Developing of a School Transparency Scale: A Study on Validity and Reliability

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ABSTRACT

It is important to determine at what extent transparency, accepted as a principle in the management of the organizations and having an indisputable influence on determination of attitudes and behaviors of people working in organizations, comes out at schools. The purpose of this study was to develop the School Transparency Scale (STS) and conduct validity and reliability study of the instrument which can be used in the evaluations concerning transparency at the schools. The sample of this study comprised of 246 teachers working at 13 different schools, 3 were vocational high schools and 2 were Anatolian high schools chosen at random. An item pool was created based on experts' advice. The construct validity of the scale was investigated through EFA and CFA analyses. The relationships between sub-dimensions of School Transparency Scale and of Organizational Trust Scale were explored to measure criterion validity of School Transparency Scale. The scale consisted of 26 items and 3 factors. Fit indices values obtained as a result of CFA proved that the model supplied sufficient congruity. Sub-dimensions were named as transparency in practice, transparency in evaluation and transparency of information. The general reliability coefficient of the scale was calculated as Cronbach Alpha ,95, which was quite high. Explained variance was 62,14%. The relationships between sub-dimensions of School Transparency Scale and of Organizational Trust Scale were explored to measure criterion validity. The School Transparency Scale is highly reliable and has sufficient internal validity. At the end of the research, the scale was found out to be a reliable and valid measurement instrument apt to determine the transparency levels of the schools. Therefore, the findings proved that the scale had sufficient validity to determine the transparency levels of the schools. As a result of this study we can conclude that School Transparency Scale is highly reliable, valid and has an adequate internal consistency.

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Keywords:
The School Transparency Scale, validity and reliability

Introduction

As a result of globalization and changes in management thought, expectations from the organizations have gone through many changes. Along with democratic management, countries intended to settle democracy have sought for transparency (Yalçın, 2006), and the needs such as development of democratic thought, efficiency in management, and productivity have highlighted transparency (Koçak, 2010). The fact that such phenomena as participative democracy, open organizations and accountability have gained importance have resulted in increase in the demands associated with transparency in the organizations. Traditional management thought based on confidentiality and closeness sets an obstacle for transparency in public administration (Şengül, 2005). Confidentiality is fundamental to the traditional thought, whereas openness is fundamental to the new thought and confidentiality is regarded as an exceptional situation (Kurdoğlu, 2008).

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New public administration thought suggests an alternative organization, which is adaptable, participative, transparent and accountable instead of a bureaucratic structure based on confidentiality (Kartal, 2006). Effectiveness in management can be achieved through an efficient democracy. This also depends on the fact that the management has efficient accountability, transparency and communication processes (Kalkan&Alparslan, 2009). Great initiatives have been taken all over the world to make public management work more efficiently, productively and economically, and in this framework the new public management approach, which is transparent, accountable and open to participation, have been widely accepted (Nohutçu, 2006).

Management thought an organization possesses has an influence on attitudes and behaviors of the people working there. One of the factors to determine attitudes and behaviors of the people working against the organization is organizational transparency. Transparency plays a key role in the decision-making process of the organization and implementation of the decisions (Vaccora& Madsen, 2009). The organization management can make the organization more effective by means of increasing transparency in its decisions and implementations. The fact that the management makes reasonable decisions and shares them with the workers can contribute to positive acceptance of the decisions in the organization (Şengül, 2005). In this way, transparency will increase in the organization, and it will be an effective factor for those, who are managed there, to appreciate activities of the management.

In the last decade, transparency has been increasingly used in commerce, politics and education, and hence defined in various ways in the fields it has been used. Transparency means "(of a material or article) allowing light to pass through so that objects behind can be distinctly seen, clear, and obvious" (TDK). Transparency is defined as the most important prerequisite for managing public organizations controlled well by the central authority in Positivistic Philosophy and Classical Liberalism (Altıntaş, 2006), as the process in which information about present circumstances and events is, on the whole, achievable, understandable, and tangible in financial markets (Özbay, 2007), and as announcement of the work done to the public correctly and periodically presenting information about where and how public resources, including the revenue, are used to the public's attention and inspection in public administration (Kaya, 2006). Transparency means an organization's being open in terms of the work it carries out. According to Premchand (2001), transparency is a system which is everlasting but effective and comprehensive, which contributes to accountability, the purpose of which is to establish sheer responsibility for the workers and the government, and which reflects a well-organized framework for making and managing public policies. Briefly, transparency means access to understandable, relevant, qualified, and reliable information about the works the organization does and its performance at the right time, and also the phase of sharing decisions and information with shareholders. (Blagescu M., de Las Casas L. and Lloyd R., 2005; Kuzey, 2003; Distosa, 2010).

