International Online Journal of Educational Sciences, 2019, 11 (1), 319-333

iojes
www.iojes.net

International Online Journal of Educational Sciences

ISSN: 1309-2707

Validity and Reliability Study on High School Students' Attitude Scale Towards Historical Place[1]

Research Article

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To cite this article: Berk, N., Gultekin, F. (2019). Validity and Reliability Study on High School Students' Attitude Scale Towards Historical Place, *International Online Journal of Educational Sciences*, 11(1), 319-333.

ARTICLE INFO

Article History:
Received 20.11.2018

Available online:
05.02.2019

ABSTRACT

The purpose of this study is to develop a scale tool to measure the attitude of the tenth-grade students in high school towards a historical place. The final form of the scale, consisting of twenty-four items, was applied to three hundred and fifty tenth-grade students in three high schools in Adana city center. One hundred eighty-one of these students were girls whereas one hundred seventy of them were boys. The rotated principal component analysis was used to get information on the validity of the scale through the obtained data. The result of this analysis showed that the scale had a structure with four sub-factors. These sub-factors were called by researchers as "valuing historical places, curiosity towards/special interest in historical places, indifference to historical places, awareness of historical places". An exploratory factor analysis was conducted to reveal the construct validity of the scale. As a result of the analysis, the reliability coefficient of the scale (Cronbach Alfa) turned out to be .85.As a result of the confirmatory factor analysis, root mean square error approach (RMSEA) was detected as 0.068; standardized root mean square residual (RMR) as 0.073; goodness of fit index (GFI) as 0.87; adjusted goodness of fit index (AGFI) as 0.84; normed fit index (NFI) as 0.91; comparative fit index (CFI) as 0.95 and non-normed fit index (NNFI) as 0.96. Consequently, it is possible to say that the attitude scale towards the historical place designed for the tenth-grade high school students can be used to determine the positive and negative attitudes of the tenth grade students towards historical places.

Keywords:
Historical Place, Attitude, Scale, Validity, Reliability, High School Tenth Grade Students

Introduction

The lives and behaviors of people evolve through the web of memories and identities about their surroundings. An identity can be formed through understanding social and environmental values of any community, as well as the relationship between people and the environment (Cheshmehzangi and Heat, 2012).

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DOI: https://doi.org/10.15345/iojes.2019.01.020

When a place interacts with a human, the space develops an original and alive meaning whereas the person develops a unique and vibrant sense of space (Lim, 2010). The sense of space plays a key role in the cultural context by unifying the user and space (Mohammad, Saruwono, Said and Hariri, 2013).

Emotional attachment to spaces shows that spaces have the capability of meeting the psychological needs of people using that space (Ujang, 2016). A strong sense of attachment to a specific place is affected by race, ethnicity or class identity (Rose, 1995, transferred by Ujang, 2012). Temples, for example, are sacred places that are peculiar to a belief or accepted by a few religions, and they can affect the individuals through religious identity or belief system and lead to a state of strong commitment.

Considering the relation between the individual and place, and the impact of this relation on the development of the individual, using places as a means in the education system, in other words place-based learning concept seems possible.

A place-based approach reintroduces teachers and students to environments and communities that make living and learning possible and valuable. If learning is to be carried out through concrete examples, local environments offer a lot of opportunities for the field work of a wide range of historical, social and environmental concepts. Field experiences increase opportunities for exploring complex relations such as deep, interdisciplinary learning and interactions between social, physical and biological environments. The temporal and spatial analysis of local phenomena also leads to exploring new places in the future and to questions regarding what will happen to societies and their environments in the future (Gruenewald, Koppelman and Elam, 2007).

Museums are a good example of place-based learning. Falk and Dierking (2000) suggest that museums are important in ensuring social unity. Museums are places where free choice is possible for individuals and that have a lifelong learning function in fitting into society. In this respect, historical places can be given as another example. Surveys point out the fact that distinctive symbolic and spiritual characteristics of the historical places are reflected upon the feelings and emotions of the people in that city. In addition, a place's identity develops in parallel with being occupied with that place, having a deep social interaction with it, taking pride in it and feeling a sense of belonging to it (Ujang, 2016). The use of historical places leads to the development of historical empathy that enables us to understand how people felt and made decisions in the past, and how things resulted in a particular historical and social context.

