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School Teachers' Attitude Toward the Use of Web 2.0 Tools in Teaching in Saudi Arabia

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Abstract

Recently, Web 2.0 tools becomes an essential tool that being used in a daily bases by teenagers. This tool can be used to enhance teaching the new generation. The purpose of this study is to assess high school teachers' attitude toward the use of Web 2.0 tools in Teaching. This study is a quantitative study using a survey approach. The sample of the study is high school teachers in Saudi Arabia. The result indicating that there was no significant relationship between Age and Attitude (r (26) = 0.008, $p < .01$, *one tailed*) and no significant relationship between Years of experince and Attitude (r (26) = -0.095, $p < .01$) as well.

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1. Introduction

The use of new technology in teaching have been approved obviously to enhance education and increase student achievement in many skills. The purpose of the study is to examine the attitude of school teachers toward the use of Web 2.0 tools in teaching. This study also examines the influence of age on their attitude. In the past decades when we were students, some of us spend a lot of money to buy learning CDs to help us to understood the subject. But know we have free technology such as YouTube. It has different subjects and in variety of languages. Students do not need to rely only on teachers and books as they learned. If they missed a lecture, didn't understand the teacher, students could go home and watch these educational videos. The student could easily rewind the video as many times as they wanted. Web 2.0 tools is able to improve our education.

The research problem is that what type of attitude school teachers have toward the use of Web 2.0 tools in teaching. It also investigates the relationship between their attitude toward the use of Web 2.0 tools and age. As will be mentioned through the literature there are many researches indicate the influence that this factor has on teachers' attitude toward the use of new technologies in classrooms. The inventions of new technologies have been found to have countless educational benefits. With the digital native generation, the use of new technologies in classrooms make the education more favorable for them. One of the subjects that highest school students in Saudi Arabia is struggling with is science classes.

Recently, the ministry of education in Saudi Arabia signed a contract which in three years will change k-12 education completely to a digital environment. Instead of the paper and pencils, each student will have an electronic device and access to Internet. Without a doubt, teachers' attitude toward the adoption of this new technology is an important factor to make this change successful. This study tried to investigate the attitude of school teachers toward the use of Web 2.0 tools in teaching as well as the factors that influence the Attitude. *Attitude* is

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defined by Fishbein and Ajzen (1975) as "an individual's positive or negative feelings (evaluative affect) about performing the target behavior" (p. 216). Web 2.0 tools: A collective term for certain applications of the Internet and the World Wide Web, including blogs, wikis, video sharing services, and social media websites such as Facebook and MySpace, which focus on interactive sharing and participatory collaboration rather than simple content delivery.

2. Review of Related Literature

Constructivism refers to the idea that people do not only store the information as they received it, but they try to understand, interpret, and organize it in a coherent matter (Ormrod,2008). There are two types of constructivism: individual and social. First, individual constructivism is where each individual builds and constructs his/her own knowledge independently from the other. Second, social constructivism is where people work together to construct a coherent knowledge (Ormrod, 2008). Using Web 2.0 tools in teaching supports the use of social constructivism. Clifton and Mann (2011) tried to investigate the benefits of utilizing YouTube in the education. One of the benefits that they found is "it is a recognized tool from the digital environment of the neaten. YouTube is an established social software and has millions of users and is already being used as both an informal and formal learning tool by many. As its benefits are becoming more established universities are adding their own channel to provide wider access to their institutions' learning materials" (p. 312). They are concluding that educators need to consider the use of YouTube as tool to educate the current day's students.

One of the factors that have been found to play an important role in adopting new technologies in classrooms is attitude. A lot of research about the importance of teacher attitudes toward the implementation of new technology have been done (Almaghlouth, 2008; Alqurashi, 2016; Alzamil, 2003; Amoudi & Sulaymani, 2014; Isman, Abanmy, Hussein, & Al

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Saadany, 2008; Zaid, Jamaludin, & Abas, 2012). It has been found that teacher attitude is a key factor toward adoptions of new technologies in classrooms sittings.

Albalawi (2013) investigated high school teachers' attitude toward the use of e-learning in teaching mathematics courses in Saudi Arabia. She surveyed 62 female math teachers in Tabuk city. She found that teachers' attitude was highly positive toward the use of e-learning. She also found that there were no statistically differences in teachers' attitude when examined based on their academic degree, years of experience, and training.

