

## Adaptation of the Leadership Practices Inventory (LPI) to Turkish

### Liderlik Uygulamaları Ölçeği'nin Türkçe'ye Uyarlama Çalışması

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#### *Abstract*

Aim of this research is determined as adapting the Leadership Practice Inventory developed by Kouzes & Posner (2003) to Turkish. Working group of the research consist of 436 teachers chosen by using the random sampling method among the teachers working in 2009-2010 educational years in Konya/Turkey. 194 of the teachers constituting the working group are female and 242 of them are male. Average working year of them are 15 years. During the adaptation of the scale, it was first translated into Turkish by English teaching experts; then the Turkish text was retranslated into English, compared with the original text and found to be identical with it. Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) was conducted. Reliability of the scale was tested by using Cronbach  $\alpha$ , Spearman Brown, Gutmann Split-Half techniques and corrected item-total correlations, the values related to differences of 27 percentage lower-higher groups. As a result of the validity and reliability analysis, it was thought that Turkish adaptation process of the scale was completed.

*Keywords:* Leadership Practices Inventory, Validity, Reliability, School Principal, Teacher

#### *Öz*

Bu araştırmanın amacı, Kouzes & Posner (2003) tarafından geliştirilen Leadership Practices Inventory'nin Türkçeye uyarlanması olarak belirlenmiştir. Araştırmanın çalışma grubunu, 2009-2010 eğitim-öğretim yılında Konya/Türkiye'de görev yapan öğretmenler arasından tesadüfi örnekleme yöntemi ile seçilen 436 öğretmen oluşturmaktadır. Çalışma grubunda yer alan öğretmenlerin 194'ü kadın ve 242'si erkektir. Öğretmenlerin mesleki kıdemi ortalaması 15 yıldır. Ölçeğin uyarlama sürecinde öncelikle Türkçeye çevirisi yapılmıştır. Ardından ölçeğin geçerliğini sağlamak amacıyla, dilsel eşdeğerliği test edilmiş, açıklayıcı ve doğrulayıcı faktör analizleri gerçekleştirilmiştir. Ölçeğin güvenilirliği ise, Cronbach  $\alpha$ , Spearman Brown, Gutmann Split-Half teknikleri, Düzeltilmiş Madde-Toplam Korelasyonları ve %27'lik alt-üst grup farkına ilişkin t değerleri hesaplanarak sağlanmıştır. Bu işlemlerden sonra ölçeğin Türkçe formunun geçerli ve güvenilir olduğu sonucuna varılmıştır.

*Anahtar Sözcükler:* Liderlik uygulamaları ölçeği, geçerlik, güvenilirlik, okul müdürü, öğretmen.

#### Introduction

Because of the rapid changes in all fields, it is getting harder to predict the future. In organizations, these rapid changes are in need of the leaders like captains who have the ability and specialty of rescuing their ships from a storm with huge waves. In recent years, researchers who are aware of this fact have given a special importance to the leadership researches and have lots of researches on this subject.

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Schools have forever been vessels for their constituents' dreams. Parents, students, taxpayers, educational reformers, and politicians want their schools to be better, different. Schools are populated with caring, committed educators, people who in most instances hold dearly their obligation to respond to the dreams and concerns of community members. Indeed, as vehicles for enlightenment and social and economic mobility, schools were invented to carry dreams for families, individuals, and society (Donaldson, 2006, p. 13). In respect to the perceived leadership approach, survey results indicated that the majority of low achievement schools, at least, were functioning as traditional hierarchical organizations. Fewer than 70% of teachers in the low achievement schools perceived the principal as democratic, participatory, or inclusive. In contrast, in a previous study of in high achievement schools in another district that had been recognized as an innovative school (Sheppard & Brown, 2000), 100% of the staff saw the principal as a key source of leadership, and over 90% saw her/him as democratic, participatory, or inclusive (Sheppard, Brown & Dibbon, 2009).

The schools which are executing so many important functions in society need effective leaders. School leaders are surrounded by messages about the needs of their school. Not infrequently, the needs of students and staff are eclipsed by the more public issues of safety, accountability, and funding; by demands from the district; or even by a balky physical plant (McKeever, 2003). According to Donaldson (2006) school leadership; mobilizes people to adapt their practices and beliefs so that every child's learning and growths are optimized. Furthermore, numerous scales have developed to measure the behaviors of the leaders from various organization types. Some of them are given in Table 1.

Table 1.

