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Development of an Attitude Scale about the Use of Facebook in Social Studies Education: A Validity and Reliability Study

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Abstract

Social media can be used for educational purposes: people help the others in their homework and exchange ideas, are informed about their grades and lecture notes. Facebook is one of the social media tools too. The aim of this study is to develop a likert-type scale, namely social studies education with Facebook (SSEF), about the attitudes of teachers towards the use of Facebook in education.The study was designed as an eclectic research and employed both qualitative and quantitative data. The participants of the study were 202 classroom teachers. To develop the scale item analysis, confirmatory and explanatory factor analysis were used, and the Cronbach's Alphacoefficient was calculated. It was found that the SSEF is consisted of seven dimensions (cultural inheritance, our country and the world, occupations and production, science and society, social responsibility and citizenship, general items, evaluative items) and 37 items. The overall Cronbach's Alpha coefficient was found to be .98, indicating that the scale had higher levels of reliability. On the other hand, at the end of the implementation of the scale the findings obtained showed that the variables of gender, age, educational level, professional experience did not have significant effects on the dimensions on the scale. However, the variable of professional experience significantly affected the scores for the dimensions of our country and the world, occupations and production, social responsibility and citizenship, general items and evaluative items. More specifically, those classroom teachers with 1-5 yearsand 21+ years of professional experience had higher scores in the dimensions mentioned above.

Keywords: Development of scale, social studies education, social media, facebook, teacher attitude scales

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Introduction

Social media provide people with an opportunity to develop an identity and to express themselves.Concerning the use of social media the following findings have been collected (Kahraman, 2009): in the world two persons out of three visit social websites(Nielsen, 2009); time spent for Facebook each day is 8 billion minutes and the number of shared content is 285 million (Facebook, 2009); the number of active Facebook users is 350 million(wikipedia, 2009); Turkey is at the third rank in the use of Facebook with more than 14 million users(facebook, 2009); in Europe Turkey is the first country in terms of time spent in internet (comscore, 2009). Of social media outlets it is Facebook which is the commonest website with more than 85% the rate of use 85 (IAB and Elogia, 2012,cited in Sanchez, 2014; Ractham and Firpo, 2011). Social bakers (2013,cited in Kazancı and Dönmez, 2013)argues that there are 32 million 726 thousand 660 Turkish facebook users.Based on several studies Hew (2014) listed the common reasons for using Facebook as follows:

1. To continue the ongoing relationships: Under this heading people are thought to use Facebook to send messages to their friends, to communicate with familiar people and with those whom they cannot meet frequently, to learn what their friends do (Bosch, 2009; Ellison et. al., 2007; Joinson, 2008; Lampe, Ellison and Steinfield,2006, 2008; Lewis ve West, 2009; Pempeket. al., 2009; Sheldon, 2008; Stern and Taylor, 2007; Young and Quan-Haase,2009).
2. To meet with new people(Ellison et. al., 2007; Lampe et. al., 2006; Sheldon, 2008; Stern and Taylor, 2007; Urista et. al., 2009; Zhao, GrasmuckandMartin, 2008).
3. To relax and have fun(Lewis and West, 2009; Pempeket et. al., 2009; Sheldon, 2008).
4. To make themselves or others more popular (Urista et. al., 2009).
5. To spend time: when they get bored, people play games on Facebookand deal with various applications (Joinson, 2008; Pempek et. al., 2009; Sheldon, 2008; Stern and Taylor, 2007).
6. To exchange information about whey they are and what they are doing (Joinson, 2008; Pempek et. al., 2009; Sheldon, 2008; Stern and Taylor, 2007).
7. For educational purposes: people help the others in their homework and exchange ideas, are informed about their grades and lecture notes(Bosch, 2009; Pempek et. al., 2009).

One of the goals of social studies is to produce good citizens who think in a constructive, creative and critical manner and are aware of the society and the world as well as immediate problems about which attempt to provide solutions. Yiğit (2013) argues that citizens may participate in public life through technology. In recent years individuals realize their roles about taking and sharing ideas and information via social media. Given that some newspapers have online versions and that access to internet hasbecome easy using technology is a must of today's citizens some of whom are called digital citizens. In addition, a new type of texts has appeared. These texts are accessed through internet and have some distinctive features.Çakmak (2013) argues that such e-texts have changed reading habits:printed texts have pages and readers access information on these pages, while-texts (also called hypertexts) have links for words, pictures or animations to access information. Therefore, students should be informed about how to read hypertexts via various activities. Students can also access hypertexts in social media. Therefore, in education internet and social media should be employed to make students digital citizens and to acquire certain skills such as reading hypertexts. Friedman and Heafner (2006,cited in Yiğit, 2013) also argue that technology and internet should be used by both social studies educators and researchers. The reason for this requirement is the ability of internet to provide an opportunity to access primary resources in an easier way and the ability of technology to overcome geographical distance and to provide different perspectives.

