



Development and Validation of School Principal's Leadership Practices Questionnaire

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Abstract:

Leadership is the key to the success of any organisation. The same is true to a school. We have seen many schools turned around thanks to good leadership. Keeping in view the importance of leadership to the success of an organisation, Principal's Leadership Practices Questionnaire with 58 items was developed from literature review to facilitate researchers, policy makers and principals, to find the leadership practices, find gaps and plan for improvement. Expert opinion was sought from psychologists and educationists for the validity of items. Items that were marked irrelevant were deleted. A pool of 56 items were left, that were then distributed to 200 principals, equally distributed by gender, to measure themselves on five- point Likert's Scale. Data was fed into SPSS to check the reliability. The final scale consists of 55 items with .91 Cronbach Alpha reliability.

Keywords: *Principal's leadership, School, Education, Likert's Scale*

Leadership plays a central role in the effectiveness and improvement of educational institutions. It is widely acknowledged that school principals significantly influence school culture, teacher performance, and student outcomes. According to James M. Kouzes and Barry Z. Posner (2007), leadership is not merely a position but a set of observable practices that can be learned and developed over time. Their model of exemplary leadership provides a comprehensive framework that has been widely used in educational leadership research.

The concept of leadership in education has evolved from traditional administrative roles to more dynamic and transformational practices. Daniel Goleman (2017) emphasizes that effective leaders adopt different leadership styles depending on the situation, highlighting the importance of emotional intelligence in leadership effectiveness. Similarly, Peter Senge (2017) explains that leaders play a crucial role in developing a shared vision within organizations, which fosters commitment and collective responsibility among stakeholders.

Kouzes and Posner (2007) proposed five core practices of exemplary leadership: modeling the way, inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart. These practices have been extensively validated in various organizational contexts, including education. "Modeling the way" emphasizes the importance of leaders acting as role models by aligning their actions with their values (Crow et al., 2017). "Inspiring a shared vision" involves engaging others in a common goal and motivating them to achieve it (Senge, 1990). "Challenging the process" encourages innovation and risk-taking, which are essential for institutional improvement (Kotter, 2018).

Furthermore, leadership effectiveness is closely linked with collaboration and trust-building. Research by Olusegun Fapohunda (2013) highlights that successful leaders foster teamwork, empower individuals, and create a supportive working environment. The practice of "enabling others to act" focuses on strengthening others by promoting participation and shared decision-making. In addition, "encouraging the heart" involves recognizing and appreciating the contributions of team members, which enhances motivation and organizational commitment (Kouzes & Posner, 2017).

In the context of educational measurement, the development of reliable and valid instruments is essential for assessing leadership practices. Robert F. DeVellis (2016) provides a systematic approach to scale development, including defining constructs, generating item pools, and testing reliability and validity. Similarly, Jum Nunnally (1978) emphasizes that reliability coefficients above 0.70 are acceptable for social science research, while higher values indicate stronger internal consistency.

Moreover, validity plays a critical role in ensuring that an instrument measures what it intends to measure. Content validity, often assessed through expert review, ensures that items adequately represent the construct domain. Rodrigues et al. (2017) suggest that a high content validity index indicates strong agreement among experts regarding the relevance of items. Factor analysis is also commonly used to examine the underlying structure of a scale and confirm its construct validity (Leech et al., 2015).

Despite the extensive research on leadership practices, there is a need for context-specific instruments that accurately measure school leadership in different educational settings. Most existing tools have been developed in Western contexts, which may not fully capture the dynamics

of leadership in developing countries such as Pakistan. Therefore, the development and validation of a localized leadership practices questionnaire is essential to provide reliable data for researchers, policymakers, and practitioners.

Method

Leadership Practices Scale was developed based on the five leadership practices of exemplary leadership proposed by Kouzes & Posner (2007) in their book *The Leadership Challenge*. Five sub-constructs for leadership practices given by Kouzes & Posner were Model the way, inspire a shared vision, Challenge the process, enable others to act & encourage the heart. Items were acquired in light of the different research articles. Scale was developed keeping in view the steps given by DeVellis (2016). These are i. Define construct, ii. Generate item pools, iii. Determine the format, iv. Expert review, v. considers inclusion of validated items, vi. Administer items to a development scale vii. Evaluate items and viii. Optimize scale length.