A good system owns some universal principles such as accountability, responsibility, transparency and equal treatment (Ararat, 2003). Transparency is the earmark of an organization. Overall, it is regarded as the fundamental principle of organizational management (Baraz, 2004; Argüden, 2007; Kurdoğlu, 2008; Toksöz, 2008; Erdoğan, 2009; Arsoy, 2008). In all international organizational management approaches, the concept of transparency plays an indispensable role in the organizations (Capital Markets Board, June 2003). Popper and Lipshitz (1998, p.172) suggest that one of the most important values to provide productive organizational learning is transparency. It presents many advantages to the organization. Transparency plays a key role in the elimination of ineffectiveness in the organization (Berggren &Bernshteyn, 2007). Openness has become a requirement for an effective management (Özcan, 2006) since there will definitely be a decrease in motivation and proper behavior in the event of lack of transparency (Viso, 2009). In transparent organizations; problems, failures and experiences are publicized, nothing remains hidden and appropriate methods are adopted by the workers to settle discussions and conflicts (Pınar, 1999).

Today the success of the organizations depends on powerful people's accepting the culture of transparency and accountability, and on their being fair and consistent (Argüden, 2007). In short, as transparency increases, quantity and quality of the information supplied in the organization increases as well (Arsoy, 2008), and the organization becomes more reliable (Rawlins, 2008). Transparency in management can be provided through free information flow. This is also possible with the accessibility to the organizations and information for those who are in need of this information. Spread of this information through transparency and open information systems helps the organizations make good decisions in the

subjects regarding companies and citizens (Saylam, 2007). As transparency increases in the organizations, such characteristics as justice, accountability and trust increase as well, and as a consequence, the workers' attitudes and behaviors towards the organization and its management get more positive.

Transparency is examined in various ways according to different subjects it focuses on. These are financial transparency, transparency of process, transparency towards activities and performance (Saylam, 2007), transparency of information, participative transparency, transparency towards responsibility and transparency of judicial system (Yıldırım, 2006). Types of transparency can be investigated in a way enabling to comprehend management processes in the organization. In order to supply transparency in management, an effective and well-working accountability process is needed (Özcan, 2006) along with achievable information which is appropriate, reliable and qualified for those whose needs are met by this information (Erdoğan, 2009). Absence and lack of transparency exist only when access to the information is refused, obtained information is irrelevant, the information is misinterpreted, the information is not obtained on time, the information is misrepresented and unclear (Altıntaş, 2006). To increase transparency of information, it must be achievable, relevant, understandable, qualified, reliable, punctual and consistent (Kuzey, 2003).

There are several studies on transparency in business and public administration, whereas in educational administration almost no studies have been found on transparency or related studies. In the transition process from traditional management approach based on confidentiality and closeness to the new management approach relying on transparency, accountability and participation, educational organizations can be more productive and effective by improving themselves within the context of these values. Furthermore, schools can gain the confidence of the school staff and parents with these values. As Şişman and Turan (2003) argue, Turkish education system must pass to democratic and transparent applications regardless of management politics such as the concern to lose control. Human relations in the school's cultural structure must be intimate, friendly, open and transparent (Yıldız, 2007).

Managing school evaluation applications and providing responsibility and transparency are among the skills that the school principals must have (TemelEğitimeDestekProgramı). While evaluating the teachers, the school principals must be transparent and should inform them, and they must work together with them in the evaluation process (Çalık&Şehitoğlu, 2006). The school principals must be able to do their best to keep up the teachers' motivation. Awarding related to performance must be carried out transparently, and it must be valid for all the teachers and workers at the school (TemelEğitimeDestekProgramı). Public organizations can assure transparency when the information is easily achievable for those needing it and participation of relevant staff is supplied in decision-making process, while the school management can provide transparency by involving the internal and external shareholders in decision-making process to apply the decisions made, inspection and evaluation processes through an open information sharing method.

It is of utmost importance to determine at what extent transparency, accepted as a principle in management and having an indispensable effect on determination of attitudes and behavior of state employees, exists at the schools. After finding out at which parts transparency is low at the schools, it was aimed to develop the School Transparency Scale to offer solutions to cut down on the lack of transparency. In this study, how validity and reliability studies regarding the School Transparency Scale developed by the researcher were carried out was highlighted. This study is significant as it contributes to determine transparency levels of the schools.