*Some of the developed scales for measuring the behaviors of leaders*

Name of the scale	Sub-dimensions	Developers of the scale	Year
Empowering Leadership Questionnaire (ELQ)	Coaching, Informing, Leading By Example, Showing Concern/Interacting with the Team, and Participative Decision-Making	Josh A. Arnold, Sharon Arad, Jonathan A. Rhoades & Fritz Drasgow	2000
Multifactor Leadership Questionnaire (MLQ)	Idealized Influence (attributed), Idealized Influence (behavior), Inspirational Motivation, Intellectual Stimulation, Individualized Consideration, Contingent Reward, Management by Exception (active), Management by Exception (passive), Laissez-faire, Extra Effort, Effectiveness, Satisfaction	Bass, B.M. & Avolio, B.J.	1995
	charisma, intellectual stimulation, individualized consideration, contingent reward, management-by-exception	Bycio, P., Hackett, R. D., & Allen, J. S.	1995
Charismatic Leadership Scale (C-K)	Vision formulation, vision formulation, environmental sensitivity, unconventional behaviors, personal risk, sensitivity to member needs, does not maintain status que	Conger, J.A. and Kanungo, R.N.	1994
Transformational leadership	Vision, staff development, supportive leadership, empowerment, innovative thinking, lead by example, charisma	Carless, S., Wearing A. & Mann L.	2000
	Vision, Intellectual stimulation, Inspirational communication, Supportive leadership, Personal recognition	Rafferty, A.E. & Griffin, M.A.	2004
Servant leadership	Conceptual skills, Empowering, Helping subordinates grow and succeed, Putting subordinates first, Behaving ethically, Emotional healing, Creating value for the community	Liden, R.C., Sandy J. Wayne, S.J., Zhao, H., Henderson, D	2008
Instructional Leadership Survey	Instructional Improvement, Curriculum Improvement	Valentine & Bowman,	1988

Required to be adapted to Turkish LPI, provides you with information about your leadership behavior. It does not measure IQ, personality, style, or general management skills. Kouzes & Posner (2003) designed the LPI to be used by multiple raters. By completing the LPI, several observers can give feedback on your use of the five leadership practices (Challenging the Process, Inspiring a Shared Vision, Enabling Others to Act, Modeling the Way, and Encouraging the Heart)

#### *Challenging the process (CP)*

Leaders search for opportunities to change the status quo. They look for innovative ways to improve the organization. In doing so, they experiment and take risks. And because leaders know that risk taking involves mistakes and failures, they accept the inevitable disappointments as learning opportunities (Kouzes & Posner 2001). Organizations, like individuals, have identities. As with personal identities, organizational identities are built upon experiences, beliefs, and values. In a school organization, identity is the product of the shared experiences, traditions, beliefs, and values of its staff, students, and community (McKeever, 2003; Seifert & Vornberg, 2002). According to the research of Johnson & Asera (1999); principals of the high achievement schools are sure of themselves, can cope with the problems, difficulties and the event of failure. They don't give up trying to develop their schools in spite of the disappointments and difficulties. Moreover, effective school principals are open to dynamic changes and labor to develop their school constantly (Bartell, 1990).

A school with a history of successful students might have an organizational identity of itself as efficacious; it might have beliefs and values that, as a school, it can and should meet the needs of just about any student. A less successful school might question its own ability to teach successfully and might be prone to make excuses for the lack of success (McKeever, 2003).

High Concept school leaders are constantly feeding their minds with new ideas. They spend time thinking about new ways of doing things and different possibilities. They like to build linkages and connections between events, ideas and opportunities. At the same time they are likely to stimulate others to think (Tomlinson, 2004).

One of the specialties of the effective school principals is being ready to take risks and seeing the mistakes as a chance to learn. Researches show that low achievement schools are more normative than high achievement schools, successful school principals are willing to take risk and talented to assess the risks (Sizemore, 1985; Wendel, Hoke & Joekel, 1996).

#### *Inspiring a shared vision (IS)*

Leaders passionately believe that they can make a difference. They envision the future, creating an ideal and unique image of what the organization can become. Through their magnetism and quiet persuasion, leaders enlist others in their dreams. They breathe life into their visions and get people to see exciting possibilities for the future (Kouzes & Posner 2001).

The most often written and spoken of function of leadership is "vision". Visioning in schools by leader may begin with the principal as a formal leader, but visioning must be encouraged as a task for all participants to be involved. The principal is a major player in a leading the process of creating a vision (Seifert & Vornberg, 2002). Principal has the authority to lead the development of a powerful vision for a school or not. The principal's first responsibility in this regard is to define a personally held vision for the school and refer to a number of data sources to develop a clear picture of current reality. The principal then shares this vision and information with others, giving colleagues an opportunity to feel the potential for improvement (McKeever, 2003).