Alzamil (2003) in his dissertation research carried out a study to examine the attitude of high school social studies teachers toward the using of technology in teaching. The sample of his study consist of 99 male teachers and 84 female teachers from Riyadh's educational district in Saudi Arabia. Alzamil (2003), concluded that both male and female teachers hold positive attitudes toward the integration of technology in classrooms. He also found that gender, years of experience, academic major, and educational level had no significant influence on teachers' attitude toward the use of tecnolgy in classrooms.

Another study that investigate teachers' attitude toward the adoption of educational video games and factors that impact their attitude was carried out by Alqurashi (2016). A total of 930 teachers participated in his study. He concluded that the participants hold positive attitude toward this adoption. Moreover, He found that teachers' attitude toward the use of educational video game are influence by the participants' gender $F(1, 894.601) = 4.522$; ($p < 0.034$). Alqurashi (2016) also found that teachers' attitude was not influence by the grade they teach as well as their years of experience.

Isman et al., (2008) conducted an investigation to examine secondary school teachers' attitude toward the use of Interactive Whiteboard in the classrooms. They surveyed 100 teachers in Riyadh's educational district in Saudi Arabia. They concluded that participants hold positive attitude toward the use of Interactive Whiteboard in the classrooms. Another study was

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carried out by Zaid et al., (2012)investigated teachers' attitude toward the use of e-learning. He reported that there were no significant difference in teachers attitude toward the use of e-learning in regard to age and gender. Bakr (2011) used a survey to assess teachers' attitude towards the use of computer in Egypt. The sample consist of 118 teachers, 53 male and 65 female. She found that teachers hold positive attitude and there were no significant differences in terms of gender and years of experience.

3. Research Questions and Hypothesis

Research Questions 1: What is the relationship between school teachers' attitude toward the use of Web 2.0 tools in teaching and age?

Null Hypothesis: The age of school teachers will not have a relationshpe with their attitude toward using Web 2.0 tools in teaching. Alternative Hypothesis: The age of school teachers will have a relationshpe with their attitude toward using Web 2.0 tools in teaching.

Research Questions 2: What is the relationship between school teachers' attitude toward the use of Web 2.0 tools in teaching and Years of experince?

Null Hypothesis: The Years of experince of school teachers will not have a relationshpe with their attitude toward using Web 2.0 tools in teaching. Alternative Hypothesis: The Years of experince of school teachers will have a relationshpe with their attitude toward using Web 2.0 tools in teaching.

4. Methodology

The purpose of this study was to investigate the status of the integration the attitude of school teachers have toward the use of Web 2.0 tools in teaching by female teachers in selected

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high schools in Saudi Arabia. This study was also designed to determine if there was relationship between attitude and age. This study is a descriptive study that use a survey to collect the data. Descriptive analysis and correlation analysis is used to answer Research Question 1 and Research Question 2. The accessible population of this study is female school teachers in Jeddah city. The method of the sampling was convenience sampling. There are three variables in this study Age, Years of Experience and Attitude. The researcher used instrument that was developed in prior study. The instrument that was used has high validity and reliability and been used a lot to measure teachers' attitude toward different type of technologies in Saudi Arabia.

After getting the data, the researcher used SPSS to analysis the data. The researcher used the means and correlation analysis to test the hypothesis with alpha level of .05. The data collected from the questionnaire were analyzed using the Statistical Package for Social Sciences (SPSS) version 23.0.

5. Result

The purpose of this section is to discuss the results of data analysis for this study. The first part presents the sample description for this study. The second part discuss preliminary analyses, which include outlier's analyses. The results of inferential statistics, which answer Research Questions 1 and Research Questions 2 is presented in the last part.

This study investigated the attitude of school teachers toward the use of Web 2.0 tools in teaching. I received the responses of 26 female teachers. The age of the participants ranges from 25 to 61 years (see Fig 1). The mean of the participants age was 39.19. The year of experience of the participants ranges from 1 to 26 years. The mean of the participants age was 9.85. Table 1 reports the overall central tendency and variability. This includes the possible

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range of scores, the actual range of scores, the values of the mean, slandered deviation, and median.

Table 1

Descriptive Statistics About the Study Sample

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Attitude	26	3.00	2.00	5.00	3.6409	.71414
Age	26	36	25	61	39.19	10.450
YearsOfEXP	26	25	1	26	9.85	7.770
Valid N (listwise)	26					

The overall mean of 3.64 ($SD = 0.71$). So, the participants almost hold a neutral attitude toward the use of Web 2.0 tools in teaching.