Method

The population of the research consisted of the secondary schools located in the city center of Gaziantep. The study group consisted of 13 different schools chosen at random, of which 8 were general high schools, 3 were vocational high schools and 2 were Anatolian high schools. 246 teachers (female 76, male 170) participated in the research.

Development of the Data Collection Instrument

The purpose of this research was to develop a measurement instrument to determine transparency levels of the schools. The following steps were pursued in the process of development of the instrument:

a) Formation of the item pool
b) Content Validity
c) Validity and reliability studies
d) Criterion Validity

Formation of the item pool. First of all, a literature review was carried out to form the item pool (Blagescu et al.; Kaya, 2006; Yıldırım, 2006; Özbay, 2007; Rawlins, 2008; Erdoğan, 2009 and Distosa, 2010). Additionally, an interview was made with 30 teachers seeking answers to the question: "What characteristics do transparent schools have?" Analyzing the data collected via interview forms of the teachers, the items having similar characteristics were brought together, and the item pool was formed. After all this process, a draft version consisting 35 items was created.

Content validity. The content validity of this study was provided by seeking experts' advice. The draft version was evaluated by specialists in the field of educational sciences (Educational Administration, Measurement and Evaluation, and Curriculum and Instruction). The items of the measurement instrument were analyzed by the specialists in accordance with Turkish language syntax and semantics, and some changes were made. Based on their views, some items were removed from the item pool. Factor analysis was done for 27 items.

Validity and reliability. Construct validity was carried out in the process of The School Transparency Scale (STS) validity studies. With the intention to determine factor structure and dimensions of the scale for construct validity, exploratory factor analysis was carried out using the SPSS 15 package program, and confirmatory factor analysis (CFA) was done using LISREL 8.54 (Jöreskog&Sörbom, 2003) statistical program. To determine whether data series were appropriate for factor analysis, correlation coefficients between variables were examined. The higher the correlations between variables are, the more probably variables can form joint factors (Kalaycı, 2008). The construct validity of the scale was examined through factor analysis. BarlettSphericity and Kaiser-Meyer-Olkin (KMO) tests were employed to see whether the data were appropriate for factor analysis and the sample was satisfactory. The fact that KMO is higher than .60 and BarlettSphericity test is significant indicates the data are appropriate for factor analysis (Büyüköztürk, 2008). Exploratory Factor Analysis was carried out to figure out the factors highlighting relations between the variables in the research (Büyüköztürk, 2008). The present study was exposed to Varimax rotation to assure independence of the factors, openness and significance in interpretation. After Varimax rotation, while factor loading of one item increases, factor loadings of the others decrease. Thus, factors classify the items having a high relationship with each other and they can be interpreted more easily (Büyüköztürk, 2008). In this way, Varimax techniques were employed in the rotation phase of factor analysis. Loading values of the items were calculated as 0.30 and over in the present study. When an item had high loading values in both factors, it was removed from the scale. It is expected that the difference between the highest loading value of an item and the highest loading value of the item after this value should be as high as possible. The difference between high loading values is expected to be at least 0.10 (Büyüköztürk, 2008). Therefore, the items, loading values of which were under 0.10 in two factors, were removed from the scale.

Cronbach Alpha coefficient was used to learn whether the STS's internal consistency, e.g. the items in the scale, had a homogenous structure. Cronbach Alpha coefficient was calculated both for the whole scale and for each factor separately. This method analyzes if the items indicate a whole in a homogenous structure (Kalaycı, 2008). Moreover, the correlation between discrimination power of the items and their factors was calculated. Confirmatory Factor Analysis (CFA) is a kind of analysis which helps test if a construct defined and restricted previously is confirmed as a model (Çokluk, Ö.,Şekercioğlu, G. &Büyüköztürk, Ş., 2010). In this study, for CFA multiple fit indices were used, and Chi-square goodness of fit, comparative fit index (CFI), normed fit index (NFI), incremental fit index (IFI), relative fit index (RFI), root-mean-square error of approximation (RMSA) and root-mean-square residuals (RMR) were analyzed. CFI, NFI, IFI and RFI ≥ .95 and RMSA and RMR ≤ .80 were taken as the criterion.

Criterion validity. The relationships between sub-dimensions of School Transparency Scale and of Organizational Trust Scale were explored to measure criterion validity of School Transparency Scale. Yılmaz (2005) adapted Organizational Trust Scale which was developed by Daboval and colleagues (1994) for

schools. Yılmaz (2005) calculated Cronbach Alpha reliability coefficient to determine the reliability of Organizational Trust Scale for Schools, and it was found to be 0.97. In the current study, Cronbach Alpha (α) reliability coefficient was found to be 0.97. The School Transparency Scale was applied on the teachers out of class hours on the basis of voluntariness by the researcher. It took 5-6 minutes to fill in the scale.

