Development and Validation of the Headteachers' Administrative Style Questionnaire (HASQ): A Tool for Assessing Leadership Practices

Abdul Sattar¹, Azmat Farooq Ahmad Khurram², Muhammad Asif³

¹ Ph.D. Scholar, Khawaja Fareed UEIT, Rahimyar Khan, Pakistan. Email: asd7pak@gmail.com
² Assistant Professor, Khawaja Fareed UEIT, Rahimyar Khan, Pakistan. Email: azmatfarooqazmat@gmail.com
³ Ph.D. Scholar, Khawaja Fareed UEIT, Rahimyar Khan, Pakistan. Email: muasif0333@gmail.com

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ABSTRACT

This study aimed to develop and validate a headteachers' administrative style questionnaire (HASQ) to assess leadership practices. The questionnaire items were adapted from Northouse's 2014 work, encompassing three administrative styles: Autocratic, Democratic, and Laissez-Faire. The HASQ showcased satisfactory internal consistency, as reflected by an overall Cronbach alpha of 0.837, meeting the acceptable reliability threshold. Consequently, the study underscores the HASQ as a valid and reliable tool for assessing the variety and intensity of headteachers' administrative styles. This study strongly recommends that educational stakeholders such as school authorities, researchers, and policymakers use the headteachers' administrative style questionnaire (HASQ) to assess headteachers' administrative styles. The insights gleaned from this tool could prove crucial for enhancing school management strategies and creating effective educational policies. Moreover, the HASQ could catalyze the promotion of more effective administrative styles, potentially contributing to improved educational outcomes.

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1. Introduction

Since the headteachers' Administrative Style Questionnaire (HASQ) is used to evaluate facets of school leadership like "vision," "communication," "collaboration," "innovation," "accountability," and "empowerment," its creation and validation are crucial. It could contribute to the study on how school leadership affects teaching-learning. To achieve Education 2030 Agenda target 4c, UNESCO emphasizes school leadership. It may assist headteachers in identifying their leadership strengths and weaknesses; determining their administrative style and how it aligns with best leadership practices; informing policymakers and educational stakeholders about school leadership in a variety of scenarios; revealing headteachers' administrative styles by location, level, type, and size; and assisting headteacher and aspiring leader training.

The administrative style of a headteacher is crucial because it has a considerable impact on the quality of instruction and acquired knowledge, the institution's culture and climate, and the health, happiness, and success of both students and faculty. According to the findings of recent studies, the leadership of the school administrator has the second-largest impact on the academic outcomes of children within the school, after only classroom instruction. Foster leadership in others by enabling teachers, students, and other stakeholders to participate in decision-making and school development (Yeigh et al., 2019). The role of the headteacher is to cultivate a learning environment in which students feel safe, encouraged, and driven to study (Edition, 2013). Communicate and implement this goal with the school community as the headmaster. The role of the headteacher is to foster an environment favorable to learning in which pupils feel protected and supported. Headteachers are responsible for managing people, information, and procedures inside their institutions by efficiently using available resources, monitoring progress, and resolving problems. Adapt to the challenges and opportunities given
by a changing context, such as the impact of the pandemic on the daily operations of schools and academic performance (Dare & Saleem, 2022).

D’Innocenzo et al. (2016) emphasized that leadership involves one individual influencing other group members to willingly participate in group tasks and objectives over an extended period within a specific organizational context. Furthermore, their research suggests that effective leadership development requires a significant time frame of five to ten years. Leadership style plays a crucial role in shaping the dynamics within a group. It refers to how an individual provides guidance, executes plans, and inspires others. Tende and Alagah (2017) support this notion, stating that employees perceive and interpret leadership style based on their leader’s explicit and implicit actions. These actions indicate the leader's preferred approach to leading and influencing their team.

Understanding the concept of leadership and its various styles is essential in organizational settings. Bhargavi and Yaseen (2016) explored leadership styles in-depth and identified three distinct administrative styles: autocratic, democratic, and laissez-faire. As Iqbal et al. (2015) noted, Autocratic leaders tend to dictate tasks and methods without seeking input from their employees. On the other hand, Chukwuwa (2019) suggests that a participative or democratic administrative style involves employee input in decision-making while the leader retains ultimate authority. Another style, as described by Shulhan (2018), is delegative or laissez-faire, where employees are empowered to make decisions while the leader remains accountable.