Vision is dreaming the things from today which we want to happen in the future. Long-term thinking and keeping up with the social changes underlie the vision. One other explanation of the vision is having a realistic dream of the aims wanted to be reached (Özdemir, 2000). According to Shepperd, Brown & Dibbon (2009), % 81 of the teachers thinks that developing a vision for school is important. Researches show that successful school principals have a powerful vision and share

their vision with parents, students and other partners of the school (Scheurich 1998 & Mendez-Morse, 1991). But according to the teachers working in low achievement schools, although they think that developing a school vision is important, only %36 of them denotes that they sufficiently conduct creating the school vision (Shepperd, Brown & Dibbon, 2009).

*Enabling others to act (EO)*

Leaders foster collaboration and build spirited teams. They actively involve others. Leaders understand that mutual respect is what sustains extraordinary efforts; they strive to create an atmosphere of trust and human dignity. They strengthen others, making each person feel capable and powerful (Kouzes & Posner 2001). Successful schools emerge from the direction of principals who see the school organization from a holistic point of view. Seeing the big picture is what principals do when they understand and are able to communicate and shape the values, beliefs, and attitudes of faculty and students (Seifert & Vornberg, 2002, p. 90). According to Bilgen (1990), one of the effective items in creating the school climate is school management. Effective school principals create a school climate seeing the student achievement as the primary aim. All their effort is to reach the aimed success (Barth, 1990; Deal & Peterson, 1999; Steller, 1998). Besides, effective school principals provide administrative support to the teachers' being able to focus on the determined aims. According to research "Turkish Education System and Effective School Figures" done by Bakay & Kalem (2009), it is determined by school principals and teachers that the most important figure of the school effectiveness is the climate. Furthermore, according to another finding obtained from the research, teachers and principals accept the participative decision process as one of the effective school figures. Research done by Blasé & Blasé (1994) indicates that successful school principals are also successful in participative decision making and entitling the personnel.

*Modeling the way (MW)*

Leaders establish principles concerning the way people (constituents, colleagues, and customers alike) should be treated and the way goals should be pursued. They create standards of excellence and then set an example for others to follow. Because the prospect of complex change can overwhelm people and stifle action, they set interim goals so that people can achieve small wins as they work toward larger objectives. They unravel bureaucracy when it impedes action; they put up signposts when people are unsure of where to go or how to get there; and they create opportunities for victory (Kouzes & Posner 2001). Although it is often easy to fall into the trap of providing solutions, directing responses, and serving as answer men, leaders operate more as consultants to others (Donaldson, 2006, p. 161). Far too much of the time principals seem to revert to "do as I say" instead of "do as I do". They provide lip service for ideas but never follow up with action. Principals must establish a process to evaluate school deficiencies. They must provide leadership for teachers, parents, and all stakeholders in the development of an improvement plan in their daily activities, leaders are magnets for problems, issues, and new ideas because they offer others ways to work on those problems. Principal cannot be the leader of the process and at the same time is a participant; it just doesn't allow a free flow of ideas (Seifert & Vornberg, 2002).

It isn't satisfactory that today's school principals are in the position of only giving direction and instruction. It is necessary that principals should be able to create a model for all partners of their schools. Because people are more disposed to follow the steps of the leaders rather than following their instructions.

*Encouraging the heart (EH)*

Accomplishing extraordinary things in organizations is hard work. To keep hope and determination alive, leaders recognize contributions that individuals make. In every winning team, the members need to share in the rewards of their efforts, so leaders celebrate accomplishments. They make people feel like heroes (Kouzes & Posner 2001). Effective leaders orchestrate rather than dictate improvement (Harris & Lambert, 2003). Good leaders motivate us and challenge us

and remain optimistic even in the face of adversity. They exist at all levels in any organization and most importantly, they generate development, change and improvement (Harris & Lambert, 2003). Schools principals are leaders of the schools. Principals are expected to carry the torch for whole-school concerns—establishing a vision, assuring smooth management, making the school responsive to school board or state requirements, or even foisting change on unwilling staff and students (Donaldson, 2006, p. 94). Principals are to encourage and empower all of the participants to analyze their situations and improve their actions to meet goals that are established by stakeholders as a group (Seifert & Vornberg, 2002).

Related to school leadership has a large number of researches in the literature. But, much of the research is overly theoretical offering those in schools a complex and rather inaccessible picture of effective school leadership in action. It is difficult to see how ‘transformational’, ‘moral’, ‘learning-centred’, ‘instructional’ and ‘pedagogical’ leadership relate and it is even more difficult to see how those in schools translate this amalgam of theory into any practical guidance (Harris & Lambert, 2003). Due to the “leadership practices inventory” directly measure the leadership practices of school principals. That’s why aim of the research, leadership practices inventory is to be adapted in to the Turkish.