There are numerous studies about the educational use of social media (Michikyan, 2015; Dougherty and Andercheck, 2014; Prescott, 2014; Acar and Yenmiş, 2014; Sanchez, 2014; Sabancı ve Urhan, 2014; Solmaz et. al., 2013; Barış and Tosun, 2013; Toğay, 2013; Manca and Ranierit 2013; Corso and Robinson 2013; Sidekli and Avaroğulları, 2013; VanDoorn and Eklund, 2013; Işık, 2013; Feger and Bhutta, 2013, Aydın, 2012; Stanciu et. al., 2012; Zaidieh, 2012; Robelia et. al., 2011; Caine and Policastri, 2011; Hew, 2011; Mazman and Usluel, 2010; Baran, 2010; Gülbahar et. al., 2010; Roblyer et. al., 2010; Suraya et. al., 2010; Kabilan, Ahmad and Abidin, 2010; Munoz and Towner, 2009; Selwyn, 2009; Lockyer and Patterson, 2008; Mathews, 2006). Suraya et. al. (2010) argue that there are four basic functions of the learning activities that can be implemented via social media. Figure 1 shows these functions:

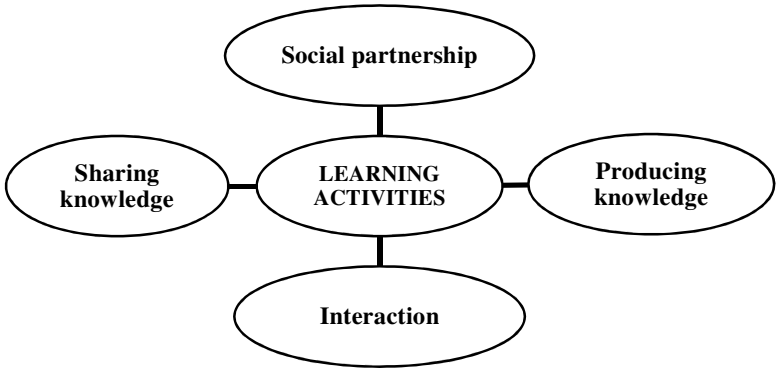

Figure 1 Basic functions of learning activities implemented via social media

The basic functions of these learning activities given in Figure 1 can be explained as follows:

a. **Producing knowledge:** based on their prior knowledge students may develop new knowledge or new ideas and may report them in learning environment.
b. **Sharing knowledge:** Students may share their learning through social media and it makes their learning much deeper.
c. **Social partnership:** Students may develop partnership with other people via social media to identify problems and find solutions to them.
d. **Interaction:** In aninteractive process students take part in discussions with their peers. They may comment on several topics and discuss their comments.

Tim and Duven (2010) state that of Facebook users42% are at the age between 8 and 17 and that of these users 27% are at the age between 8 and 12. Given that these age groups are mostly students, Facebook may be employed as an education tool from primary school to university. Wright and Lawson (2005) argue that social media such as Facebook, Twitter, and Instagram are significant part of students' including undergraduate students' life. Previous studies suggest that digital teaching tools have positive effects on student attendance and performance. Voithofer (2007,cited in Munoz and Towner, 2009) states that student teachers should be aware of lecture notes shared through social media.Such activities have contributed to the comprehension of educational technologies and make student teachers aware of educational use of technology. In short, social media provide its users an opportunity to improve their learning via formal and informal ways such as sharing, partnership, involvement, creativity, interactions (Lucas and Moreira, 2009).