Concerning school headteachers, Owan (2018) argues that ideally, they should adaptively and proactively employ their administrative style based on the specific situation. However, there is a tendency among headteachers to adopt an authoritative style, as observed by Khan et al. (2015). They further note that while some headteachers consult employees in decision-making processes within a participative or democratic administrative style, they still retain the final authority, indicating a gap between the ideal and current scenarios.

To address the challenges within the education system, particularly in Pakistan, Althaqafi (2022) highlights the importance of evaluating headteachers' administrative styles. This evaluation process is complex yet crucial for understanding and improving the effectiveness of educational leadership. Consequently, the researchers aimed to create and validate a tool, the Headteachers Administrative Styles Questionnaire (HASQ), to assess the administrative styles of headteachers.

2. Literature Review

The administrative style of headteachers significantly impacts numerous facets of an educational institution. It profoundly impacts the culture within a school, including its values, behaviors, and overall atmosphere (Kraft et al., 2016). It is linked to staff morale, job satisfaction, and turnover (Boyd et al., 2016). Headteachers' administrative style indirectly influences student achievement by establishing an environment conducive to learning and directly through strategic resource allocation (Robinson et al., 2008). It can significantly shape the school climate, which includes the relationships among staff, students, and parents (Hernandez & Seem, 2004). Headteacher's administrative style can influence teacher professional development opportunities. For instance, distributed administrative style encourages collective learning and capacity building (Alblooshi et al., 2021). Headteachers' administrative styles can impact the distribution and use of resources, influencing school efficiency (Grissom et al., 2015) and further impacting the relationship between the school and parents, the local community, and other external stakeholders (Jeynes, 2016). It is worth mentioning that the administrative style of headteachers plays a pivotal role in managing changes within the school. For example, transformational leaders are likelier to engage staff and students in the change process (Herold et al., 2017).

Nagarathinam (2020) posited that the administrative style is a method for guiding, enacting plans, and motivating individuals, which employees perceive through their leader's explicit and implicit actions (Ravindranath, 2016). The first substantial investigation of leadership styles was conducted by Kurt Lewin in 1939, identifying various leadership styles. Iqbal et al. (2015) explained that leaders direct employees without soliciting their advice in an autocratic or
authoritative administrative style. In contrast, the participative or democratic administrative style involves employees in decision-making, while the leader retains ultimate authority. A delegative or laissez-faire administrative style empowers employees to make decisions while the leader remains accountable (Morkel et al., 2021). Mozammel and Haan (2016) noted that management style is critical to organizational success due to its impact on employee engagement and performance. Kövecses-Gősi (2018) observed that most headteachers adapt their administrative style to the situation, often adopting an authoritative approach focused on metacognitive self-consciousness and quality assurance.

Lambersky (2016) emphasized the importance of headteachers' administrative style in shaping student and teacher performance and overall school success. This study also explores headteachers' administrative styles and their respective responsibilities and roles. Rothstein (2015) argued that no single management style is universally effective; instead, a combination of styles is most effective when applied appropriately based on the situation. Bobkova et al. (2015) considered the school leader crucial in creating an environment that prepares students for future challenges.

Volchik et al. (2018) asserted that instruction is dynamic to the social and economic growth of any country and the personal growth of its citizens. Singh (2015) maintained that education, in its various forms, transmits desirable values and knowledge to society members.
Asiyai (2022) argued that quality education hinges on implementing quality assurance practices and their relevance to human and societal conditions. Tekavc et al. (2015) agreed that quality encompasses various dimensions, such as school system excellence, inspection and supervision, examination, and teacher quality.

In most schools, headteachers tend to adapt their administrative style to the situation at hand, predominantly employing an authoritative approach. However, in autocratic administrative styles, leaders often exhibit a more commanding demeanor. In contrast, participative or democratic leadership involves consulting employees in decision-making processes while retaining ultimate decision-making authority. It is evident that a discrepancy exists between the current and ideal utilization of administrative styles for the efficient operation of educational institutions. Consequently, it became imperative to develop and validate an assessment tool called the headteachers administrative styles questionnaire (HASQ) to evaluate headteachers’ administrative styles.