Results

Construct Validity

Factor analyses were carried out for the 27 items taking place in the scale used in the research. Whether the data were appropriate for factor analysis and the sample was satisfactory for the research was examined. As a result of the analyses, KMO value of the school transparency scale was found as .950, and BarlettSphericity result was found as 5088.495. KMO was higher than 0.60, in addition, BarlettSphericity Test result was significant at 0.05 level (p= 0.00). KMO value was very close to 1 and data group was quite good for factor analysis. Consequently, the collected data and the sample of the research were satisfactory. Factor numbers were found according to Scree test graphic in the factor analysis. In this method, the factors until the point at which the graphic takes a horizontal shape are accepted as the maximum factor number to be obtained (Kalaycı, 2008:322). When Scree test graphic is examined (Figure 1), it can be observed that scree plot loses its inclination after third factor mostly. For this reason, the factor number was calculated as 3.
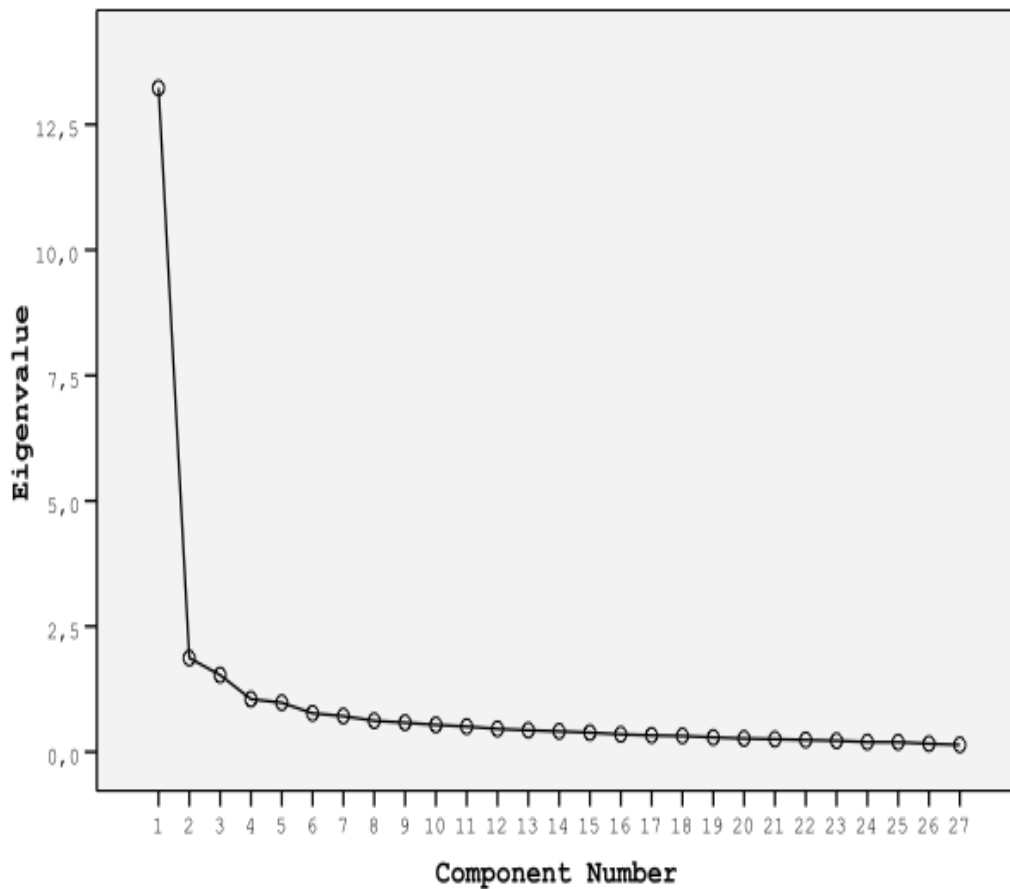

Figure1. Scree plot of factor analysis

Total item correlation, factor analysis and Cronbach Alpha values of the School Transparency Scale are shown in Table 1.