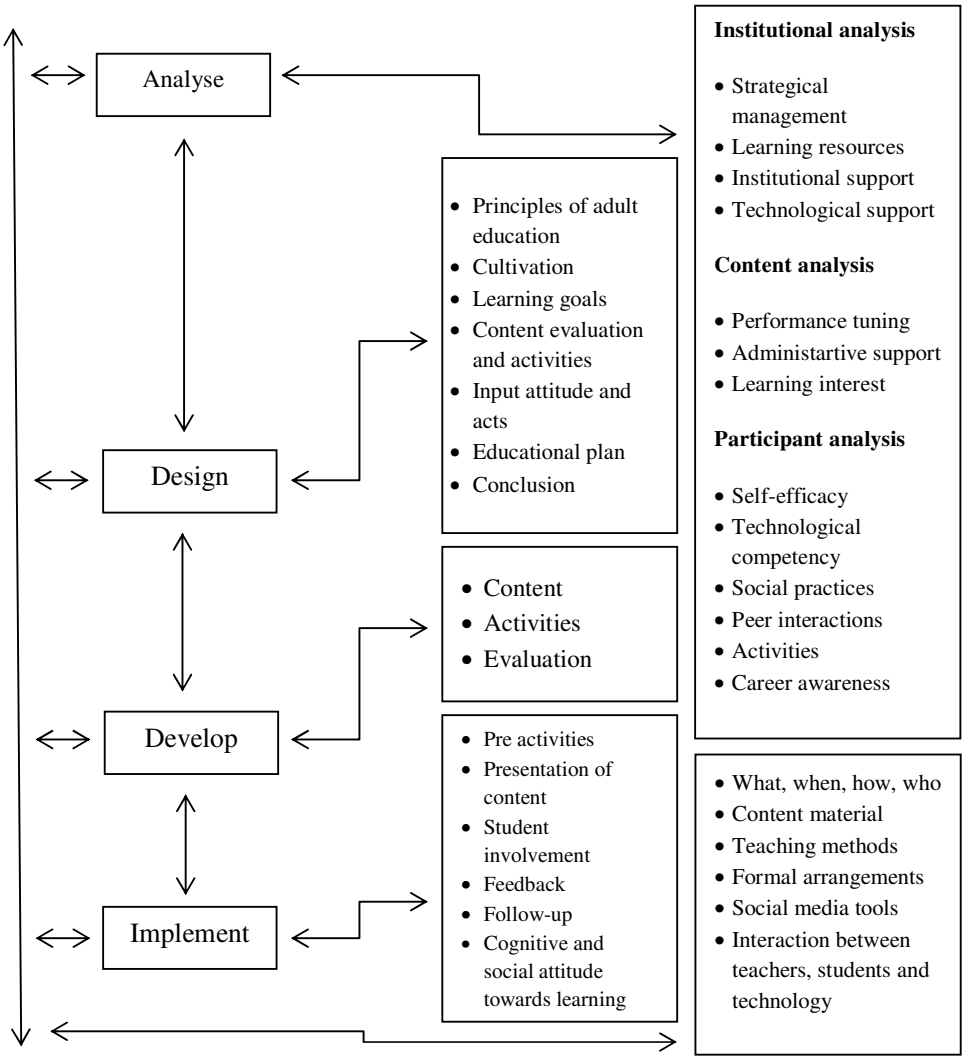

Figure 2 Social media based learning model

In the course of social studies social media may offer invaluable opportunities to improve student learning. This course provides students an opportunity to develop new and significant information, skills and values.The course gives students information about their society in terms of sociology, history, geography, culture and economy and values and skills of efficient citizenship (Çengelci, 2011). In terms of gains, values, skills the course of social studies contains topics closely related to society. One of the major communication tools for today's people is social media. These communication tools improve communicative skills, increase involvement and social cohesion, make it easier to access for peer support and encourage cooperative learning.

Researches suggest that social media offer invaluable educational opportunities. Michikyan, Subrahmanyam and Dennis (2015) analysed the use of Facebook by 261 undergraduate students in terms of time spent andcontent shared. It was found that students share their academic experience,exchange academic information and share documents.All these activities indicate that Facebook provide its users an opportunity to improve their academic base. Junco (2012) analysed the use of Facebook by 1839 undergraduate students in terms of time spent for socialization and time spent for academic activities. In the study relationships between time spent on Facebook and grade average. The findings showed that if Facebook was used for other purposes other than education, it negatively affected the grades of the participants. However, if Facebook was used for educational purposes, it had positive effects on the grades of the participants. Barış and Tosun (2013) implemented the activity of e-portfolio on Facebook and found that the activity had positive effects on student attitudes towards the course.

Acar and Yenmiş (2014) dealt with the views of forty students about the use of Facebook for educational purposes. They concluded that the participants had positive views about the use of Facebook in terms of communication, partnership, content and material sharing and innovations in education. They also had positive views about their interactions with teachers on Facebook.Baran (2010) analysed a distance course for twelve weeks with 32 graduate students on Facebook. During the implementation the students participated in educational activities such as document, video, links, and picture sharing and developing e-library. It was found that student attendance was 90% and that they shared both documents and other sources. They also motivated and helped one another. The participants reported that the course was positive in terms of student-teacher and student-student communication and interactions. It was also found that the course improved both teaching and learning at the rate of 75%. Sidekli and Avaroğulları (2013) analysed the effects of the use of Facebook based teaching on the learning of topics covered in the course of social studies. The participants were the fourth grade students. In the experiement group

there were fifteen students and in the countrol group there were seventeeen students. The study showed positive effects for the experiment group.Toğay (et. al., 2013) analysed social media based learning setting in a course with 60 undergraduate students for a semester.The findings showed that the use of social media based learning process improved student learning, faciliated the learning process and had positive effects on the teaching process.

There are studies about the student views on the use of social media for educational purposes.However, the use of social media or Facebook in the course of social studies has not been analysed with a specific reference to the course of social studies. In addition, there is no scale about the use of Facebook in the course of social studies.Therefore, this study aims at developing a Likert-type scale, namely social studies edution with Facebook (SSEF), about the attitudes of social studies teachers towards the use of Facebook in education.It also attempts to reveal the attitudes of the classroom teachers towardsFacebook and social studies teaching based on some variables (i.e., gender, age, professional experience, educational background)using the SSEF.

The Study

The data of the study were collected through the SSEF. The scale was developed following these steps: review of the related studies; review of the goals stated fro the fourth grade social studies course in terms of the use of Facebook; items were developed.Seven field specialists analysed the scale in terms of content validity. The feedback of the specialists was evaluated based on content validity rate (CVR) for each item.Then, based on the mean CVR the overall content validity index (CVI) was found.This index is used to see whether or not reviewers consider each item to be covered in the scale (Yurdugül, 2005). Given that there were seven reviewers, those items with CVR value of more than 0,75 were regarded as suitable (Yurdugül, 2005). It was found that the items met the criterion of content validity. Then the scale was employed to determine the attitudes of the participants about Facebook.