The following crucial recommendations were supplied by a survey of the pertinent literature about how to create and verify a questionnaire. As a result, useful recommendations such as (a) setting the questionnaire's goals were followed before, throughout, and after the development and validation processes of the headteachers administrative styles questionnaire (HASQ). Brief and pertinent questions (b), a review of pertinent research (c), the formulation of the item section (d), the validation and reliability process (e), a revision of the questionnaire (f), and recommendations (g) are all included.

2.1. Validation of Headteachers’ Administrative Style Questionnaire (HASQ)

Developing and validating a questionnaire is critical in survey research, providing reliable and accurate data collection. A well-constructed questionnaire begins with clearly understanding its intended purpose and target audience (Cobern & Adams, 2020). Revilla et al. (2016) underscored the importance of clarity and comprehension in questionnaire items, recommending the avoidance of jargon, technical language, or ambiguous phrases. Developing and validating questionnaires requires meticulous attention to design, validation, and potential issues. The validation of the questionnaire is crucial (Khalaf, 2019) and encompasses both content validity (Polit et al., 2016) and construct validity (Knekta et al., 2019). Reliability, too, is paramount (Tavakol & Dennick, 2011).

Cross-cultural validation of questionnaires is becoming more important in a world that is becoming more globalized (Beaton et al., 2018). This process involves translating and adapting the questionnaire, then testing it within the target culture to ensure its validity and reliability. The effectiveness of an instrument hinges on its validity, reflecting the accuracy with which the data represents the subject under investigation (Taherdoost, 2021). Ensuring the validity of a tool means that it measures the aspects it intends to (Atta-Asiedu, 2020). Validity is typically divided into content, face, and construct validity. Construct validity is subdivided into convergent and discriminant (Khurram et al., 2020; Ramzan et al., 2022).

**Types of Validity**

- **Content Validity**
- **Face Validity**
- **Construct Validity**
  - **Convergent Validity**
  - **Discriminant Validity**

**Figure 3:**

Content validity is essential for a questionnaire to accurately measure the intended concept or construct. Expert review and the Content Validity Ratio (CVR) can establish it. Expert review involves consulting subject matter experts (SMEs) who can evaluate the questions critically, providing feedback on relevance, clarity, and comprehensiveness. They can also suggest improvements and additional items to enhance content validity (Khurram et al., 2020).
Lawshe (1975) developed the CVR to quantify content validity by calculating the proportion of experts who agree that an item is essential. A higher CVR indicates better content validity, and items with negative or low CVRs should be considered for removal or modification. The CVI measures the overall content validity of a questionnaire, with a higher CVI indicating more valid content; an acceptable CVI should be 0.78 or higher (Khurram et al., 2020).

Face validity is the amount to which a questionnaire appears to measure the desired construct. It is a subjective evaluation of whether the questionnaire appears relevant, clear, and appropriate for the research context (Schmitt et al., 2013). Face validity helps establish credibility and acceptance among participants and stakeholders. To enhance face validity, Khurram et al. (2020) suggest incorporating expert review and pilot testing, contributing to overall research quality and increasing the likelihood of obtaining accurate and reliable data.

The degree to which a measurement faithfully represents the theoretical construct it seeks to examine is one of the criteria used to determine the construct validity of a measurement. Convergent validity and discriminant validity are two subtypes of construct validity. Examining both allows researchers to establish construct validity, ensuring instruments accurately measure intended constructs and providing confidence in the research results (Ramzan et al., 2022). The degree to which a measure correlates with other measures theoretically connected to the assessed construct is considered when determining its convergent validity. High correlations between these measures indicate strong convergent validity, proving that the questionnaire accurately measures the intended construct. Examining the extent to which a measure is not connected with or has weak correlations with unrelated construct measures is what we mean when discussing discriminant validity. Low correlations between these measures indicate strong discriminant validity, proving that the questionnaire measures the intended construct and not unrelated constructs.

3. Methodology

In the initial phase, an in-depth literature review was conducted, followed by focused group discussions involving peers, leading headteachers, faculty members of the Department of Education, and administration experts to determine the anticipated factors for the questionnaire. Consequently, questionnaire items were adapted from Introduction to Leadership: Concepts and Practice (Northouse, 2014) and modified to fit local contexts. The preliminary questionnaire titled headteachers’ administrative style questionnaire (HASQ) contained 18 items, which were subsequently adjusted under three factors. Items 1-6 pertained to the autocratic administrative style, items 7-12 pertained to the democratic administrative style, and items 13-18 pertained to the laissez-faire administrative style.