## Method

### *Working Group*

Working group of the research consist of 436 teachers chosen by using the random sampling method among the teachers working in 2009-2010 educational years in Konya/Turkey. 194 of the teachers constituting the working group are female and 242 of them are male. Average working year of them are 15 years.

### *Leadership Practices Inventory*

The LPI consisted of 30 questions answered on a ten point scale. The LPI contained questions pertaining to five sub-dimensions of leadership titled as the Five Practices of Exemplary Leaders by Kouzes & Posner (2003). The five sub-dimensions are as follows: Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Others to Act, and Encouraging the Heart. Modeling the Way is best described as leading by example. Inventory taken from higher value represents more frequent use of a leadership behavior. Ten point of Inventory: (1) Almost never do what is described in the statement; (2) Rarely; (3) Seldom; (4) Once in a while; (5) Occasionally; (6) Sometimes; (7) Fairly Often; (8) Usually; (9) Very Frequently; and, (10) Almost always do what is described in the statement. Permission to use this survey was obtained in writing from Debbie Notkin, contracts manager of Wiley InterScience. The scale is designed five points during to Turkish adaptation process, because the scale is considered to be more clearly understood.

## Findings

### *Findings related to Exploratory Factor Analysis (EFA) of Leadership Practices Scale*

#### *Validity of the inventory*

Construction validity of the scale was tested by EFA, first -order Confirmatory Factor Analysis (CFA) and second-order CFA.

#### *The lingual equivalence and EFA results of the scale*

During the adaptation of the scale, it was first translated into Turkish by English teaching experts; then the Turkish text was retranslated into English, compared with the original text and found to be identical with it. Then Turkish and English forms of the scale were applied to 25 English Language Teachers. According to Özgüven (1994), the time interval between two

tests should be 2-4 weeks. After The Turkish and English forms of the scale are applied, Pearson correlation coefficients were examined in terms of both each items and sub-dimensions of the scale. Correlation coefficient between the Turkish and English forms of the scale was calculated as totally .91. Among the sub-dimensions, the least correlation coefficient was calculated as .72 for the sub-dimension "model the way". Correlation coefficients were calculated for the sub-dimensions of the scale as respectively .92 for "inspire a shared vision", .86 for "challenge the process" .85 for "encouraging the heart" and .84 for "enable others to act". Correlation between each item points of the scale is calculated as M1=.75, M2=.78, M3=.82, M4=.80, M5=.81, M5=.92, M6=.76, M8=.81, M9=.78, M10=.82, M11=.78, M12=.84, M13=.81, M14=.82, M15=.93, M16=.86, M17=.78, M18=.82, M19=.84, M20=.86, M21=.85, M22=.93, M23=.91, M24=.98, M25=.82, M26=.91, M27=.86, M28=.80, M29=.84, M30=.92.

Subsequent to permission obtainment from the Ministry of National Educational, the scale was administered by the researcher to 436 people consisting of primary and secondary school teachers and the obtained data were analyzed by using SPSS 16.0. During the analysis, when Kaiser-Meyer-Olkin test was found to be .82 and Bartlett's test was significant ( $X^2=9.470$ ,  $P=0,00$ ), EFA was conducted. EFA aims to reach a few meaningful structures which together explain of these variables from great number of variables. The basic criterion in evaluation of factor analysis results is factor loading which can be interpreted as the correlation between variables and factors. For factor load to be high is an indication that variables can be subsumed under the high factors in question (Büyüköztürk, 2004). If orthogonally exists between the factors of scale, varimax rotation technique is used. On the other hand, if there is a constant relational sequence, oblique rotation technique is generally used (Tabachnick & Fidell, 1996). In this research, varimax rotation technique was used as the relational level between factors of scale is under .32. The result of EFA of the scale was calculated and the results are given in Table 2.

Table 2.

*The Result of EFA*

Item no	Component				
	1	2	3	4	5
M1	,271	,289	,250	,275	,691
M2	,326	,320	,329	,228	,446
M3	,325	,322	,302	,315	,471
M4	,693	,329	,231	,210	,321
M5	,669	,348	,166	,283	,257
M6	,602	,316	,330	,340	,150
M7	,577	,224	,512	,219	,260
M8	,576	,179	,402	,353	,290
M9	,554	,239	,367	,297	,440
M10	,549	,375	,433	,212	,217
M11	,534	,386	,270	,164	,303
M12	,498	,324	,340	,282	,256
M13	,171	,719	,285	,240	,242
M14	,277	,623	,194	,066	,439
M15	,344	,593	,180	,273	,289
M16	,425	,580	,358	,191	,122
M17	,396	,569	,307	,218	,054
M18	,181	,404	,717	,278	,164
M19	,444	,251	,670	,056	,239
M20	,472	,176	,603	,351	,224
M21	,217	,370	,553	,367	,299
M22	,377	,351	,548	,252	,136
M23	,182	,189	,521	,346	,382
M24	,370	,333	,500	,360	,099
M25	,191	,107	,156	,807	,249
M26	,388	,267	,297	,534	,192
M27	,378	,315	,367	,524	,174
M28	,388	,397	,207	,514	-,029
M29	,222	,365	,369	,510	,177
M30	,369	,358	,270	,491	,160