The participants of the study were 202 classroom teachers (the sample of the study) working at public schools in Afyonkarahisar. They voluntarily participated in the study. The characteristics of the participants are given in Table 1.

Table 1
Characteristics of participants

		n	%
Gender	Male	123	60,9
	Female	79	39,1
	Total	202	100,0
Educational background	Two-year higher education	19	9,4
	Undergraduate	173	85,6
	Graduate	10	5,0
	Total	202	100,0
Age	22-30	60	29,7
	31-40	55	27,2
	41-50	69	34,2
	51 +	18	8,9
	Total	202	100,0
Professional experience	1-5 years	43	21,3
	6-10 years	35	17,3
	11-15 years	25	12,4
	16-20 years	45	22,3
	21 + years	54	26,7
	Total	202	100,0

The data were collected during the spring semester of the 2014-2015 school year. The scale developed in the study, the SSEF, is consisted of two sections. The first section includes items about demographical characteristic of the participants. The second section contains thirty-seven items about potential learning activities using Facebook in the course of social studies.

The factor pattern of the SSEF was analysed using the first and second order confirmatory factor analysis. Confirmatory factor analysis is used to see whether or not a factorial pattern is consistent with the data. It defines either a pattern based on experimental data or a theoretical pattern (Sümer, 2000). In confirmatory factor analysis many consistency indexes are employed. Of them those frequently usedare (Cole, 1987; Sümer, 2000)Chi-Square Goodness test (χ^2), Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), Non-Normed Fit Index (NNFI), Normed Fit Index (NFI), Goodness of Fit Index (GFI). The indicators for perfect fit are $X2/d<3$; $0<RMSEA<0.05$; $0.97\leq NNFI\leq 1$; $0.97\leq CFI\leq 1$; $0.95\leq GFI\leq 1$ ve

0.95≤NFI≤1. The indicators for the acceptable fit are 4<X2/d<5; 0,05<RMSEA<0.08; 0.95≤NNFI≤0.97; 0.95≤CFI≤0.97; 0.90≤GFI≤0.95 ve 0.90≤NFI≤0.95 (Kline, 2005; Sümer, 2000). Concerning the reliability of the scalethe Cronbach alpha coefficient was calculated.

Findings

This section presents the findings about the validity and reliability of the scale and the findings about the attitudes of the participants towards the use of Facebook based on some variables.

Findings about validity and reliability of the scale

As stated about, confirmatory factor analysis was employed to established the validity of the scale.At the end of the first confirmatory factor analysis it was found that there was no item with nonsignificant t values. Therefore, no item was excluded from the scale. Related path diagram is given in Figure 1.

The fit indexes found are as follows: χ^2=3006.05, X^2/sd= 4.83, RMSEA=0.078, CFI=0.96, NFI=0.95, NNFI=0.95 ve IFI=0.96. All coefficients are sufficient. Therefore, the findings of the confirmatory factor analysis showed that the scale was in a good fit with the data collected.