Over the course of the history, there have been events that people found more important and exchanged more or thought they should be exchanged more, even if this changes according to civilizations, states and times. So, what is the answer to this question: *"What are the factors that enable people attach importance to some historical events?"* Of course, there are a lot of answers to this question One of these answers must be the impact of the place in which someone is in on the individual. In other words, history has an impact on where "the learning" and "the teaching" generation are positioned, and which events are considered significant. As a matter of fact, it is stated that the perceptions regarding historical places are influenced by factors such as cultural values, beliefs, world views and personal tastes (Ozturk, 2014). For example; the fact that the Battle of Malazgirt (Manzikert) is associated with the adoption of Anatolia as home country, and the declaration of Anatolia as the absolute home country of Turks upon the Battle of Miryakefalon can be counted among the signs of this influence. It would not be wrong to say that these examples are built up exclusively for "Anatolia" in the history education and that they are considered more important pursuant to the acquisition of our lands today. Similarly, it is possible to say that acquisition of new lands and places, or the desire not to lose acquired lands have an impact in the fact that wars are told more frequently than peace. Also, it is unlikely to tell notable events in the history of mankind without referring to places and associating them with the changes in those places. Looking back at the Turkish history, goals such as acquiring a homeland and dominating a homeland are in question in the events people remember and care about. This is an understanding of place in the history

in which the past is led by the present. On the other side, there is another understanding of place in which the past leads the present and makes it more understandable. In this second understanding, the notion of *"historical place"* emerges.

A historical place is considered as *"historic buildings where people in the past constructed for making art or utilization, or places where historical events happened"* (Ata, 2002). In this respect, two kinds of historical place concept emerge: *'a built structure'* and a *'land where historical events happened and/or left their marks'*. The first one, "a built structure" (mosque, madrasa, monumental tombs, fountains, bridges, etc.) is significant as it reflects the understanding of the period. For example; The Green Madrasa, which is used as the Museum of Turkish Islamic Works of Art in Bursa today, is remarkable as it reflects the architectural and educational approach of the establishment period of Ottoman Empire. This is a place where people lived in the past. Also, it is a place visited by individuals who are considered important in Turkish history (e.g. 1st Mehmet- Çelebi). Therefore, this kind of a historical place is not significant directly because it hosted a specific historical event, but rather it is significant because it is a historical place that can give us thematic information regarding a period and help us better understand the relevant theme (of course, ignoring that it is used as a museum today ...). The second one, the concept of land where historical events happened and left their marks, is significant because it reflects the atmosphere of the event and makes the event more understandable. For example; visiting the land on which the Battle of Sakarya took place is valuable in terms of understanding the strategy of war, assessing the truth of the events told and establishing a historical empathy.

The starting point of this study was the fact that the methods applied in the researches on historical places were not effective enough as students' attitude about the historical place was unknown, and also the thought that practices regarding historical places should positively affect the attitude towards these places. This thought emerged from researchers' need for an understanding during their works on historical places in 2015 which is the year when the idea of research was born. Until 2015, perspectives towards historical places and their impact on historical information was discussed in studies on historical places (Meydan and Akkus, 2014, 2013; Yesilbursa and Uslu, 2014; Yesilbursa, 2014, 2008, 2006); attitude scales were developed with regard to historical places in general terms (Denis, Genc and Demirkaya, 2008). However, there was no research regarding the attitude toward historical places. Recently, there has been some studies regarding utilization of historical places and perceptions about these places (Uztemir, Dinc and Acun, 2018a, 2018b; Kirikci and Yilmaz, 2017; Yesilbursa, 2015; Oner, 2015). Even so, there is still no attitude scale study developed for historical places to fill the gap mentioned above. In this respect, it is thought that the development of a tool which can be used to include attitude towards historical places as a variable in efficiency assessment of the trainings, such as trips, observation, out-of-class history education, and the application of proximodistal principle on historical places, shall make a contribution to the field.

In this research, our goal is to develop an attitude scale for historical places and we present validity and reliability studies of this scale in this respect.