Table 1. Total item correlation, variances, factor analysis, and cronbach alpha values of the school transparency scale

Factor name	Item No	Total item correlation	Commonvariance	Weight Values after Rotation		
				Factor 1	Factor 2	Factor 3
Transparency in practice	12	.80	.73	.80		
	17	.74	.65	.77		
	13	.75	.64	.74		
	11	.82	.71	.73		
	14	.75	.61	.72		
	19	.76	.62	.71		
	27	.74	.60	.69		
	21	.75	.60	.69		
	18	.77	.61	.69		
	15	.70	.54	.69		
	26	.76	.62	.68		
	10	.73	.58	.65		
	25	.77	.61	.64		
	23	.80	.70	.64		
	20	.69	.52	.63		
	22	.68	.49	.62		
	16	.53	.41	.62		
Cronbach Alpha: 0.95 Explained variance: 34.35						
Transparency in evaluation	1	.64	.75		.81	
	2	.65	.75		.80	
	3	.71	.74		.75	
	24	.56	.39		.50	
Cronbach Alpha: 0.83 Explained variance: 14.80						
Transparency of information	6	.56	.66			.75
	7	.61	.66			.73
	8	.65	.67			.70
	5	.56	.62			.69
	4	.49	.57			.64

Cronbach Alpha: 0.83
Explained variance: 12.98

When Table 1 is examined, it is seen that the scale has 3 factors and 26 items. The first factor is made of 17 items. 9. item in this factor was removed from the scale as it had similar loading values with the other factors. Item loading values of this factor ranged from 0.80 to 0.62. As a result of reliability calculation done using Cronbach Alpha value, Alpha value of this factor for nineteen items was calculated as 0.95. If Cronbach Alpha value is $0.80 \leq \alpha < 1.00$, the scale is considered to be highly reliable (Kalaycı, 2008). Given this value, the reliability of this factor will be seen to be very high. Having examined the items related to the first factor, as contents of these items were appropriate for practices and activities at schools, they were named as "Transparency in Practice". "Transparency in practice" sub-dimension of the scale consisted of 12., 17., 13., 11., 14., 19., 27., 21., 18., 15., 26., 10., 25., 23., 20., 22. and 16. items.

The second factor of the scale consisted of 4 items. Loading values of this factor ranged from 0.80 to 0.51. As a result of reliability calculation done using Cronbach Alpha value, Alpha value of this factor for 4 items was calculated as 0.83. Given this value, the reliability of this factor will be seen to be very high. Having examined the items related to the second factor, the content of these items was seen to be apt to awarding of the schools staff. This situation was about evaluation of the teachers; these items, therefore, were named as "Transparency in Evaluation". Transparency in evaluation sub-dimension of the scale made up of 1., 2., 3. and 24. items.

The third factor of the scale was composed of 5 items. Loading values of this factor ranged from 0.75 to 0.64. As a result of reliability calculation done using Cronbach Alpha value, Alpha value of this factor for 3 items was calculated as 0.83. Provided that Cronbach Alpha value is $0.80 \leq \alpha < 1.00$, the scale is considered very reliable. Having examined the items related to the third factor, as contents of these items were

appropriate for information sharing and information about the school staff, they were named as "Transparency of information". Transparency of information sub-dimension of the scale consisted of 6., 7., 8., 5. and 4. items. When Table 1 is examined, the first factor explains 34.35 % of the total variance of the scale, the second factor explains 14.80 % and the third factor explains 12.98 % . The scale explains 62.14 % of the total variance related to the school transparency.

The total score of Cronbach Alpha measured for the scale reliability. The cronbach alpha score was measured .95 for this scale. If the Cronbach Alpha score between $0.80 \leq \alpha < 1.00$, we can conclude that scale is higly reliable. The total reliability score of the scale and sub-scales were higly scored. Possibly because of the consistency and the comprehensibility of the items (Kalaycı, 2008). Correlation was calculated for each factor of the scale. Item correlation matrix of the first factor was generated and found significant between .33 and 76, second factor item correlation matrix was generated and found significant between .35 and 77, third factor item correlation matrix was generated and found significant between .35 and 73. In consequence of the Item correlation matrix we can conclude that items are related moderately, positive and significant. That could be the main factor for the high Cronbach Alpha score.