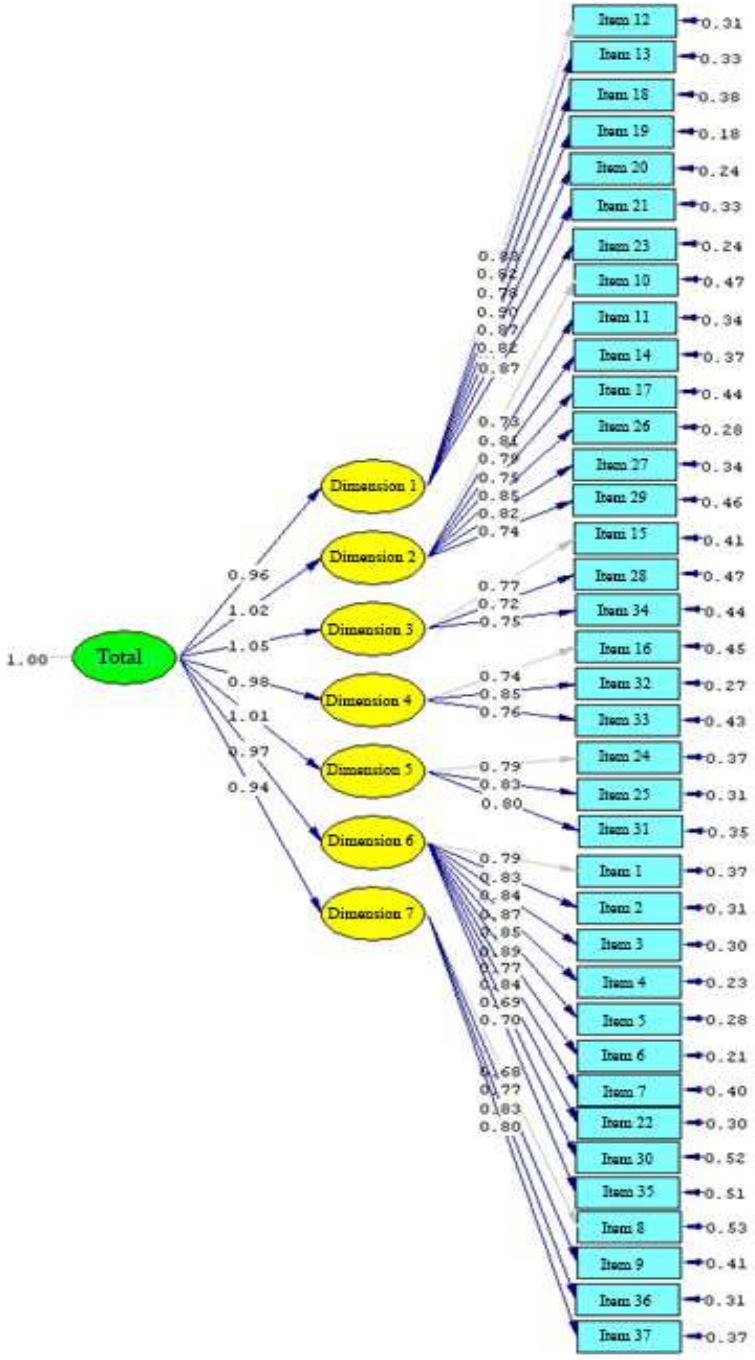

Figure 3 Path Diagram of the scale

The dimensions of the scale were developed based on the units covered in the educational program for the course of social studies.Table 2 shows the dimensions of the scale and the content of these dimensions:

Table 2
Dimensions and related units

Dimensions	Related units
Dimension 1: Cultural inheritance	Unit 2: I am learning my past
Dimension 2: Our country and the world	Unit 3: the place where we live
	Unit 8: My Remote Friends
Dimension 3: Occupations and production	Unit 1: I am learning myself
	Unit 4: from production to consumption
Dimension 4: Science and society	Unit 5: Happily it exists
Dimension 5: Social responsibility and citizenship	Unit 6: All together
	Unit 7: people and administration
Dimension 6: Generalitems	All of the units
Dimension 7: Evaluative items	Evaluations of activities

Table 2 shows that the SSEF has seven dimensions. First 5 dimensions about social studies programme's units; The sixth dimension, general items is about applications can be performed for each unit; The items for the evaluation of the practices in "evaluative items". Dimensions, item numbers and total number of items can be seen in Table 3.

Table 3
Items numbers and total number of items in the dimensions

Dimensions	Item numbers	Total number of items
Dimension 1: Cultural inheritance	12, 13, 18, 19, 20, 21, 23	7
Dimension 2: Our country and the World	10, 11, 17, 26, 27, 14, 29	7
Dimension 3: Occupations and production	28, 34, 15	3
Dimension 4: Science and society	16, 32, 33	3
Dimension 5: Social responsibility and citizenship	24, 25, 31	3
Dimension 6: General items	1, 2, 3, 4, 5, 6, 7, 22, 30, 35	10
Dimension 7: Evaluative items	8, 9, 36, 37	4

Table 4 shows both regression values and t values of items.

Table 4
Regression values and t values of items

Items	Regression values	t values	Items	Regression values	t values
m12	0,83	14,69	m33	0,76	11,03
m13	0,82	14,24	m24	0,79	13,01
m18	0,78	13,38	m25	0,83	13,89
m19	0,90	16,81	m31	0,80	13,24
m20	0,87	15,83	m1	0,79	12,26
m21	0,82	14,28	m2	0,83	13,57
m23	0,87	15,83	m3	0,84	13,82
m10	0,73	10,49	m4	0,87	14,66
m11	0,81	12,04	m5	0,85	14,08
m14	0,79	11,73	m6	0,89	15,07
m17	0,75	11,00	m7	0,77	12,41
m26	0,85	12,59	m22	0,84	13,82
m27	0,82	12,06	m30	0,69	10,75
m29	0,74	10,83	m35	0,70	10,88
m15	0,77	13,11	m8	0,68	9,26
m28	0,72	11,83	m9	0,77	10,04
m34	0,75	12,27	m36	0,83	10,74
m16	0,74	10,75	m37	0,80	10,36
m32	0,85	12,63			

Table 4shows that both regression coefficients and t values are significant and the model is confirmed.

Reliability analysis

In order to establish the reliability of the scale the Cronbach alpha coefficient was calculated. The Cronbach alpha coefficients for the dimensions are found as follows: for the first dimension .94; for the second dimension .91;for the third dimension .78;for the fourth dimension .89;for the fifth dimension .88; for the sixth dimension .95 andfor the seventh dimension .88. The overall Cronbach alpha coefficient is found to be.98. Tezbaşaran (1997: 47) argues that sufficient Cronbach alpha coefficient for Likert-type scales should be close to 1.Therefore, it can be suggested that the scale developed has a higher level of reliability.