Method

In the relevant literature, the attitude is explained as follows: *"it consists of a set of emotions, the thing that is liked and disliked, behavioral objective, opinion and thoughts"* (Hogg and Voughan, 2014). It is stated that attitudes predict behavior at a minimum level, the attitude is specific to behavior and the behavior emerges when the attitude is strong. In social psychology, which is an area where attitude measurements are often made to reduce the impact of the relevant effects, self-expression scales and implicit attitude scales, which are based upon traditional expressions, are used together (Myers, 2015). However, the impact on expressing the attitude is slight as the subject of the research does not question the personal life and it aims to understand the overall disposition, and for this reason, data collection tool has been designed in the form of self-expression scale. Considering that attitudes have cognitive, emotional and behavioral elements (Crites, Fabrigar and Petty,

1994; transferred by Taylor, Peplou and Sears, 2015) and that it is convenient to prepare scale questions aiming to identify attitudes in the form of question structures qualified as judgment questions (Aziz, 2013), scale questions have been prepared to accommodate these elements and structure.

The stages of "Attitude Scale Towards Historical Place" development study and the characteristics of the study group are presented below.

Study Group

The study group of this research is composed of 351 tenth-grade students studying in three high schools (Lokman Hekim Anatolian High School, Feyyaz Etiz Anatolian High School, Ismail Sefa Ozler Anatolian High School) which sustain their educational operations in the central districts of Adana province. There are 36 items in the preliminary test form. So, the number of students included in the study group is about ten times the number of items in the preliminary test form. Descriptive statistics for the study group on which the scale study is conducted are given in Table 1.

Table 1. Information regarding the students in the study group

Gender	Percent (%)	Frequency (f)
Female	52	181
Male	48	170
Total	100	351

One hundred eighty-one of the students in the study group are female and one hundred and seventy of them are male, and all of them are studying in the tenth grade during 2016-2017 academic year.

Creating Item Pool and Receiving Expert Opinion

At this stage of the research, a literature scan was conducted regarding the attitude towards historical places and the measurement of attitude. Between June 1-5, 2015, in collaboration with the history teachers of the schools concerned, tenth-grade students (300 students) were asked to write an essay about their opinions regarding historical places. This was an effort to write the items of attitude scale towards historical place. Leveraging from student essays and the relevant literature, am item pool was prepared for the attitude scale towards historical place by the project team. While creating this item pool for the attitude towards historical place; the cognitive, emotional, and behavioral aspects of the attitude, the level and intensity of the attitude and the expression, content and intensity of attitude sentences etc. were taken into consideration. From this item pool, 40 items were submitted to experts to take their opinion.

Preliminary Test

The first draft form of scale consisting of 38-items was finalized in line with the expert opinions and applied to 120 students which were not included in the study group. The aim of this preliminary test was to check the understandability and suitability of draft scale for the students before it is used on the study group. Items misunderstood or not understood by students were removed from the scale. As a result of this effort, a new form was created consisting of 36-item.

Application of Preliminary Test Form to Study Group- Factor Analysis and Reliability Calculation Phase

This 36-item draft scale (designed upon taking expert opinions and preliminary test results) was applied to 351 tenth-grade students studying in three high schools (Lokman Hekim Anatolian High School, Feyyaz Etiz Anatolian High School, Ismail Sefa Ozler Anatolian High School) which sustain their educational operations in the central districts of Adana province. Factor analysis was performed based on the results of

this application and it was tried to ensure construct validity according to the analysis result. Factor analysis was applied to determine the construct validity of the scale and Varimax Rotation method was used. There was no restriction to the number of factors.

It is stated in the literature that factor loads ranging from 0.30 to 0.40 can be taken as the lower cut-off point in constructing the factor pattern (Buyukozturk, 2007). The lower cut-off point was accepted to be 0.33 in this study. As a result of the factor analysis, items below 0.33, the lower cut-off point, were eliminated from the scale. After all these adjustments, scale items were subjected to another evaluation through application of distinctiveness analyses based on total item score correlations. Prior to confirmatory factor analyses, a Cronbach Alpha reliability analysis was performed to determine the internal consistency coefficients of the scale.

At the final stage of validity and reliability efforts, a confirmatory factor analysis was conducted. In the study, exploratory factor analysis was used to test which variable groups were associated with which factor at a high level.