Subsequently, the headteachers' administrative style questionnaire (HASQ) was shared with several local and international experts through a Google Sheet to gather feedback on language clarity, appropriateness, usability, and alignment of items with the identified factors. A total of 17 experts, including four international administration experts, provided their valuable opinion. Based on the feedback received, the content validity ratio (CVR) and the content validity index (CVI) were calculated using MS Excel. Lawshe (1975) determined that the cut value should be 0.42 for a group of 15 experts and 0.49 for a group of 20 experts. The calculated values of every single item were higher than the threshold allowed. Thus, no items were deleted, as their CVR value remained above 0.49.

Table 1: CVR Values of the Items of Headteachers' Administrative Style Questionnaire (HASQ)

<table>
<thead>
<tr>
<th>Items</th>
<th>CVR</th>
<th>Cut-value</th>
<th>Items</th>
<th>CVR</th>
<th>Cut-value</th>
<th>Items</th>
<th>CVR</th>
<th>Cut-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>0.53</td>
<td>0.49</td>
<td>D1</td>
<td>0.65</td>
<td>0.49</td>
<td>L1</td>
<td>0.65</td>
<td>0.49</td>
</tr>
<tr>
<td>A2</td>
<td>0.65</td>
<td>0.49</td>
<td>D2</td>
<td>0.88</td>
<td>0.49</td>
<td>L2</td>
<td>0.65</td>
<td>0.49</td>
</tr>
<tr>
<td>A3</td>
<td>0.88</td>
<td>0.49</td>
<td>D3</td>
<td>0.53</td>
<td>0.49</td>
<td>L3</td>
<td>0.53</td>
<td>0.49</td>
</tr>
<tr>
<td>A4</td>
<td>0.76</td>
<td>0.49</td>
<td>D4</td>
<td>0.88</td>
<td>0.49</td>
<td>L4</td>
<td>0.53</td>
<td>0.49</td>
</tr>
<tr>
<td>A5</td>
<td>0.53</td>
<td>0.49</td>
<td>D5</td>
<td>0.88</td>
<td>0.49</td>
<td>L5</td>
<td>0.53</td>
<td>0.49</td>
</tr>
<tr>
<td>A6</td>
<td>0.53</td>
<td>0.49</td>
<td>D6</td>
<td>0.65</td>
<td>0.49</td>
<td>L6</td>
<td>0.76</td>
<td>0.49</td>
</tr>
</tbody>
</table>
The results of the headteachers' administrative style questionnaire (HASQ) are summarized in Table 1, which lists each item's value. According to the guidelines established by Lawshe (1975), the table demonstrates that the calculated CVR values are higher than 0.49, which is considered to be acceptable.

![Figure 4: Comparison of Calculated CVR and Lawshe's Critical Values](image)

The CVR that was calculated and Lawshe's crucial values for the items on the headteachers' administrative style questionnaire (HASQ) are compared in Graph 4. It demonstrates that all the CVR values exceed the critical values. The CVI value was calculated to be 0.8, which is satisfactory as it surpasses Lawshe's cut value. Thus, the content and face validity of the headteachers' administrative style tool (HASQ) was ensured.

### 3.1. Pilot Testing of Headteachers' Administrative Style Questionnaire (HASQ)

A sample size of 10–15 participants per item is adequate for factor analysis, as Khurram et al. (2020) and Ramzan et al. (2022) suggested. Accordingly, the headteachers' administrative style questionnaire (HASQ) was pilot tested on 191 teachers (SSTs/SSEs) from the education department, excluding the study's participants. Exploratory and confirmatory factor analyses were conducted to validate the headteachers' administrative style questionnaire (HASQ).

### 3.2. Exploratory Factor Analysis (EFA) of Headteachers' Administrative Style Questionnaire (HASQ)

Exploratory factor analysis (EFA) is a statistical technique typically utilized to uncover the underlying structure of a set of observed variables without imposing a predetermined structure (Khurram et al., 2020). For the headteachers' administrative style questionnaire (HASQ), an EFA was conducted using SPSS version 27, implementing principal component analysis for extraction and Varimax rotation, an orthogonal rotation method, with Kaiser Normalization. The factor loadings of the items are reported in Table 2.