As a result of the EFA, it was observed that some of the scale items were in different sub-dimensions unlikely the original scale. For example, while the items 16, 21 and 26 were in “Model the way” sub-dimension of the original scale, they took part in “Inspiring a shared vision” sub-dimension of the Turkish form. So “Model the way” sub-dimension consisting of 5 items in original scale was decreased to 3 items in Turkish form. As a consequence of these changes, “inspire a shared vision” sub-dimension of the Turkish form consisted of 9 items, “challenge the process” sub-dimension consisted of 5 items, “encouraging the heart” sub-dimension consisted of 7 items and “enable others to act” sub-dimension consisted of 6 items. Because of the cultural differences among the societies, item 16 “Asks for feedback on how his/her actions affect other people’s performance”, item 21 “Builds consensus around a common set of values for running our organization” and item 26 “Is clear about his/her philosophy of leadership” may have been considered in “inspire a shared vision” sub-dimension of the scale by the teachers working in Turkey. However, the scale kept its construction with 30 items and 5 sub-dimensions as it was in original scale. As a result of the correlation analysis, a meaningful difference among the factors of the scale was determined as the least .79, the most .87 ( $p < 0.01$ ). After these processes, CFA was moved on in Turkish adaptation process.

#### *Results of the Confirmatory Factor Analysis*

Within the scope of CFA, as the model can be theoretically determined previously, it can also be a model obtained from the result of the EFA (Büyüköztürk, Akgün, Özkahveci & 2004; Şimşek, 2007). After the EFA, the construction of the scale with five dimensions was tested by using the first-order CFA.

According to the results of the first-order factor analysis given in figure 1; adaptive values of the model was determined as Chi-square ( $\chi^2 = 1190.84$ ), Degree of freedom ( $df = 395$ ,  $P < 0.00$ ), Goodness of Fit Index ( $GFI = 0.85$ ), Normed Fit Index ( $NFI = 0.91$ ) Root Mean Square Error of Approximation ( $RMSE = 0.068$ ).

These values were found sufficient for the first-order CFA and the second-order CFA was moved on. According to the second-order factor analysis given in figure 2; adaptive values of the model was determined as Chi-square ( $\chi^2 = 1200.12$ ), Degree of freedom ( $df = 400$ ,  $P < 0.00$ ), Goodness of Fit Index ( $GFI = 0.84$ ), Normed Fit Index ( $NFI = 0.90$ ) Root Mean Square Error of Approximation ( $RMSE = 0.069$ ).

0.85 And higher GFI, AGFI, NFI values obtained from the first and second-order CFA were the result of the good coherence of the data to the model. Furthermore, RMSEA value between 0.05 and 0.10 and  $\chi^2 / df = 3.00$  showed that the model was in acceptable adaptive value (Kelloway, 1998; Cheng, 2001; Pang, 1996).

After these processes, it was thought that validity of the scale has been provided and reliability analysis of the scale was moved on.

#### *Reliability of the scale*

Reliability of the scale was tested by using Cronbach  $\alpha$ , Spearman Brown, Gutmann Split-Half techniques and the results are given in Table 3.

Tablo 3.

*Reliability of the scale was tested by using Cronbach  $\alpha$ , Spearman Brown, Guttman Split-Half techniques*

Sub-dimensions of the scale	Cronbach $\alpha$		Spearman Brown		Guttman Split-Half	
	R	p	R	p	R	p
Leadership Practices Inventory	.98	.00	.96	.00	.95	.00
Model the Way	.82	.00	.85	.00	.78	.00
Inspired the Shared Vision	.95	.00	.94	.00	.93	.00
Challenge The Process	.87	.00	.86	.00	.83	.00
Encouraging the Heart	.92	.00	.92	.00	.90	.00
Enable Others to Act	.91	.00	.91	.00	.91	.00

Cronbach  $\alpha$  value of the whole scale was determined as .98. Cronbach  $\alpha$  values of the sub-dimensions of the scale were determined as respectively .82 for "Modal the way, .95 for "inspire a shared vision", .87 for "challenge the process", and .92 for encouraging the heart". Besides, split-half test reliability of the scale was calculated by using Spearman Brown formula and it was observed that split-half test reliability of the whole scale was .96 and the split-half test reliability of the sub-dimensions were between .85 and .96. Furthermore, split-half test reliability of the scale has been calculated by using Guttman Split-Half technique and correlation coefficient of the whole scale was determined as .95 and correlation values for the sub-dimensions were between .83 and .95.