Findings about the attitudes of the participants towards the use of Facebook based on some variables

The data obtained through the SSEF were analysed based on gender, age, educational background and professional experience.In the data analysis the SPSS 20 was employed. Before the analysis the distribution of the data was analysed in terms of normality. Based on the findings obtained from the normality test those data with abnormal distribution were analysed through the Mann-Whitney U test for pairwise comparisons and throughthe Kruskall-Wallis H test for triple or multiple comparisons. The significant level was set at 0,05.The distribution of the test scores of the participants based on gender is given in Table 5 below:

Table 5
Distribution of scores based on gender

		Gender						Mann-Whitney U test		
		n	Mean	Median	Min	Max	Sd	Mean rank	U	p
Cultural inheritance	Female	123	19,04	19,00	7,00	35,00	8,21	102,44	4743	0,775
	Male	79	18,76	18,00	7,00	35,00	7,85	100,04		
Country and the world	Female	123	19,70	20,00	7,00	35,00	7,82	103,49	4613,5	0,545
	Male	79	19,04	20,00	7,00	35,00	7,69	98,40		
Occupations and production	Female	123	7,98	8,00	3,00	15,00	3,32	103,90	4363,5	0,465
	Male	79	7,68	7,00	3,00	15,00	3,42	97,77		
Science and society	Female	123	8,22	9,00	3,00	15,00	3,59	103,03	4670,5	0,641
	Male	79	8,00	8,00	3,00	15,00	3,66	99,12		
Social responsibility and citizenship	Female	123	8,65	9,00	3,00	15,00	3,66	100,51	4736,5	0,762
	Male	79	8,78	9,00	3,00	15,00	3,60	103,04		
General items	Female	123	28,57	31,00	10,00	50,00	11,53	102,75	4704,5	0,704
	Male	79	28,00	28,00	10,00	50,00	11,52	99,55		
Evaluative items	Female	123	10,25	10,00	4,00	20,00	4,73	103,72	4586	0,499
	Male	79	9,71	10,00	4,00	20,00	4,70	98,05		
Total	Female	123	102,41	104,00	37,00	185,00	40,66	103,31	4636	0,583
	Male	79	99,97	99,00	37,00	185,00	39,50	98,68		

Table 5 indicates that the test scores of the participants did not significantly vary based on gender($p>0,05$).

Table 6
Distribution of scores based on educational background

		Educational background							Kruskall-Wallis H test	
		n	Mean	Median	Min	Max	sd	Mean rank	H	p
Cultural inheritance	Two-year higher edu.	19	19,95	17,00	7,00	35,00	9,16	106,76	0,172	0,918
	Undergarduate	173	18,82	18,00	7,00	35,00	7,95	100,92		
	Graduate	10	19,00	19,00	7,00	34,00	8,46	101,55		
Country and the World	Two-year higher edu.	19	20,95	20,00	7,00	35,00	8,85	110,95	0,588	0,745
	Undergarduate	173	19,26	20,00	7,00	35,00	7,66	100,32		
	Graduate	10	19,70	19,50	9,00	34,00	7,62	104,05		
Occupations and production	Two-year higher edu.	19	8,58	8,00	3,00	15,00	3,40	112,53	1,789	0,409
	Undergarduate	173	7,74	8,00	3,00	15,00	3,35	99,30		
	Graduate	10	8,70	10,00	3,00	13,00	3,47	118,55		
Science and society	Two-year higher edu.	19	8,58	9,00	3,00	15,00	4,02	109,74	0,853	0,653
	Undergarduate	173	8,12	8,00	3,00	15,00	3,58	101,32		
	Graduate	10	7,50	7,00	3,00	15,00	3,57	88,90		
Social responsibility and citizenship	Two-year higher edu.	19	9,58	10,00	3,00	15,00	3,75	115,08	1,162	0,559
	Undergarduate	173	8,62	9,00	3,00	15,00	3,62	100,23		
	Graduate	10	8,50	9,00	3,00	15,00	3,75	97,60		
General items	Two-year higher edu.	19	30,42	35,00	10,00	49,00	13,41	113,79	1,071	0,585
	Undergarduate	173	28,05	28,00	10,00	50,00	11,25	99,83		
	Graduate	10	29,50	32,50	10,00	49,00	12,75	107,00		
Evaluative items	Two-year higher edu.	19	10,58	10,00	4,00	20,00	5,46	106,71	0,173	0,917
	Undergarduate	173	10,00	10,00	4,00	20,00	4,66	101,03		
	Graduate	10	9,70	10,50	4,00	19,00	4,76	99,80		
Total	Two-year higher edu.	19	108,63	99,00	37,00	183,00	44,40	109,24	0,418	0,811
	Undergarduate	173	100,61	102,00	37,00	185,00	39,68	100,46		
	Graduate	10	102,60	110,00	41,00	179,00	42,43	104,75		

Table 6 shows that the educational background of the participants did not have any significant effect on the test scores of the participants (p>0,05).