Confirmatory Factor Analysis

CFA was carried out for the construct validity of the School Transparency Scale. In this study, for CFA multiple fit indices were used, and Chi-square goodness of fit, comparative fit index (CFI), normed fit index (NFI), incremental fit index (IFI), relative fit index (RFI), root-mean-square error of approximation (RMSA) and root-mean-square residuals (RMR) were analyzed. CFI, NFI, IFI and RFI $\geq$ .95 and RMSA and RMR $\leq$ .80 were taken as the criterion.Fit indices of the model obtained from CFA were investigated, and Chi-square value (x^2= 757.38, df=296, p=0.00) was significant. Fit indices values were calculated as RMSEA= 0.080, RMR= 0.077, NFI= 0.96, CFI=0 .97, IFI= 0.97 and RFI= 0.95. These fit indices values proved that the model was satisfactory. T-value scores were analysed for the significance of the factor loads within CFA. Finally it was concluded that factor loadings of the T-values were significant.Factor loadings related to the model are shown in Figure 2.
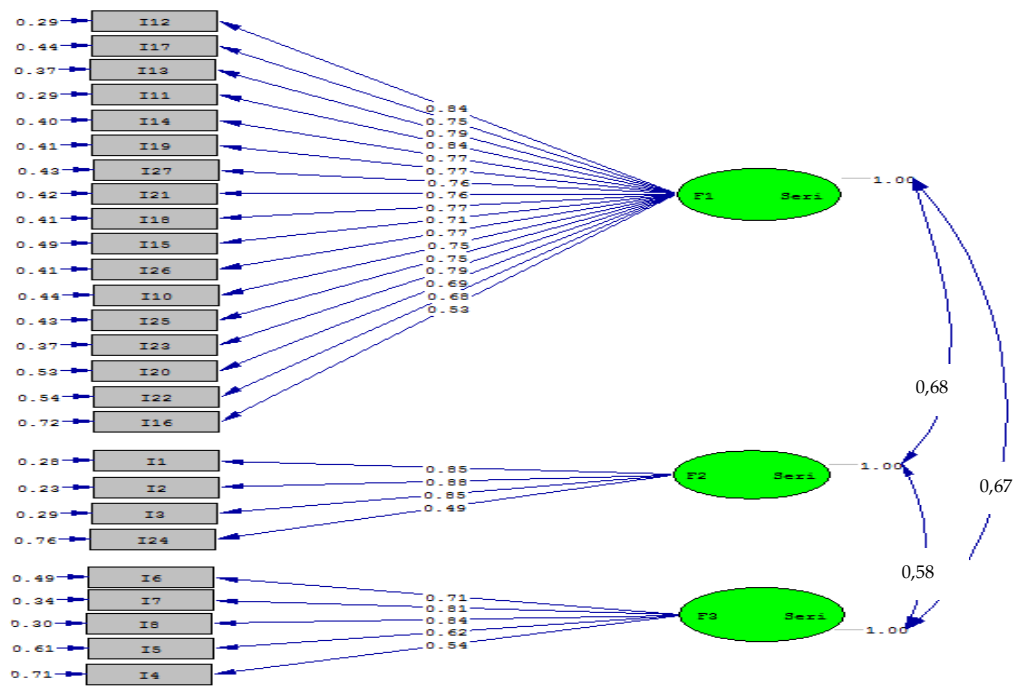
Figure 2. Path diagram and factor loadings related to the school transparency scale

Relationship between Sub-dimensions

Arithmetic average, standard deviation and correlation matrix related sub-dimensions of the School Transparency Scale are given in Table 2.

Table 2. Arithmetic average, standard deviation and correlation matrix related sub-dimensions of the school transparency scale

Variables	$\overline{X}$	Sd	1	2	3
1. Transparency in practice	57.62	13.66		.65*	.59*
2. Transparency in evaluation	11.36	3.92			.53*
3. Transparency of information	17.10	3.98			
N = 246 *p=0.00					

When Table 2 is examined, a positive and significant relationship is seen at medium level between the sub-dimensions of the STS.

Item Discrimination Power

Discrimination Power of the items forming the scale was calculated in order to determine transparency level of the schools. While calculating discrimination power of the items, firstly total points each test subject took was found, and then the points were arranged in an order starting from the highest to the lowest point. 27 (66) % of the group formed the top group, and 27 (66) % formed the bottom group. Whether there was a significant difference between top and bottom groups was tested through Independent Groups t-test.

Table 3. Item Discrimination Index of the School Transparency Scale (Lower-Upper Group T Values)

Item no	t	Item no	t	Item no	t	Item no	t
1	-13.49*	10	-12.47*	18	-13.52*	26	-13.98*
2	-12.59*	11	-16.81*	19	-14.21*	27	-12.69*
3	-15.27*	12	-16.50*	20	-10.34*		
4	-8.22*	13	-13.22*	21	-14.56*		
5	-9.65*	14	-15.41*	22	-11.66*		
6	-7.16*	15	-11.30*	23	-16.85*		
7	-7.90*	16	-9.25*	24	-9.45*		
8	-8.69*	17	-12.60*	25	-13.79*		

N= 246 *p=0.00

When Table 3 is examined, it will be found out that all the items in the scale were significant up to .05 (p=0.00). That the items in the scale had significant t-values can be interpreted in such a way that the items are distinctive to determine transparency level of the schools.