The KMO measure of sampling adequacy is a statistic that denotes the proportion of variance among variables that could be attributed to underlying factors. Higher values, nearing 1.0, suggest that factor analysis may suit the data. KMO values above 0.70 are generally considered acceptable. On the other hand, Bartlett's Test of Sphericity tests the hypothesis that the correlation matrix is an identity matrix, suggesting that variables are unrelated and, therefore, unsuitable for structure detection. A significant test, represented by a small p-value, indicates that some relationships exist between the variables. While there is no strict cutoff value, a significance level (p-value) less than 0.05 is commonly used to denote statistical significance. Kaiser-Meyer-Olkin Measure of Sampling Adequacy is .867, greater than 0.7, and is acceptable. Similarly, Bartlett's Test of Sphericity value is p=.000, which is significant, indicating a poor fit (Bentler & Bonett, 1980; Kline, 2015).

The main goal of any Exploratory Factor Analysis (EFA) is to make it easier to understand the results. Methods like Varimax and Promax rotation are commonly used to achieve this. By switching their positions, the variables affect one aspect more strongly while having less effect on the others. Because it needs less mental effort, this technique, frequently called a “simple structure,” simplifies factor analysis (Brown, 2015). The EFA factor loadings depict the associations between the observable variables and the underlying factors. They could be anything from minus one to plus one. A loading close to +1 means the variable strongly relates to the factor positively.
On the other hand, a loading that is near -1 suggests that there is a strong unfavorable association. When the loading is close to 0, the variable has no substantial relationship with the factor (Brown, 2015; Henson & Roberts, 2006). Khurram et al. (2020) advised that items should only be retained in a questionnaire if their factor loading was at least 0.50 on their respective scales. This recommendation was made about the retention of items in the questionnaire.

Table 2: Factors Loading of Headteachers’ Administrative Style Questionnaire (HASQ)

<table>
<thead>
<tr>
<th>Items</th>
<th>Autocratic Administrative Style</th>
<th>Democratic Administrative Style</th>
<th>Laissez-Faire Administrative Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>.916</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A2</td>
<td>.886</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A3</td>
<td>.894</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A4</td>
<td>.925</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A5</td>
<td>.944</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A6</td>
<td>.949</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D1</td>
<td></td>
<td>.741</td>
<td></td>
</tr>
<tr>
<td>D2</td>
<td></td>
<td>.763</td>
<td></td>
</tr>
<tr>
<td>D3</td>
<td></td>
<td>.683</td>
<td></td>
</tr>
<tr>
<td>D4</td>
<td></td>
<td>.741</td>
<td></td>
</tr>
<tr>
<td>D5</td>
<td></td>
<td>.751</td>
<td></td>
</tr>
<tr>
<td>D6</td>
<td></td>
<td>.793</td>
<td></td>
</tr>
<tr>
<td>L1</td>
<td></td>
<td></td>
<td>.713</td>
</tr>
<tr>
<td>L2</td>
<td></td>
<td></td>
<td>.699</td>
</tr>
<tr>
<td>L3</td>
<td></td>
<td></td>
<td>.548</td>
</tr>
<tr>
<td>L4</td>
<td></td>
<td></td>
<td>.731</td>
</tr>
<tr>
<td>L5</td>
<td></td>
<td></td>
<td>.682</td>
</tr>
<tr>
<td>L6</td>
<td></td>
<td></td>
<td>.739</td>
</tr>
</tbody>
</table>

Table 2 indicates that all the values of factor loadings are greater than 0.50 and in line with the criterion. Thus, all the headteachers’ administrative style questionnaire (HASQ) variables are strongly loaded onto the factor in a positive direction. They were retained, and none were removed.

3.3. Confirmatory factor analysis (CFA) of Headteachers’ Administrative Style Questionnaire (HASQ)

Confirmatory factor analysis was used to verify the structure proposed by EFA because it provided evidence of how well the assumed structure fit the observed data and helped establish the convergent and discriminant validity of the headteachers’ administrative style questionnaire. EFA was used to verify the factor structure proposed by CFA because it provided evidence of wellness of the assumed factor structure fit the observed data (HASQ).