The first step is to define the construct. Leadership is a manner whereby a person influences a group of individuals to achieve a common objective or goal. Those people who are engaged in leadership are known as leaders and those whom leaders guide, and support to work are known as followers. Leadership is a process in which both leaders as well as followers are involved. Leaders use different working styles when looking at situations. They use different practices day to day (Goleman.D,2017). Kouzes and Posner (2007) give five practices of exemplary leadership. These practices are sub-constructs of the study which are defined below:

Model the way: In order to provide an example for others to follow, leaders need to be confident in their own beliefs and values. They have to develop their distinctive speech pattern. The group honours its promises and obligations. Leaders must be certain of their principles and philosophies in order to provide an example for others to follow. They must learn to speak in their unique way. The group keeps its pledges and commitments (Crow, Day & Moller, 2017).

Inspire a shared vision: Leaders have to engage others in a shared vision (Kouzes & Posner, 2007). The idea must be both interesting and attainable for people to want to join in and be inspired by it. There is always a bigger picture. Anything that benefits a broader group and is inextricably linked to a vision is for greater achievements. A leader's job is to connect each person's objectives to the greater good while occupying the space between his team and that goal. A leader must balance the varying good and ambitions of the team members in order to accomplish this. The bigger the benefit or objective that is accomplished, the more motivating the vision is. Finding any overriding motive to advance, adapt, and expand might lead to vision. (Senge, 1990).

Challenge the process: A leader has to balance the varying good and ambitions of the team members in order to accomplish this. The bigger the benefit or objective that is accomplished, the more motivating the vision becomes. Finding any dominating motivation to advance, adapt, and expand might lead to vision. (Kotter, 2018).

Enable others to act: Those leaders who work effectively with people are known as outstanding leaders. They form trust and promote cooperation. They enhance teamwork, cooperation, making choices, support the decisions made by others, and treat others with dignity and respect (Fapohunda,2013).

Encourage the Heart: Leaders who possess extraordinary qualities of leadership by rewarding others encourage the heart, and praise workers for well-done jobs. They encourage others and celebrate wins (Kouzes & Posner 2017).

In the second step an item development framework was developed for each of the four sub-constructs. A total of 58 items were developed for all the five sub-constructs on five point Likert's Type scale. These items were given to nine experts for review. Some items were deleted and others rephrased in light of the expert review. After considering their view for inclusion, a total of 56 items were left. The universal agreement approach yielded a content validity index of .98, which is very good (Rodrigues, Adachi, Beattie & McDermid, 2017). For reliability, the developed scale was administered to 200 principals on five five-point Likert Scale with 1 for never, 2 for rarely, 3 for sometimes, 4 for often, and 5 for always. Reliability statistics were run on the respondents; the final scale has 55 items with a Cronbach alpha value of .91. The scale was omitted of items that did not add to dependability. The following are specifics on item count and leadership practice's reliability:

Result

For establishing the psychometric properties of the scale internal consistencies, factor analysis, inter-item correlation was carried out.

Inter-item correlation shows the coherence of each item with the rest of the scale. The inter-item correlation ranged from .53 to .76 and it meant the scale was not unidimensional (Leech, Barrett & Morgan, 2015).

Factor analysis was carried out to know the latent variables in the scale. Only those items were retained that have a Eugene value of 1. The sample frequency test- the Kaiser-Meyer-Olkin measure was .926. This is greater than .70, indicating sufficient items for each factor (Leech, Barrett & Morgan, 2015). The value of Bartlett's Test of sphericity was significant with an alpha value of .0001 (<.05) indicating that there was a correlation between items (Leech, Barrett & Morgan, 2015). All communalities' values were greater than .30.

Next rigorous reliability study was carried out and using the column reliability if an item was deleted, the final scale had 55 items. Reliability of the final scale is given in table 1.

Table 1 *Reliability of PLPQ*

No. of Items	Cronbach Alpha
55	.91

Table 1 shows that the final scale had 55 items with Cronbach Alpha .91. According to Nunnally (1978), Hulinn Netemeyer & Cudeck (2001) and Rothbard & Edward (2003) reliabilities from .60 to .70 are considered acceptable, greater than .80 are good and greater than .95 are not necessarily good because that might show redundancies.

Reliability of the four sub-scales is given in table 2.