Evaluation of Points of the Scale

In the STS, a 5-point Likert-type scale was used. For "Strongly Disagree" choice 1 point, "Disagree" choice 2 points, "Undecided" choice 3 points, "Agree" choice 4 points and "Strongly Agree" choice 5 points were given. In this 5-point scale, choice intervals (4/5=0.80) were arranged based on interval coefficient calculated as (5–1=4) for four intervals. Scoring patterns of the scale and their interpretation are shown in Table 4.

Scoring according to the average: The school having 1,00-1,79 point average has the lowest transparency level, the one with 1,80-2,59 point average has a low level of transparency, the one with 2,60-3,39 point average has a medium level of transparency, the one with 3,40-4,19 point average has a high level of transparency and the one with 4,20-5,00 point average has the highest level of transparency. According to the points to be got: the school scoring 26-47 points has the lowest level of transparency, the one with 48-68 points has a low level of transparency, the one with 69-89 points has a medium level of transparency, the one

with 90-110 points has a high level of transparency and the one with 111-130 points has the highest level of transparency.

Table 4. Scoring patterns of the scale and their interpretation

Weighted point	Choices	Point interval	Average of the points	Interpretation
1	Strongly Disagree	1.00-1.79	26-47	Very low
2	Disagree	1.80-2.59	48-68	Low
3	Undecided	2.60-3.39	69-89	Medium
4	Agree	3.40-4.19	90-110	High
5	Strongly Agree	4.20-5.00	111-130	Very high

The relationships between sub-dimensions of School Transparency Scale and of Organizational Trust Scale were explored to measure criterion validity of School Transparency Scale. Positive and statistically significant relationships were found between all of the sub-dimensions of School Transparency Scale and of Organizational Trust Scale at p<0.01 significance level. Table 5 demonstrates the relationships between all of the sub-dimensions of School Transparency Scale (STS) and of Organizational Trust Scale (OTS). Thelatestversion of the School TransparencyScale is attached (Appendix: School TransparencyScale)

Table 5. Correlation Coefficients between the Scales

Dimensions	Transparency in practice	Transparency in evaluation	Transparency of information
Sensitivity for staff	.727*	.596*	.577*
Trust in administrator	.600*	.470*	.550*
Communication environment	.655*	.454*	.489*
Openness to change	.665*	.513*	.498*

N = 246   *p<0.01

Conclusion and Discussion

The purpose of this study was to develop the STS and carry out validity and reliability study of this instrument which can be used for evaluations related to transparency levels of the schools. The sample of the study was satisfactory as it met specified number accepted for scale development studies. Additionally, the findings obtained as a result of the present study proved that the STS was satisfactorily valid and reliable.

Construct validity study was conducted through exploratory factor analysis and confirmatory factor analysis. In the selection of the items to be placed in the final version of the scale, Component Factor and item test correlation were taken as the basis. The scale was made up of 3 factors and 26 items. In this study, for CFA multiple fit indices were used, and Chi-square goodness of fit, comparative fit index (CFI), normed fit index (NFI), incremental fit index (IFI), relative fit index (RFI), root-mean-square error of approximation (RMSA) and root-mean-square residuals (RMR) were analyzed. CFI, NFI, IFI and RFI ≥ .95 and RMSA and RMR ≤ .80 were taken as the criterion.Fit indices values obtained as a result of CFA proved that the model supplied sufficient congruity.Only one item in the final version of the scale had 0,50 factor loading and the others had loadings over 0,60. This demonstrates that the items had high loading values. If there is a cluster formed by the items having a relevant relationship with one factor, this finding indicates that all the items together measure the construct in question (Çokluk et al., 2010). T-value scores were analysed for the significance of the factor loads within CFA. Finally it was concluded that factor loadings of the T-values were significant.A positive and significant relationship was observed between the factors of the scale at a

medium level. In the confirmatory factor analysis, which was carried out for the STS, multiple fit index values proved that the model was satisfactory.