3.4. Model Fit of Confirmatory Factor Analysis (CFA) of Headteachers’ Administrative Style Questionnaire (HASQ)

In Confirmatory Factor Analysis, model fit indicates how closely the anticipated theoretical model, or the latent structure of the questionnaire, aligns with the collected data. To be more specific, it evaluates the degree to which the detected and expected matrices differ from one another. Researchers employed several fit indices for the headteachers’ administrative style questionnaire (HASQ) to assess the model fit. The Chi-square Test measured the discrepancy between the observed and predicted covariance matrices. A non-significant Chi-square value indicates a good model fit (Schermelleh-Engel, Moosbrugger, & Müller, 2003), however significant, indicates a poor fit (Bentler & Bonett, 1980; Kline, 2015). Comparison is made between the proposed model and a null model using an incremental fit index called the Comparative Fit Index (CFI). A CFI value nearing 1, especially values greater than 0.95, suggests a good fit (Börjesson et al., 2015; Li et al., 2018). The Tucker–Lewis Index (TLI), also known as the Non-Normed Fit Index (NNFI), compares the chi-square value of the proposed model to that of the null model. Like CFI, a TLI value nearing 1, especially above 0.95, generally indicates a good fit (Börjesson et al., 2015; Li et al., 2018). The Root Mean Square Error of Approximation (RMSEA) is an absolute fit measure that accounts for model complexity. Lower RMSEA values suggest a better fit, with values up to 0.05 indicating a good fit and up to 0.08 suggesting a reasonable fit (Browne & Cudeck, 1993).
The Standardized Root Mean Square Residual (SRMR) is another absolute fit measure. It computes the square root of the difference in the sample covariance matrix and the predicted covariance model's residuals. Lower SRMR values, below 0.08, are generally deemed good (Börjesson et al., 2015; Li et al., 2018). The Adjusted Goodness of Fit Index (AGFI), a variant of the Goodness of Fit Index (GFI), adjusts for the degrees of freedom in a model. These indices, including CFA, are used in structural equation modeling to assess how well the specified model reproduces the sample data (Schermelleh-Engel et al., 2003). AGFI values range from 0 to 1, with values closer to 1 indicating a better fit. Conventionally, AGFI values above 0.90 often signify a good fit, though this threshold is not universally agreed upon and should be interpreted alongside other fit indices within the specific research context (Schermelleh-Engel et al., 2003).

The CMIN/df ratio, branded as the Normed Chi-Square, is the Chi-Square (CMIN) ratio to the degrees of freedom (df). This statistic adjusts the Chi-Square test to the sample size in CFA. It is a relative fit index often favored over the simple Chi-Square test for determining model fit because sample size is less subtle (Schermelleh-Engel et al., 2003). A lower CMIN/DF ratio indicates a better model fit. Khurram et al. (2020) and Brown (2015) suggested that a ratio of less than 3 is acceptable. However, this ratio is only one fit measure and should be used with other fit indices for a more comprehensive evaluation.

Table 3: Model Fit Summary of Headteachers’ Administrative Style Questionnaire (HASQ)

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Consistency</th>
<th>Index Value</th>
<th>Criterion Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFI</td>
<td>0.97</td>
<td>above 0.95</td>
<td>A good fit, with values up to 0.05</td>
</tr>
<tr>
<td>TLI</td>
<td>0.96</td>
<td>above 0.95</td>
<td>A reasonable fit with values up to 0.08 (&gt;0.05 and &lt;0.08)</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.069</td>
<td>below 0.08</td>
<td>Excellent fit: AGFI is close to 1, typically greater than 0.95.</td>
</tr>
<tr>
<td>SRMR</td>
<td>0.017</td>
<td>below 0.08</td>
<td>Good fit: AGFI values greater than 0.90.</td>
</tr>
<tr>
<td>AGFI</td>
<td>0.836</td>
<td>below 0.90</td>
<td>Mediocre to poor fit: AGFI value less than 0.90.</td>
</tr>
<tr>
<td>CMIN/df</td>
<td>1.914</td>
<td>below 3</td>
<td></td>
</tr>
</tbody>
</table>

The interpretation of model fit indices in Table 3 suggests a suitable fit for the headteachers’ administrative style questionnaire (HASQ). The Chi-square value was reported as 3426.1, suggesting a model fit (Brown, 2015). However, the Comparative Fit Index (CFI) was reported as 0.965, which is greater than the cut value (i.e., 0.95) or above, usually indicating a good fit (Börjesson et al., 2015; Li et al., 2018).