Table 7
Distribution of scores based on age

		Age						Kruskall-Wallis H test		
		N	Mean	Median	Min	Max	Sd	Mean rank	H	p
Cultural inheritance	22-30	60	18,67	17,50	7,00	35,00	7,18	100,37	3,89	0,273
	31-40	55	18,05	18,00	7,00	35,00	8,06	95,19		
	41-50	69	18,94	19,00	7,00	35,00	8,42	101,07		
	51 +	18	22,44	24,00	7,00	35,00	9,09	126,22		
Country and the world	22-30	60	20,08	20,00	7,00	35,00	7,00	106,72	4,2	0,241
	31-40	55	17,89	19,00	7,00	34,00	7,31	90,28		
	41-50	69	19,54	19,00	7,00	35,00	8,39	101,24		
	51 +	18	21,67	23,00	7,00	34,00	8,64	119,39		
Occupations and production	22-30	60	7,93	8,00	3,00	15,00	2,84	104,42	2,68	0,442
	31-40	55	7,36	7,00	3,00	15,00	3,40	92,37		
	41-50	69	7,91	8,00	3,00	15,00	3,47	102,38		
	51 +	18	9,00	8,50	3,00	15,00	4,24	116,31		
Science and society	22-30	60	8,38	9,00	3,00	15,00	3,24	106,44	2,4	0,494
	31-40	55	7,69	8,00	3,00	15,00	3,49	94,26		
	41-50	69	8,04	8,00	3,00	15,00	3,93	99,36		
	51 +	18	9,00	9,00	3,00	15,00	3,88	115,33		
Social responsibility and citizenship	22-30	60	8,67	9,00	3,00	15,00	3,25	100,68	4,22	0,238
	31-40	55	8,11	9,00	3,00	15,00	3,55	91,85		
	41-50	69	8,88	9,00	3,00	15,00	3,84	104,18		
	51 +	18	9,94	11,00	3,00	15,00	4,11	123,42		
General items	22-30	60	28,73	28,00	10,00	50,00	9,93	102,78	3,01	0,391
	31-40	55	26,36	27,00	10,00	47,00	11,30	91,36		
	41-50	69	28,86	31,00	10,00	50,00	12,23	104,67		
	51 +	18	31,17	34,50	10,00	49,00	13,95	116,06		
Evaluative items	22-30	60	10,23	10,00	4,00	20,00	4,40	104,73	4,3	0,231
	31-40	55	9,13	9,00	4,00	20,00	4,36	89,85		
	41-50	69	10,17	10,00	4,00	20,00	5,01	103,11		
	51 +	18	11,67	12,00	4,00	20,00	5,40	120,17		
Total	22-30	60	102,70	99,50	37,00	185,00	34,72	103,76	3,47	0,325
	31-40	55	94,60	97,00	37,00	178,00	38,28	91,52		
	41-50	69	102,35	105,00	37,00	185,00	43,59	102,75		
	51 +	18	114,89	120,00	37,00	183,00	47,42	119,69		

Table 7 indicates that the age of the participants did not have significant effects on their test scores (p>0,05).

Table 8
Distribution of scores based on professional experience

		Professional experience						Kruskall-Wallis H test			
		N	Mean	Median	Min	Max	Sd	Mean rank	H	p	Compar-ison
Cultural inheritance	1-5 years	43	19,81	20,00	7,00	35,00	6,37	109,74	8,8	0,067	-
	6-10 years	35	17,83	17,00	7,00	34,00	8,07	91,91			
	11-15 years	25	16,88	17,00	7,00	35,00	8,09	87,56			
	16-20 years	45	17,33	18,00	7,00	35,00	8,17	90,17			
	21 + years	54	21,22	22,00	7,00	35,00	8,73	117,05			
Country and the world	1-5 years	43	21,02	21,00	7,00	35,00	6,20	113,74	10,8	0,029	1-2
	6-10 years	35	18,43	19,00	7,00	34,00	7,09	93,10			1-3
	11-15 years	25	16,48	17,00	7,00	32,00	7,42	81,36			1-4
	16-20 years	45	17,89	18,00	7,00	34,00	8,35	89,92			5-2
	21 + years	54	21,50	22,00	7,00	35,00	8,33	116,17			5-3 5-4
Occupations and production	1-5 years	43	8,33	8,00	4,00	15,00	2,53	111,81	9,9	0,043	1-2
	6-10 years l	35	7,26	8,00	3,00	15,00	3,00	92,01			1-3
	11-15 years	25	6,84	7,00	3,00	13,00	3,35	83,22			1-4
	16-20 years	45	7,29	7,00	3,00	15,00	3,57	91,02			5-2
	21 + years	54	8,85	9,00	3,00	15,00	3,73	116,63			5-3 5-4
Science and society	1-5 years	43	8,91	9,00	3,00	15,00	2,91	115,70	9,4	0,052	-
	6-10 years	35	7,51	7,00	3,00	15,00	3,44	90,40			
	11-15 years	25	6,96	7,00	3,00	13,00	3,51	83,88			
	16-20 years	45	7,60	8,00	3,00	15,00	3,68	92,40			
	21 + years	54	8,91	9,00	3,00	15,00	4,00	113,13			
Social responsibility and citizenship	1-5 years	43	9,05	10,00	3,00	15,00	2,98	106,59	11,2	0,024	1-2
	6-10 years	35	8,11	8,00	3,00	15,00	3,33	91,34			1-3
	11-15 years	25	7,56	7,00	3,00	15,00	3,54	83,30			1-4
	16-20 years	45	8,00	8,00	3,00	15,00	3,95	91,33			5-2
	21 +years	54	9,93	11,00	3,00	15,00	3,78	120,93			5-3 5-4
General items	1-5 years	43	29,98	29,00	13,00	50,00	9,47	109,94	9,9	0,042	1-2
	6-10 years	35	25,89	26,00	10,00	49,00	10,25	87,83			1-3
	11-15 years	25	26,16	26,00	10,00	47,00	11,48	90,44			1-4
	16-20 years	45	26,18	27,00	10,00	48,00	11,90	90,06			5-2
	21 + years	54	31,46	35,00	10,00	50,00	12,79	118,30			5-3 5-4