Table 2. Explanations, Item Examples and Total Number of Items Regarding Sub-dimensions of Attitude Scale Towards Historical Place

Sub-dimensions	Number of items	Item Examples
The factor of valuing historical places (F1)	9	I would like to touch historical remnants in that place when I walk around a historical place.
The factor of curiosity towards/special interest in a historical place (F2)	5	I follow up the news about historical places closely.
The factor of indifference to historical places (F3)	5	I do not participate in the trips organized to historical places unless it is compulsory.
The factor of awareness towards historical places (F4)	4	Before visiting a historical place, I would like to learn about that historical place.
Total number of items	23	

In order to provide evidence for the validity and reliability of the obtained data:

- Crα reliability to provide evidence of reliability,
- Item test correlations to provide evidence of item validity,
- *Kaiser-Meyer* to determine the compatibility of the data for principal component analysis *Olkin* (KMO) coefficient and *Barlett Sphericity test*,
- Factor analyses were conducted to provide evidence for construct validity (Kan and Akbas, 2005).

Findings

The findings regarding the validity and reliability of scale are as follows.

Findings regarding the validity of Attitude Scale Towards Historical Place

Scope Validity

Expert opinion has been consulted for the validity of attitude scale towards historical place. Upon developing the item pool of the scale, a form was created consisting of 40 items. 9 experts were consulted to

receive their opinion about the items in this form. These experts included 6 assistant professors/research assistants from the Department of History Teaching in Gazi University and one research assistant from the Department of Assessment and Evaluation in Education. After receiving expert opinions, a score chart was created from the answers of experts and their frequency distribution was identified. Each item found suitable by 75% of the experts was included in the scale. A 38-item form was prepared in line with the expert opinions and a scope validity study was carried out for the scale.

Construct Validity

After the scope validity study, the first draft of scale consisting of 38 items was applied to a group of 120 people. Items misunderstood or not understood by students were removed from the scale. As a result of this effort, a new form was created consisting of 36-item. The form consisting of 36 items applied to 351 students in three schools with different socio-economic levels. The construct validity of the first test form (36 items) was tested with exploratory factor analysis, subgroup and top group t-test for distinctiveness, and confirmatory factor analysis. Findings from these analyses are presented below in order.

Findings from Exploratory Factor Analysis

The Kaiser-Meyer-Olkin (KMO) test and the Bartlett's sphericity test were applied before the exploratory factor analysis to test the suitability of the data obtained from 351 students for factor analysis. As a result of the analysis, KMO value turned out to be 0.884 and the Bartlett sphericity test value turned out to be 2601.699 ($p = 0.000$). The fact that KMO value is above 0.80 indicates that it is good for factor analysis, and the fact that p value is meaningful in the Bartlett sphericity test ($p < 0.05$) indicates that the data is suitable for the factor analysis of the data (Hutcheson and Sofroniou, 1999).

In factor analysis with 36 items, varimax rotation method was used. If the factor load values for the items are below 0.33 and the difference between the factor load values of the items explained by two separate dimensions is less than 0.10, the relevant item is removed from the scale. As a result of the rotation process, the final form of 23 items was created from the 36-item preliminary test form. Figure 1 shows the latent value-component graph of the 23-item final form.

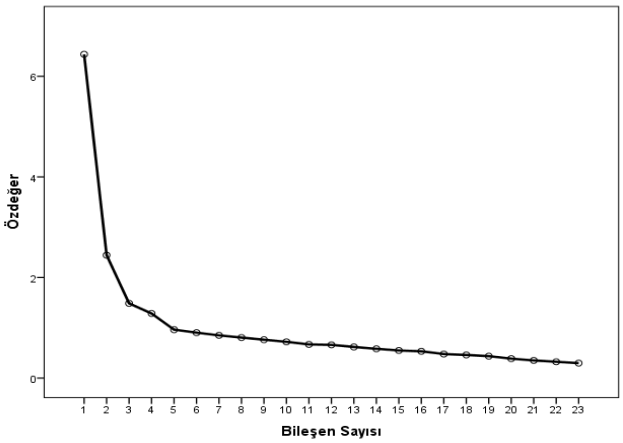

Figure 1. Latent Value-Component Graph

In line graph plotted in line with the latent values, it is observed there is a certain decline from the first factor to fourth factor whereas the decline in the latent values after the fourth factor is constant. Therefore, it is possible to say that the scale has a structure with four factors. Table 3 shows Latent Value-Declared Variance rates obtained for 23 items and 4 factors.