Outliers are those sores or responses that do not fit with the rest of the responses. These outliers can be the results of data entry error or rare cases. There is no manual entry in this study, so the outliers in this study, if exist, represents the rare cases in the sample. A scatterplot was used to detect outliers between the dependent variable (Attitude) and the independent variables (Age and Years of Experience). No outliers were identified in the analysis.
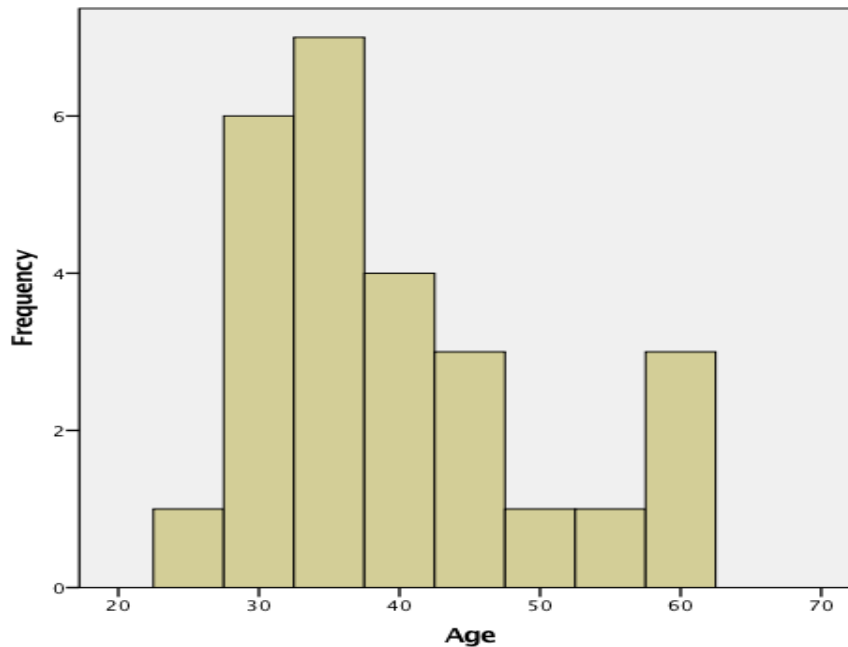
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Fig. 1. The distribution of the age for the sample.

Research Question 1

It states that What is the relationship between attitude toward the use of Web 2.0 tools inteaching and age? The null hypothesis for this question was "The age of school teachers will not have a relationship with their attitude toward using Web 2.0 tools in teaching" ($H_0 : p = 0$). The alternative hypothesis was "The age of school teachers will have a relationshpe with their attitude toward using Web 2.0 tools in teaching" ($H_0 : p \neq 0$).

As shown in table 2 and in Fig 1, It was found that there were no significant relationship found between Age and Attitude ($r\,(26) = 0.008, p < .01,$ *one tailed*). As result of that, the null hypothesis was accepted, and the alternative hypothesis was found to be rejected.

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Table 2

Correlation Coefficient Analysis Between Age and Attitude

		Age	Attitude
Age	Pearson Correlation	1	.008
	Sig. (1–tailed)		.485
	N	26	26
Attitude	Pearson Correlation	.008	1
	Sig. (1–tailed)	.485	
	N	26	26
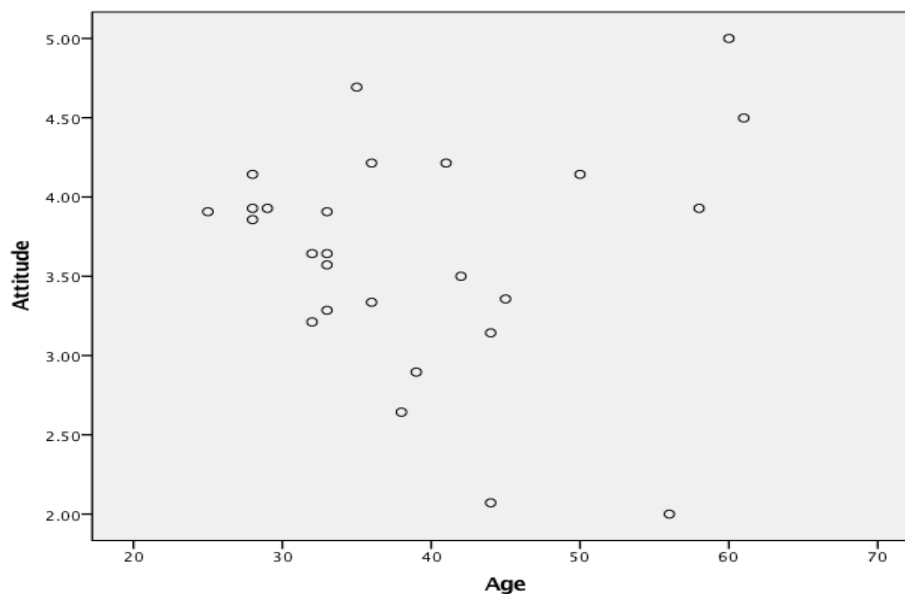
Fig. 2. Correlation Coefficient analysis between age and attitude