The general reliability coefficient of the STS was CronbahAlpha ,96, which was very high. The general reliability coefficient calculated with Cronbach Alpha formed 0,95 of the first factor, 0,83 of the second factor and 0,83 of the third factor. Given that reliability level specified for measurement instruments to be used in the research is 0,70 (Tezbaşaran, 1996), it is possible to say that the reliability level related to all the sub-dimensions of the scale meets the criteria. The sub-dimensions of the scale were highly reliable. Given total item correlations, they ranged from ,49 to ,82. Correlation coefficient of each item in the scale is the earmark of internal validity of the scale as a whole and the items one by one too (Tavşancıl, 2002).

The sub-dimensions of the scale were named as transparency in practice, transparency in evaluation, and transparency of information. The first factor explains 34,35 % of the total variance of the scale, the second factor explains 14,80 % and the third factor explains 12,98 %.Explained variance was 62,14%, which was reasonable. That explained variance is high refers to the sign of good measurement of related concepts and constructs (Büyüköztürk, 2008). In social sciences, the explained variance ranging from 40% to 60% in the multi-factor scales is regarded satisfactory (Büyüköztürk, 2007; Tavşancıl, 2005).Discrimination Power of the items was 27%, and this proportion was significant for all the items in top-bottom group averages. Therefore, each item is distinctive to determine transparency level of the schools.

In the STS, a 5-point Likert-type scale was used. For "Strongly Disagree" choice 1 point, "Disagree" choice 2 points, "Undecided" choice 3 points, "Agree" choice 4 points and "Strongly Agree" choice 5 points were given.The lowest point to be used in the scale is 26, while the highest point is 130. Increase in the points obtained from the scale indicates that transparency level is also high at the school. While making evaluations for each sub-dimension, average points obtained from the sub-dimension in question is paid attention to. Height of the points to be got from each sub-dimension indicates that the related transparency dimension is good; lowness in the points indicates that the related transparency level is at a desirable level.

Organizational Trust Scale (OTS) was used to investigate criterion validity of School Transparency Scale (STS). Organizational Trust Scale (OTS) was developed to measure organizational trust level in schools (Yılmaz, 2005). Correlation analysis results showed that there were positive and statistically significant relationships between all of the sub-dimensions of both School Transparency Scale (STS) and Organizational Trust Scale (OTS). These findings point out to an expected relationship. This is because there must be transparency between school administrators and school staff to develop a sustainable trust climate (Bryk and Schneider 2002 cf: Ercan, 2006). Organizations which clearly explain their actions are perceived as more trustworthy, and there is a close relationship between transparency and trust in leader (Kalkan and Alparslan, 2009). Transparency is a means of trust, reliability, wellness, honesty and even success (Koçak, 2010).

In conclusion, The School Transparency Scale is highly reliable and has satisfactory internal validity. Therefore, the findings prove that The School Transparency Scale possesses satisfactory validity to determine transparency level of the schools. For further research, it is recommended to develop internal consistency of the scale and test its validity on different samples.

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Appendix: The School Transparency Scale

Item no After Factor	Item no		I absolutely disagree (1); I disagree (2); I am between (3); I agree (4); I absolutely agree (5)
1	12		Participation of the school staff in the application of the decisionsis regarded as important in our school.
2	17		There is an open communication which helps the school staff explain their views and suggestions in our school.
3	13		Implementations in our school are in concert with the decisions made.
4	11		The school staff is treated fairly in the application of the decisions in our school.
5	14		How the decisions made will affect the school staff are paid attention to in our school.
6	19		Relationships between all the school staff are clear in our school.
7	27		Evaluations in our school are made with an understanding which informs the school staff.
8	21	**Factor 1**	Our school has a culture which explains why the implementations are done.
9	18		Laws and regulations are carried out fairly in our school.
10	15		Responsibilities of the school staff are clear in our school.
11	26		The reasons of assignments are explained in our school.
12	10		Decisions are made with the participation of the school staff in our school.
13	25		Distribution of the resources is supplied transparently in our school.
14	23		All of the school staff is evaluated fairly in our school.
15	20		The outcomes of the activities carried out are explained in our school.
16	22		The school staff can express their demands calmly in our school.
17	16		Course schedules are prepared with the participation of all of the school staff in our school.
18	1		Why the school staff is awarded is clear in our school.
19	2	**Factor 2**	The school staff keeps abreast of the studies of the person rewarded in our school.
20	3		Awards are distributed equally in our school.
21	24		Grades concerning the school staff's performance are given with thorough reasoning in our school.
22	6		The school staff has information on rules and principles in our school.
23	7	**Factor 3**	Decisions concerning the school are announced to the school staff.
24	8		The school staff is informed about applications in our school.
25	5		The school staff has information on income and expenditures in our school.
26	4		Parents have information on income and expenditures in our school.