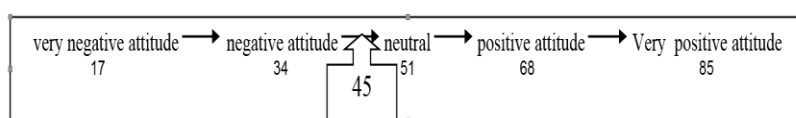
	N	Mean	Std. Deviation
scale	16	45.00	9.64

To determine the total scores taken on the scale at every level we multiply the (grades given to any alternatives) by (total number of items of the scale 17) shown in Table (4).

Table 4: determine the level of attitudes

	The level of attitudes				
	1	2	3	4	5
	very negative attitude	negative attitude	neutral	positive attitude	Very positive attitude
Total scores taken on the scale (17) items	17	34	51	68	85

Therefore, we can identify the level of attitude towards teaching mathematics and science in English in Kindergarten at Koya city by comparing the arithmetic mean of the sample with the following Scheme (1):



Shape (1) Identify the mean of the sample according to the level of attitude towards teaching



We conclude that the attitude of the research sample based on the above scheme is: above the negative attitude level and below the neutral level. Therefore, it is clear that the mathematics and science teachers in the kindergartens in the city of Koya have an attitude between neutral and negative (to a certain extent) towards teaching these subjects in English.

- 2- In answering the second research question: Are there differences in the attitudes of female teachers towards teaching mathematics and science in English in kindergartens in Koya city according to the variable of age? This research question was tested by using (One-Way ANOVA) technique of the bag statistical (SPSS). The results showed that the value of (F) was equal to (9.368) which was statistically significant at the level of (0.002) which is less than the significance level (0.05). Thus, it is clear that there are differences in the attitudes of female teachers towards teaching mathematics and science in English in kindergartens in Koya city according to the variable of age, as shown in Table (5).

Table 5: ANOVA to showing differences in the attitudes according to age

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	976.9	3	325.63	9.368*	0.002
Within Groups	417.1	12	34.756		
Total	1394	15			

* The mean difference is significant at the 0.01 level

- 3- To show the differences between different age levels, the researchers used (Tukey HSD) technique. The results showed that there were statistically significant differences between the age category (25-29) with has more positive attitude compared with the age categories (35-39), (30-34) and (40-44) In statistical level at (0.019), (0.002) and (0.002). Also, there were no statistically significant differences between the age category (30-34) and between the age categories (35-39) and (40-44). Besides, there were no statistically significant differences between the age category (35-39) and the age category (40-44), as shown in Table (6):

Table 6: Differences between mean of age categories by Tukey HSD technique

Age (I)	Age (J)	Mean Difference (I-J)	Sig.
25-29	30-34	18 [*]	.019
	35-39	24.7 ^{**}	.002
	40-44	23.3 ^{**}	.002
30-34	35-39	6.7	.368
	40-44	5.3	.557
35-39	40-44	-1.4	.981

* The mean difference is significant at the 0.05 level

** The mean difference is significant at the 0.01 level



- 4- In answering the third research question: Are there differences in the attitudes of female teachers towards teaching mathematics and science in English in kindergartens in Koya city according to the variable of monthly income? This research question was tested by using (One -Way ANOVA) technique of the bag statistical (SPSS). The results showed that the value of (F) was equal to (4.398) which was statistically significant at the level of (0.035) which is less than the significance level (0.05). Thus, it is clear that there are differences in the attitudes of female teachers towards teaching mathematics and science in English in kindergartens in Koya city according to the variable of monthly income, as shown in Table (7).