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Research Question 2

It states that: What is the relationship between attitude toward the use of Web 2.0 tools inteaching and Years of Experince?

The null hypothesis for this question was "The Years of experince of school teachers will not have a relationshpe with their attitude toward using Web 2.0 tools in teaching" (H_0 : p = 0). The alternative hypothesis was "The Years of experince of school teachers will have a relationshpe with their attitude toward using Web 2.0 tools in teaching" (H_0 :p $\neq$ 0). As shown in table 3 and Graph 2, It was found that there were no significant relationship found between Years of experince and Attitude (r (26) = -0.095, p < .01). As result of that, the null hypothesis was accepted, and the alternative hypothesis was found to be rejected.

Table 3

Correlation Coefficient Analysis Between Year of Experience and Attitude

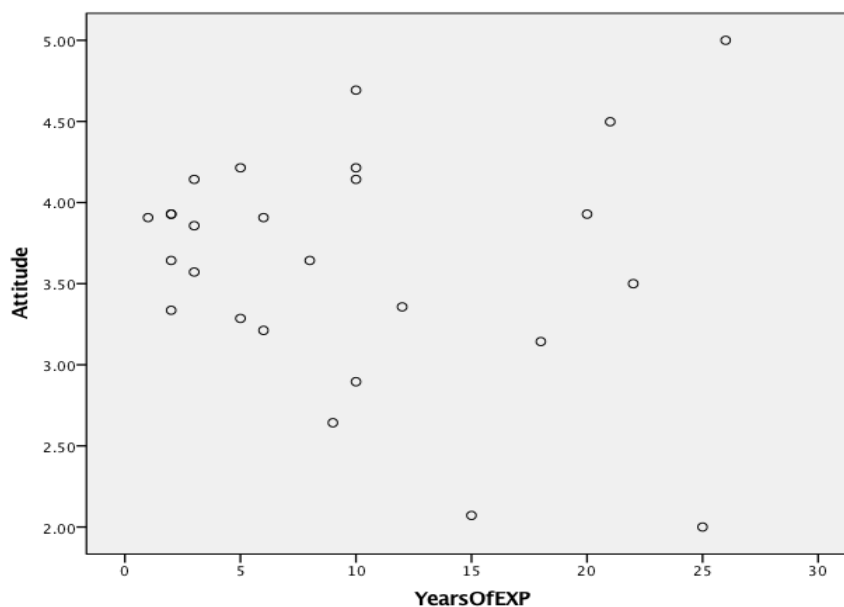|		Attitude	YearsOfEXP
Attitude	Pearson Correlation	1	-.095
	Sig. (1-tailed)		.322
	N	26	26
YearsOfEXP	Pearson Correlation	-.095	1
			26

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Fig. 3. Correlation Coefficient Analysis Between Year of Experience and Attitude

6. Conclusion and limitation

In conclusion, Web 2.0 tools can be used to enhance teaching the new generation. This study tried to assess high school teachers' attitude toward the use of Web 2.0 tools in Teaching. The result of this study indicates that the teachers hold a neutral attitude toward the use of Web 2.0 tools in teaching. Which imply that a lot of work need to be done in order to change their attitude toward the use of these new technologies in classrooms. Moreover, in consistency with some of previous studies, the results show that there were not important in influence on teacher attitudes based on their age or the number of years of experience. *One City.* This study will take place in one city of Saudi Arabia, so the results may not be appropriate to generalize to other cities. Moreover, the sample of this study was a small sample.

Acknowledgement

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