Table 3. Latent Value-Declared Variance Rate Table for the Attitude Scale Towards Historical Place

Factor	Latent value	Declared Variance	Total variance
1	6.438	27.993	27.993
2	2.444	10.624	38.617
3	1.485	6.455	45.072
4	1.284	5.584	50.656

In the analysis, the factor with the greatest latent value is four. Table 3 shows that the first factor constitutes 27.993%, the second factor constitutes 10.624%, the third factor constitutes 6.455% and the fourth factor constitutes 5.584% of the total variance. This 4-factor model constitutes 50.665% of the total variance. The factors must constitute more than 40% of the variance rate so that the construct validity of a multi-factor model is ensured (Tezbasaran, 1997).

The factor load values resulting from the rotation process applied to the items are given in Table 4.

Table 4. Results of the Rotated Principal Component Analysis for the Attitude Scale Towards Historical Place

	Components			
	1. Component	**2. Component**	**3. Component**	**4. Component**
Item28	.734			
Item18	.681			
Item27	.630			
Item15	.585			
Item24	.564			
Item35	.552			
Item36	.552			
Item25	.519			
Item19	.516			
Item21		.780		
Item22		.749		
Item20		.632		
Item16		.575		
Item13		.568		
Item34			.746	
Item8			.715	
Item29			.634	

Item17	.631	
Item12	.593	
Item5		.715
Item1		.647
Item2		.540
Item4		.454

When the items regarding dimensions in Table 4 are examined, it is observed that the first dimension consists of nine items (15, 18, 19, 24, 25, 27, 28, 35, 36) and the factor load values change between .516 and .734. It is observed that the second dimension consists of 5 items (13, 16, 20, 21, 22) and their factor load values change between .568 and .780. It is observed that the third dimension consists of 5 items (8, 12, 17, 29, 34) and the factor loads change between .593 and .746. It is observed that fourth dimension consists of 4 items (1, 2, 4, 5) and their factor loads change between .454 and .715.

Findings regarding t-test carried for Distinctiveness

A top (27%) and a bottom group (27%) were identified and a t-test was carried out between these groups to test if each item can distinguish between individuals with a high level of attitude and the individuals with a low level of attitude. Obtained results are given on Table 5.

Table 5. Results of t-test regarding distinctiveness of items of Attitude Scale Towards Historical Place

	Grup	**n**	**Ortalama**	**ss**	**t**	**sd**	**p**
Item1	Alt	97	3,536	1,347	-10,091	192	,000
	Üst	97	4,938	0,242			
Item 2	Alt	97	2,557	1,118	-10,195	192	,000
	Üst	97	3,928	0,711			
Item 4	Alt	97	3,464	1,354	-5,301	192	,000
	Üst	97	4,392	1,066			
Item 5	Alt	97	3,144	1,080	-6,949	192	,000
	Üst	97	4,052	0,698			
Item 8	Alt	97	3,052	1,228	-11,079	192	,000
	Üst	97	4,608	0,638			
Item 12	Alt	97	3,175	1,071	-4,486	192	,000
	Üst	97	3,897	1,168			
Item 13	Alt	97	2,361	1,218	-10,141	192	,000
	Üst	97	3,907	0,879			
Item 15	Alt	97	3,000	1,267	-9,729	192	,000
	Üst	97	4,536	0,902			
Item 16	Alt	97	2,165	1,106	-12,045	192	,000
	Üst	97	3,979	0,989			
Item 17	Alt	97	3,402	1,230	-7,891	192	,000
	Üst	97	4,680	1,016			
Item 18	Alt	97	3,351	1,182	-8,904	192	,000
	Üst	97	4,650	0,817			
Item 19	Alt	97	2,608	1,169	-11,337	192	,000
	Üst	97	4,206	0,749			
Item 20	Alt	97	2,268	1,221	-6,513	192	,000
	Üst	97	3,423	1,249			
Item 21	Alt	97	1,856	0,946	-8,503	192	,000
	Üst	97	3,113	1,108			
Item 22	Alt	97	1,979	1,225	-6,703	192	,000
	Üst	97	3,165	1,239			
Item 24	Alt	97	3,010	1,254	-11,836	192	,000
	Üst	97	4,691	0,618			