Evaluative items	1-5 years	43	10,93	10,00	4,00	20,00	3,94	114,20	12,2	0,016	1-2
	6-10 years	35	9,57	8,00	4,00	20,00	5,13	94,03			1-3
	11-15 years	25	8,04	8,00	4,00	17,00	3,36	77,50			1-4
	16-20 years	45	9,18	9,00	4,00	20,00	4,66	90,40			5-2
	21 + years	54	11,28	12,00	4,00	20,00	5,22	116,59			5-3 5-4
Total	1-5 years	43	108,02	106,00	48,00	185,00	31,14	112,13	10,4	0,034	1-2
	6-10 years	35	94,60	88,00	37,00	179,00	36,54	89,99			1-3
	11-15 years	25	88,92	88,00	38,00	172,00	37,59	84,68			1-4
	16-20 years	45	93,47	97,00	37,00	178,00	42,86	90,57			5-2
	21 + years	54	113,15	116,00	37,00	185,00	44,53	117,40			5-3 5-4

Table 8 shows that professional experience had significant effects on the test scores of the participants. More specifically, those classroom teachers with a professional experience of 1-5 years and those with a professional experience of 21+ years had higher test scores ($p<0,05$).

Discussion and Conclusions

The studies about the educational use of social media and facebook have been carried out with students. However, there is no such study using a group of teachers. In addition, there is no specific scale to measure the attitudes of teachers towards the use of Facebook in the course of social studies. Therefore, in the study a Likert-type scale to measure the attitudes of teachers towards the use of Facebook in the course of social studies, namely the SSEF, was developed. The study was designed as a mixed research and both quantitative and qualitative data were employed in the study. The participants of the study were 202 teachers. The steps followed in the development of the scale are as follows: development of the theoretical framework; development of item pool; review of the scale by the specialists; statistical analyses for the validity and reliability of the scale. In the last step the following statistical techniques were employed: item analysis,explanatory and confirmatory factor analysis, the Cronbach's Alpha coefficient. The analyses showed that theSSEF has seven dimensions (cultural inheritance, our country and the world, professions and production, science and society, social responsibility and citizenship, general items, evaluative items) and 37 items. Concerning the reliability the Cronbach alpha coefficient was calculated. The Cronbach alpha coefficients for the dimensions are found as follows: for the first dimension .94; for the second dimension .91; for the third dimension .78; for the fourth dimension .89; for the fifth dimension .88; for the sixth dimension .95 and for the seventh dimension .88. The overall Cronbach alpha coefficient is found to be .98. Tezbaşaran (1997: 47) argues that sufficient Cronbach alpha coefficient for Likert-type scales should be close to 1. Therefore, it can be suggested that the scale developed has a higher level of reliability.

The data obtained through the SSEF were analysed based on gender, age, educational background and professional experience. In the data analysis the SPSS 20 was employed. Before the analysis the distribution of the data was analysed in terms of normality. Based on the findings obtained from the normality test those data with abnormal distribution were analysed through the Mann-Whitney U test for pairwise comparisons and through the Kruskall-Wallis H test for triple or multiple comparisons. The significant level was set at 0,05.

The findings obtained showed that the variables of gender, age, educational level, professional experience did not have significant effects on the dimensions on the scale. However, the variable of professional experience significantly affected the scores for the dimensions of our country and the world, occupations and production, social responsibility and citizenship, general items and evaluative items. More specifically, those classroom teachers with 1-5 years and 21+ years of professional experience had higher scores in the dimensions mentioned above.

The use of social media is one of the important activities in education. Therefore, teachers should be equipped with necessary skills and competencies to use social media in learning activities. To this end in-service training activities may include the related topics to provide teachers with an opportunity to follow innovations in education. Similarly, in the teacher training programs such topics can be covered in different courses. On the other hand, the use of social media such as Facebook, Twitter, Instagram for educational purposes in different courses can be analysed using both quantitative and qualitative research methods.

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