Table 4.

*Corrected item-total correlations of Leadership Practices Scale and the values related to differences of 27 percentage lower-higher groups*

Factor	Item No	Recovered Item Total Correlation	t
Model the Way	1	.68	-16.32**
	2	.69	-23.53**
	3	.68	-21.58**
	4	.83	-21.26**
Inspired the Shared Vision	5	.79	-23.32**
	6	.77	-22.99**
	7	.79	-22.67**
	8	.81	-25.21**
	9	.83	-22.53**
	10	.80	-23.34**
	11	.76	-21.24**
	12	.79	-23.23**
Challenge The Process	13	.70	-16.37**
	14	.69	-16.52**
	15	.72	-20.20**
	16	.71	-21.70**
	17	.66	-16.95**
	18	.80	-20.10**
Encouraging the Heart	19	.72	-16.31**
	20	.84	-21.72**
	21	.76	-19.79**
	22	.75	-21.84**
	23	.72	-15.64**
	24	.78	-22.14**
Enable Others to Act	25	.68	-12.10**
	26	.78	-19.08**
	27	.83	-24.69**
	28	.71	-17.78**
	29	.71	-18.11**
	30	.78	-20.01**

\*\* $p < .01$

According to Büyüköztürk (2004), item total correlation explains the relation between the points taken

from the test items and the total points of the test. High and positive total-item correlation shows that items exemplify similar behaviors. Statistical relevance can be taken as a criterion in interpreting the total-item correlation. Furthermore, it is usually accepted that items which have .30 and higher item total correlation distinguish the individuals well. Another way in the extend of item analysis is to test the differences between the item average points of the 27 percentage lower group and 27 percentage higher group constituted according to total points of the test by using non-related t test. Observed meaningful differences can be evaluated as an indicator of internal coherence of the test.

According to the result of the data analysis, it was observed that item total correlations of Leadership Practices Scale were between .66 and .84, t values (df=155) related to the differences in item points of 27 percentage lower and higher groups determined according to total points were between -12.10 and -24.69 ( $P < .001$ ). In these premises, it was concluded that items distinguished the individuals well and the test had interval coherence.

### Discussion

Aim of this research is determined as adapting the Leadership Practice Inventory developed by Kouzes & Posner (2003) to Turkish.

During the adaptation of the scale, it was first translated into Turkish by English teaching experts; then the Turkish text was retranslated into English, compared with the original text and found to be identical with it. Then Turkish and English forms of the scale were applied to 25 English Language Teachers. Pearson correlation coefficients were observed for both each item and sub-dimensions at the end of the application of the Turkish and English forms. The correlation coefficients between Turkish and English forms were calculated as totally .91. The correlation coefficients between sub-dimensions were calculated as respectively .72 for "model the way", .92 for 'inspire a shared vision', .86 for "challenge the process", .85 for "encouraging the heart" and .84 for "enable others to act". It was determined that the correlation coefficients among each item of the scale were also high.

Subsequent to permission obtainment from the Ministry of National Educational, the scale was administered by the researcher to 436 people consisting of primary and secondary school teachers and the data obtained were analyzed using SPSS 16.0. During the analysis, when Kaiser-Meyer-Olkin test was found to be .82 and Bartlett's test was significant ( $X^2=9.470$ ,  $P=0,00$ ), EFA was conducted. According to results of the EFA, original construction with 30 items and 5 sub-dimensions were kept. However, it was observed that some of the items were in different sub-dimensions from the original one. It was thought that the reasons of these changes were because of the cultural differences of the countries. As a result of the correlation analysis of the scale, a meaningful relation among the factors of the scale was determined as .79 for the lowest level and .87 ( $p < .01$ ) for the highest level. After this process, validity factor analysis was done during Turkish adaptation process.