Table 7: ANOVA to showing differences in the attitudes according to monthly

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	562.583	2	281.292	4.398*	.035
Within Groups	831.417	13	63.955		
Total	1394				

* The mean difference is significant at the 0.05 level

To show the differences between different age levels, the researchers used (Tukey HSD) technique. The results showed that there were statistically significant differences between the monthly income category (less than 450000ID) has more positive attitude compared with the monthly income category (500000ID -950000ID), at the statistical significance level (0.031), while there were no statistically significant differences between the monthly income category (less than 450000ID) and the monthly income category (1000000ID – 1450000ID). Also, there were no statistically significant differences between the monthly income category (500000ID – 950000ID) and the monthly income category (1000000ID – 1450000ID), as shown in Table (8):

Table 8: Differences between mean of monthly income categories by Tukey HSD technique

monthly income (I)	monthly income (J)	Mean Difference (I-J)	Sig.
less than 450000ID	500000ID -950000ID	13.92*	.031
	1000000ID -1450000ID	12.92	.125
500000ID - 950000ID	1000000ID -1450000ID	-1	.981

* The mean difference is significant at the 0.05 level



- 5- In answering the second research question: Are there differences in the attitudes of female teachers towards teaching mathematics and science in English in kindergartens in Koya city according to the variable of academic certificate? This research question was tested by using (One -Way ANOVA) technique of the bag statistical (SPSS), the results showed that the value of (F) was equal to (4.813) which was statistically significant at the level of (0.027) which is less than the significance level (0.05). Thus, it is clear that there are differences in the attitudes of female teachers towards teaching mathematics and science in English in kindergartens in Koya city according to the variable of academic certificate, as shown in Table (9).

Table 9: ANOVA to showing differences in the attitudes according to academic certificate

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	593	2	296.514	4.813*	.027
Within Groups	800.972	13	16.613		
Total	1394	15			

* The mean difference is significant at the 0.05 level

To show the differences between different academic certificate levels, the researchers used (Tukey HSD) technique. The results showed that there were statistically significant differences between the academic certificate category (bachelor) with more positive attitude compared with the academic certificate categories (Intermediate) and (diploma) In statistical level at (0.049), and (0.028), but there were no statistically significant differences between both the academic certificate categories (Intermediate) and (diploma), as shown in Table (10):

Table 10: Differences between mean of academic certificate categories by Tukey HSD

academic certificate (I)	academic certificate (J)	Mean Difference (I-J)	Sig.
Intermediate	diploma	-0.47	.994
	bachelor	-15.2*	.049
diploma	bachelor	-115.44*	.028

* The mean difference is significant at the 0.05 level



5. Discussions and Conclusions

By reviewing the results of this research, the following conclusions can be drawn about the current research results and analysed as follows:

- 1- The mathematics and science teachers in the kindergartens of Koya city have an attitude between neutral and negative (to a certain extent) towards the teaching of these subjects in English. This may be due to the fact that the teachers were involved in a short and relatively fast course and were pressed in order to teach mathematics and science in English without the appropriate qualifications and efficiencies. Most of them are old enough to learn a new language during a six-week course. Most children come to kindergarten and have no background in English, therefore it is difficult for teachers to teach them. On the other hand, the schools suffer from a lack of educational materials and educational technology, all of which could lead to generating negative attitudes towards the teaching of those two subjects in English.
- 2- The age category (25- 29) has a more positive attitude compared to other age categories and it was statistically significant. The monthly income group (less than 450,000) has a more positive attitude compared with the monthly income category (500000-950000). The results are fairly logical. The 25-29 age category and the monthly income category (less than 450,000) are the youth category, naturally, have more positive attitudes toward math and science teaching in English. Also, they are more likely to learn a new language during the course that was opened for them. Besides, some of them were originally English graduates, who had recently graduated from colleges, which may generate a motivation and a desire to work. Therefore, they have the more positive attitude to teach those subjects in English.
- 3- The degree of academic certificate category (bachelor) has a more positive attitude than the academic certificate categories (Intermediate) and (diploma). This may be due to the fact that the holders of the bachelor's degree have been prepared from the educational and teaching point of view. Some of them are graduates of the colleges of education, especially the English department, have the competence and effectiveness to teach these subjects in English, which generates a more positive attitude towards teaching.