Item 25	Alt	97	2,330	1,087	-16,667	192	,000
	Üst	97	4,526	0,708			
Item 7	Alt	97	2,887	1,145	-13,935	192	,000
	Üst	97	4,711	0,594			
Item 28	Alt	97	3,340	1,232	-11,966	192	,000
	Üst	97	4,887	0,319			
Item 29	Alt	97	2,907	1,100	-12,045	192	,000
	Üst	97	4,598	0,837			
Item 34	Alt	97	2,732	1,046	-9,044	192	,000
	Üst	97	4,330	0,813			
Item 35	Alt	97	3,258	1,495	-11,880	192	,000
	Üst	97	4,567	0,945			
Item 36	Alt	97	3,536	1,347	-7,290	192	,000
	Üst	97	4,938	0,242			

When Table 5 is examined, it is seen that all of the items in the scale are distinctive for the top and bottom 27% groups (p <0,05). These results show that the items in the Attitude Scale Towards Historical Place can distinguish between individuals with high level and low level of attitude.

Findings Regarding Confirmatory Factor Analysis

Upon completing exploratory factor analysis, confirmatory factor analysis was performed to examine the structure of the Attitude Scale Towards Historical Place. In the confirmatory factor analysis, the model obtained in the exploratory factor analysis was tested and the maximum likelihood method was used in the model parameter estimates (Jöreskog and Sörbom, 2004). The model-data compliance statistics and indices obtained as a result of confirmatory factor analysis are given in Table 6.

Table 6 Model-Data Compliance Statistics and Indices for the Attitude Scale Towards Historical Place

χ^2/sd	GFI	AGFI	CFI	NFI	SRMR	RMSEA
2.61	0.88	0.85	0.95	0.91	0.071	0.067

When Table 6 is examined, it is observed that $\chi2$ / sd = 2,61; GFI = 0.88; AGFI = 0.85; CFU = 0.95; NF = 0.91; SRMR = 0.071 and RMSEA = 0.067. According to Kline (2010), in cases where $\chi2$ / sd ratio is equal to/below 5, SRMR and RMSEA values are lower than 0.08, GFI and AGFI values are higher than .90, it may be suggested that the model shows an acceptable level of compliance with the data. In this respect, it can be seen that model-data compatibility is acceptable when the values obtained are compared with the criterion values.

A second-level confirmatory factor analysis was conducted to test whether this four-dimensional structure obtained as a result of confirmatory factor analysis was subcomponents of the overall structure called attitude towards historical place. The model-data compliance statistics and indices obtained as a result of second-level confirmatory factor analysis are given in Table 7.

Table 7. Model-Data Compliance Statistics and Indices for the Attitude Scale Towards Historical Place

χ^2/sd	GFI	AGFI	CFI	NFI	SRMR	RMSEA
2.66	0.87	0.84	0.95	0.91	0.073	0.068

In Table 7, it is observed that fit indices are $\chi2$ / sd = 2.66; GFI = 0.87; AGFI = 0.84; CFU = 0.95; NF = 0.91; SRMR = 0.071 and RMSEA = 0.068. It is also observed for this model that model-data compatibility is acceptable when these values in the table are compared with the criterion values determined for model-data

compatibility. Considering analysis results, it is possible to assert that the "Attitude Scale Towards Historical Place" can be used both as a four-factor structure and basically as a single structure and with 4 factors.

Reliability Studies Regarding Attitude Scale Towards Historical Place

The reliability of the Attitude Scale Towards Historical Place was tested with the alpha internal consistency coefficient. The alpha internal consistency coefficient of the scale which is obtained from 351 data is given in Table 8 below.