After the EFA, the construction of the scale with 5 dimensions was tested by validity factor analysis. Validity factor analysis was performed by using Lisrel 8.51 package program. It was observed that the adaptive values obtained from the first-order validity factor analysis provided the criteria determined by Kelloway, 1998; Cheng, 2001 & Pang, 1996 and the second-order factor analysis process was moved on. According to the results given in figure 2, it was observed that second-order analysis was fit for the criteria in the first-order analysis. As a result of the validity factor analysis by Kouzes & Posner (2003), adaptation values of original scale were calculated as (Chi-Square = 399.9, df. = 363,  $p < .09$ ). These values showed a parallelism between Chi-Square/df values given in figures 1 and 2 which is adapted to Turkish.

After this process, the value of the scale was thought to have been provided and reliability analysis process of the scale was moved on. The Cronbach  $\alpha$  values of the scale were calculated as .82 for "Model the way" .95 for 'inspire a shared vision', .87 for "challenge the process" and .92 for "encouraging the heart". In the research evaluated workers' leaders' leadership applications by Kouzes & Posner (2003), Cronbach Alpha coefficient of the scale was calculated as between .87 and .93. Addition to this, It was observed that split-half test reliability of the scale was calculated by using Spearman Brown formula and split-half test of reliability of the whole scale was .96 and also the sub-dimensions were between .85 and .96. Besides, split-half test reliability was calculated by using Guttman Split-Half technique and correlation coefficient was calculated as .95 for the whole scale and between .83 and .95 for the sub-dimensions. As a last phase of the reliability analysis of the scale, the differences among items total correlations and the differences among items average points were calculated by using the t test.

According to the result of the data analysis, it was observed that item total correlations of Leadership Practices Scale were between .66 and .84, t values (df=155) related to the differences in item points of 27 percentage lower and higher groups determined according to total points were between -12.10 and -24.69 ( $P < .001$ ). In these premises, it was concluded that items distinguished the individuals well and the test had interval coherence.

As a result of the validity and reliability analysis, it was thought that Turkish adaptation process of the scale was completed. It could be asserted that after these processes, leadership practices scale had the quality of measuring the leadership practices of the principals in Turkish Education System.

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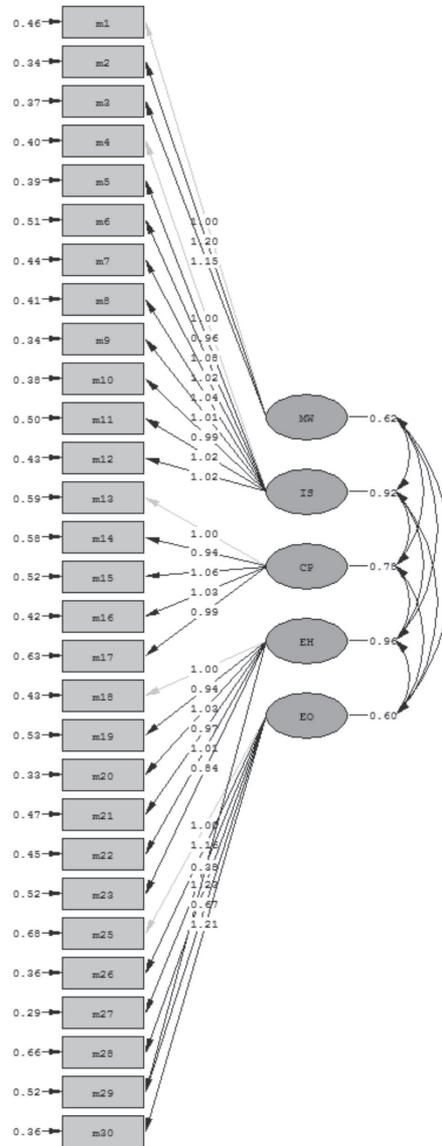