6. Recommendations:

Based on the results of this research, the researchers recommend that the officials of the Ministry of Education and the directorates of education draw their attention to and take into account the following points:

1. Opening courses by the directorates of education not less than six months to teach the teachers how to teach these subjects in English.
2. A special committee of the Ministry should choose the teachers who have a positive attitude towards teaching these subjects in English before starting their courses by measuring their attitudes.
3. Employing young educational cadres and graduates of faculties of education in the English language section in kindergartens to teach these subjects in English.
4. Review the curriculum in the kindergarten section of the universities in terms of emphasis on teaching English language and how to teach children both science and mathematics in English. Besides in terms of acceptance, no student should be accepted with less than 85 scores in English.



5. Provide schools with appropriate educational and technological materials to facilitate the teaching of teachers when teaching children mathematics and science in English.

7. SUGGESTIONS

1. Conduct a similar study on the mathematics and science parameters in English in grades 1 and 2 in elementary school.
2. Conduct a similar study taking into account a larger sample and comparison between several cities.

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ملخص

هدفت هذه الدراسة إلى التعرف على اتجاهات معلمي رياض الأطفال نحو تدريس العلوم والرياضيات باللغة الإنجليزية في مدينة كوية للعام الدراسي 2015-2016، والتعرف على اتجاهات معلمي رياض الأطفال نحو تدريس العلوم والرياضيات باللغة الإنجليزية وفقاً لبعض المتغيرات (العمر والدخل الشهري والشهادة). تكونت عينة البحث من 33 من معلمات رياض الأطفال. وقد تم تطوير أداة البحث من قبل الباحثين، وبعد ذلك تم التحقق من صدقه من قبل المتخصصين والخبراء، إلى جانب إيجاد الثبات باستخدام كرونباخ ألفا، والذي بلغ 0.83. وأظهرت النتائج أن معلمي الرياضيات والعلوم في رياض الأطفال في مدينة كوية لديهم موقف بين المحايد والسالب (إلى حد ما) نحو تدريس هذه المواد باللغة الإنجليزية. بالإضافة إلى ذلك، فإن حاملي الشهادة الأكاديمية (البكالوريوس) لديهم موقف أكثر إيجابية من فئات الشهادات الأكاديمية (الأعدادية) و (الدبلوم).

الكلمات المفتاحية: الأتجاه، رياض الأطفال، المعلم، العلوم والرياضات، التدريس باللغة الانجليزية.

یوخته

ٲامانجى ئۇم ر تۆيۈنلۈك بريتېبوو لە ئاشنا بوون بە ئاراستە مامۇستايانى باخچە مندالان بەرامبەر وانهوتتەوى زانست وبيركارى بە ئينگلىزى لە شارى كۆپە يۇ سالى خويۇندنى 2016-2015، وئاشنا بوو بە ئاراستە مامۇستايانى باخچە مندالان بەرامبەر وانهوتتەوى زانست وبيركارى بە ئينگلىزى بە پىتى گوزاوهكانى (تەمەن وداھاتى مانگانە وبروانامە). سامپلى تويۇنلۈككە پىكتايتوبو لە (33) مامۇستاي باخچە ساوايان. ئامرازى تويۇنلۈككە لەلايەن تويۇرەنەوه پەرى پىندرا، پشان راستگوئيەككى دوزرايوه لەلايەن كۆملەيك پسپور وشارەزا، هەر وهها جىگرييهككى دوزرايوه بە بەكارهيتنانى لەفا كرۇنباخ كە (0.83) بوو. ئەنجامەكان دەريانخت كە مامۇستايانى زانست وبيركارى لە باخچە مندالان لە شارى كۆپە ئاراستەيان لە تيوان بيلايەن ونەريننيە (تارادەپەك) بەرامبەر وتتەوى ئۇ دوو بابتە بە ئينگلىزى، سەرەراي ئۇوش؛ دەرکەوت كە هەلگرانى بروانامەي ئەكاديمى (بەكالورىۇس) ئاراستەيان ئۇرپى ترە وەك لە هەلگرانى بروانامەي (ئامادەپى) و (ديپلوم).

وشه کانی کلیل: ئاراسته، باخچه‌ی مندالان، ماموستا، زانست و یرکاری، وانه‌وتنه‌وه به ئینگلیزی.