Table 8. Factor Loads of the Scale, Cronbach Alpha Values of Factors and the Items in the Factors

Item No	Factor Load	Items
I.	**Factor (The factor of valuing historical places) Cronbach Alpha = .83**	
28	.734	I think that old buildings like museums, battlefields, city ruins, mosques and madrasas are important for their historical value.
18	.681	It is makes me sad when a historical place is damaged.
27	.630	I get excited when I see an historical place.
15	.585	I would like to touch historical remnants in that place when I walk around a historical place.
24	.564	I enjoy getting photos and images of historical places.
35	.552	I feel like I have lived in that historical period when I visit a historical place.
36	.552	When I am visiting a historical place, I feel disturbed if that historical place is not clean.
25	.519	I like to talk about historical places in the city where I am living in to people who are interested in learning about those places.
19	.516	When I visit a historical place, I can imagine the first state of that historical place.
II.	**Factor (The factor of curiosity towards/special interest in a historical place) Cronbach Alpha = .73**	
21	.780	I follow up the websites designed for historical places closely.
22	.749	I make a collection of photographs, models, etc. of historical places.
20	.632	I do not like people who do not know the historical places in the city where they live.
16	.575	I prefer to watch programs telling about historical venues on TV.
13	.568	I follow up the news about historical places closely.
III.	**Factor (The factor of indifference to historical places) Cronbach Alpha = .75**	
34	.746	I do not participate in the trips organized to historical places unless it is compulsory.
8	.715	I get bored when I am visiting historical places.
29	.634	I do not make time to visit a historical place.

17	.631	I think it is unnecessary to visit historical places.
12	.593	I cannot tell if a place is historically significant.
IV. Factor (The factor of awareness towards historical places) Cronbach Alpha = .58		
5	.715	I know about historical places in the city I am living in.
1	.647	I think that historical places increase the significance of the city in which they are located.
2	.540	Before visiting a historical place, I would like to learn about that historical place.
4	.454	I think restoration of historical places (in fact, reconstructing them appropriately) is a waste of money.

For the overall survey, Cronbach's Alpha = 0. 87 Kaiser-Meyer-Olkin (KMO) = 0.88
Barlett Test Result =2601,699

The reliability of the Attitude Scale Towards Historical Place was tested with the alpha internal consistency coefficient. The alpha internal consistency coefficient of the scale obtained from 351 data was found 0.835 for the first dimension, 0.739 for the second dimension, 0.754 for the third dimension, 0.582 for the fourth dimension and 0.870 for the entire scale. According to these obtained values, it may be asserted that they have sufficient reliability for each of the dimensions and for the entire scale.

In the explanatory factor analysis carried out to find out construct validity of attitude scale towards historical place, it was observed that items could be grouped under four factors and the factor loads were in acceptable range. The alpha internal consistency coefficient of the scale was determined to be 0.87. As a result of our analyses, it may be said that this scale is a valid and reliable measurement tool to determine the attitude levels of tenth-grade students (secondary education) towards historical places.

Discussion, Conclusion and Recommendations

In this study, a reliable and valid Likert type attitude scale has been developed which can be used to determine the attitudes of high school students towards historical places. This scale consists of 23 items. As a result of rotated principal component analysis, a structure that consists of four sub-dimensions was formed. These factors were called by researchers as *"valuing historical places, curiosity towards/special interest in historical places, indifference to historical places, awareness of historical places"*. The Cronbach Alpha internal consistency coefficient of the scale was determined to be 0.87. According to these results, it can be said that this scale has a good reliability coefficient. (Tezbasaran, 1996).

In the final section of this study, a confirmatory factor analysis was conducted. In this study, as part of confirmatory factor analysis, root mean square error approach (RMSEA) was detected as 0.068; standardized root mean square residual (RMR) as 0.073; goodness of fit index (GFI) as 0.87; adjusted goodness of fit index (AGFI) as 0.84; normed fit index (NFI) as 0.91; comparative fit index (CFI) as 0.95 and non-normed fit index (NNFI) as 0.96. Analysis results show that values are within acceptable limits even if they do not have excellent fit values (Simsek, 2007).

As a result, considering the importance of leveraging from historical places in history teaching, it is both important to develop scales that measure the attitudes/affective behavior of students towards history teaching in historical places and to measure these attitudes and behaviors correctly. In this research, an attitude scale was developed in an effort to determine the attitudes of the high school students towards historical places.

Findings regarding the validity and reliability of the scale indicate that this scale can be used to identify the attitudes of students in high school towards historical places. Since the development of this scale is based upon high school students, the validity and reliability studies should be performed by using the relevant group data.

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