Table 2 *Reliability of Sub-Scales of PLPQ*

No.	Construct	Number Items	of Cronbach Alpha
1	Model the way	11	.72

2	Inspire a shared vision	11	.74
3	Challenge the process	12	.71
4	Enable others to act	13	.71
5	Encourage the heart	8	.70

Table 2 shows that reliability values of all four sub-scales are up to the mark. Table shows that Principal's Leadership Practices Scale has five sub-scales with Model the Way and Inspired a Shared Vision has 11 items each, Challenge the process has 12, Enable other to act has 13 and Encourage the Hearts has 8 items.

Discussion

The present study aimed to develop and validate a School Principal Leadership Practices Questionnaire based on the model proposed by James M. Kouzes and Barry Z. Posner (2007). The findings of the study indicate that the developed instrument is both reliable and valid for measuring leadership practices among school principals. The overall reliability of the scale (Cronbach's alpha = .91) suggests a high level of internal consistency, indicating that the items are measuring the same underlying construct effectively.

The results of the study are consistent with previous research on leadership practices. Kouzes and Posner (2007) emphasized that leadership behaviors can be systematically measured through well-developed instruments. The five sub-constructs identified in this study—modeling the way, inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart—align closely with their theoretical framework. This confirms that these dimensions are relevant and applicable in the context of school leadership.

The reliability values of the sub-scales, ranging from .70 to .74, are considered acceptable according to Jum Nunnally (1978), who suggested that reliability coefficients above .70 are adequate for social science research. This indicates that each sub-scale independently measures a specific dimension of leadership practices with reasonable consistency. The slightly lower reliability values compared to the overall scale may be due to the diverse nature of leadership behaviors, which require multiple dimensions to capture the complete construct.

The findings related to factor analysis further support the construct validity of the instrument. The Kaiser-Meyer-Olkin (KMO) value of .926 indicates excellent sampling adequacy, while Bartlett's test confirms that the items are sufficiently correlated for factor analysis. These findings are in line with the recommendations of Leech, Barrett, and Morgan (2015), who emphasize the importance of these measures in validating the structure of a scale. The retention of items with eigenvalues greater than 1 suggests that the scale has a clear underlying factor structure.

Moreover, the inter-item correlation values ranging from .53 to .76 indicate a moderate to strong relationship among items. This suggests that while the items are related, they are not redundant, which is important for maintaining the uniqueness of each item. According to DeVellis (2016), an effective scale should balance internal consistency with item diversity to ensure comprehensive measurement of the construct.

The study also highlights the importance of context in leadership research. While the leadership practices model by Kouzes and Posner has been widely used in Western contexts, this study confirms its applicability in the local educational setting. This is significant because leadership practices may vary across cultural and organizational contexts. The successful validation of this instrument provides a useful tool for researchers, policymakers, and educational administrators in assessing and improving leadership practices in schools.

In practical terms, the developed questionnaire can be used for self-assessment by school principals, professional development, and policy planning. It can help identify strengths and areas for improvement in leadership practices, thereby contributing to school effectiveness. As noted by Daniel Goleman (2017), effective leadership requires continuous reflection and adaptation, and tools such as this questionnaire can support that process.

However, some limitations of the study should be acknowledged. The sample was limited to 200 principals, which may restrict the generalizability of the findings. Future research may include a larger and more diverse sample to further validate the instrument. Additionally, further studies can explore the relationship between leadership practices and student outcomes to enhance the practical implications of the scale.

Conclusion

The present study successfully developed and validated a School Principal Leadership Practices Questionnaire based on the framework of James M. Kouzes and Barry Z. Posner (2007). The findings demonstrate that the instrument is both reliable and valid for assessing leadership practices among school principals. The high overall reliability (Cronbach's $\alpha = .91$) indicates strong internal consistency, while the acceptable reliability values of all sub-scales confirm that each dimension of leadership is measured effectively.

The results of factor analysis and inter-item correlation further support the construct validity of the scale. The strong KMO value and Bartlett's significant test confirm that the data are suitable for factor analysis and that the items are meaningfully related. These findings suggest that the developed questionnaire has a sound structure and can be confidently used in educational research and practice.

The study contributes to the field of educational leadership by providing a contextually relevant and empirically tested instrument. It addresses the need for locally developed tools that reflect the realities of school leadership in the given context. The questionnaire can serve as a valuable resource for self-assessment, professional development, and policy-making aimed at improving leadership effectiveness in schools.

In conclusion, the validated scale offers a practical and reliable means to measure leadership practices, identify areas for improvement, and support the overall development of school leadership. Future research may further enhance the scale by applying it to larger and more diverse samples and by examining its relationship with other educational outcomes such as teacher performance and student achievement.

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