Figure 1: The result of first-order CFA

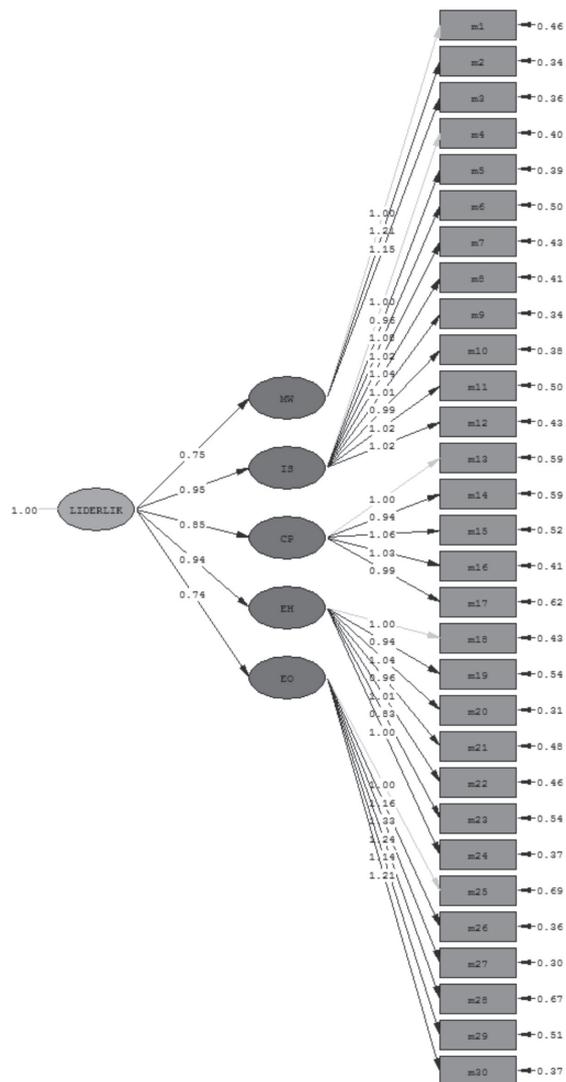


Figure 2: The result of second-order CFA

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### LİDERLİK UYGULAMALARI ÖLÇEĞİ TÜRKÇE FORMU

Lütfen görev yaptığınız okulun müdürü ile ilgili aşağıda verilen ifadelere katılma derecenizi x şeklinde işaretleyiniz

	Her zaman	Çoğunlukla	Bazen	Nadiren	Hiçbir zaman
1. Başkalarından beklediklerini kendisi de yaparak bir model oluşturur.					
2. Enerji ve zamanını birlikte çalıştığı insanların üzerinde uzlaştığı konulara harcar.					
3. Yükümlülüklerini ve vaatlerini mükemmel bir şekilde yerine getirir.					
4. Ulaşılmayı istediğimiz vizyonumuzu şekillendirir.					
5. Ulaşılabilir amaçları belirler, somut planlar yapar, üzerinde çalıştığımız program ve projeler için ölçülebilir hedefler ortaya koyar.					
6. Liderlik ilkeleri açıktır.					
7. Ortak değerlere bağlanma konusunda örnek olan insanları herkesin önünde açıkça takdir eder.					
8. Başarıyı kutlamanın yollarını bulur.					
9. Örgütü geliştirmek için ortak değerlerle etrafında uzlaşma sağlar.					
10. Davranışlarının insanları nasıl etkilediği ile ilgili geribildirimler alır.					
11. Zihnimizde, gelecekte ulaşmak istediğimiz noktanın heyecan verici bir resmini şekillendirir.					
12. İnsanların ortak görüşünün desteğini alarak uzun dönemli çalışmalar içerisine girebilir.					
13. Yeteneklerini test etmek için fırsatlar arar.					
14. Gelecekteki gelişmelerin bugünkü çalışmalarımızı nasıl etkileyeceği ile ilgili konuşur.					
15. İşlerimizi geliştirmenin yeni yollarını bulmak için okul dışında arayış içerisindedir					
16. İnsanların çalışmalarında değişiklikler ve yenilikler yapabileceğini test eder.					
17. Çalışanlarla gelecekle ilgili hayal ettiklerini paylaşır.					
18. İşini iyi yapan insanları takdir eder.					
19. İnsanları, başarıları ve katkıları için ödüllendirir.					
20. Takım üyelerini katkılarından dolayı destekler ve takdir eder.					
21. Kendisi ile birlikte çalışanlar arasında işbirliğini geliştirir.					
22. İnsanların yeteneklerine olan güvenini söylemeye önem verir.					
23. İnsanlara değer verir ve saygı duyar.					
24. İnsanların kendilerini geliştirmelerini ve mesleklerinde yeni beceriler edinmelerini destekler.					
25. İşlerini nasıl yapacakları konusunda insanları özgür bırakır.					
26. Çalışmalarımızın önemini ve amacını samimi bir şekilde açıklar.					
27. İnsanları kendi kararlarını verebilmeleri için destekler.					
28. Başarısızlık söz konusu olsa bile, risk almaktan çekinmez.					
29. Farklı bakış açısına sahip fikirleri dinleme konusunda isteklidir.					
30. Başarısızlıkları da öğrenme fırsatı olarak değerlendirir.					

## SUB-DIMENSIONS OF LEADERSHIP PRACTICES INVENTORY

<u>Turkish version</u>	<u>Original version</u>
Model Olma	Model the Way (MW)
Paylaşılan Vizyon Oluşturma	Inspiring a Shared Vision (IS)
Risk Alma	Challenging The Process (CP)
Tanım ve Takdir Etme	Encouraging The Heart (EH)
Takım Çalışmasına Odaklanma	Enabling Others To Act (EO)