Figure 5: CFA Model Fit of Headteachers’ Administrative Style Questionnaire (HASQ)

Similar to the CFI, the Tucker-Lewis Index (TLI), which ranges from 0 to 1, was reported as 0.96. According to common guidelines, this value indicates a good fit (Börjesson et al., 2015;
Li et al., 2018). The Root Mean Square Error of Approximation (RMSEA) was reported as 0.069, which falls greater than the commonly used cutoff value of 0.05, suggesting a reasonable fit, as Browne and Cudeck (1993) indicated. The Standardized Root Mean Square Residual (SRMR) was given as 0.02, below the conventional cutoff of 0.08, suggesting a good model fit (Börjesson et al., 2015; Li et al., 2018; Hu & Bentler, 1999). Schermelleh-Engel et al. (2003) indicated that the Adjusted Goodness of Fit Index (AGFI) was reported as 0.84, below the conventional cutoff of 0.90, indicating a mediocre fit. Carmines and McIver (1981) reported that the ratio of chisquare minimum to degrees of freedom (CMIN/df) was reported as 1.91, less than the conventional cutoff of 3, indicating a good model fit. Thus, the fit statistics reported in Table 4 for the headteachers’ administrative style questionnaire (HASQ) suggest that the model satisfies the conventional criteria for a good fit.

The pictorial illustration of the CFA of headteachers’ administrative style questionnaire (HASQ) also affirms that items were loaded onto three distinct sub-factors: Autocratic Administrative Style, Democratic Administrative Style, and Laissez-Faire Administrative Style.

Six (6) items were loaded against each sub-factor.

Table 4: Reliability Values of Headteachers’ Administrative Style Questionnaire (HASQ)

<table>
<thead>
<tr>
<th>Scale</th>
<th>Number of Statements</th>
<th>Mean</th>
<th>SD</th>
<th>Reliability Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autocratic Administrative Style</td>
<td>6</td>
<td>26.3</td>
<td>3.4</td>
<td>.977</td>
</tr>
<tr>
<td>Democratic Administrative Style</td>
<td>6</td>
<td>19.5</td>
<td>2.3</td>
<td>.913</td>
</tr>
<tr>
<td>Laissez-Faire Administrative Style</td>
<td>6</td>
<td>15.6</td>
<td>2.4</td>
<td>.898</td>
</tr>
<tr>
<td>HASQ Questionnaire</td>
<td>18</td>
<td>61.4</td>
<td>4.8</td>
<td>.837</td>
</tr>
</tbody>
</table>

The test results confirmed the validity and reliability of the model, which comprised 18 items (α = 0.837). The three sub-factors—Autocratic Administrative Style, Democratic Administrative Style, and Laissez-Faire Administrative Style—contained six items, with Cronbach’s alpha coefficients of α = 0.977, α = 0.913, and α = 0.898, respectively. These findings provide empirical support for using the headteachers’ administrative style questionnaire (HASQ) to measure the type and level of headteachers’ administrative style.

This research contributes evidence for the reliability and validity of the headteachers’ administrative style questionnaire (HASQ) within a sample of public secondary school teachers in the school education department. An initial literature review guided the decision to measure headteachers’ administrative style using three sub-factors. The questionnaire items were adapted from Northouse’s (2014) work, “Introduction to Leadership: Concepts and Practice,” and were modified to suit local contexts. The preliminary HASQ consisted of 18 items distributed among three factors: Autocratic Administrative Style (items 1-6), Democratic Administrative Style (items 7-12), and Laissez-Faire Administrative Style (items 13-18).

Expert evaluations were used to determine content validity using the CVR and CVI. Additionally, face validity was confirmed through further expert review and pilot testing—measures that contribute to the overall methodological rigor of the study and improve the likelihood of collecting accurate and reliable data. Construct validity, encompassing Convergent and Discriminant Validity, was examined through Exploratory Factor Analysis (EFA), and the factor structure of the questionnaire items was subsequently validated.

The resulting questionnaire, comprising 18 items, aligns with the original version’s three-factor structure described in Northouse’s (2014) work. The findings from the Confirmatory Factor Analysis (CFA) lent further support to this structure. The internal consistencies of all the sub-factors and the questionnaire as a whole were satisfactory, with an overall internal consistency (Cronbach alpha) of 0.837, a value typically considered indicative of acceptable reliability, i.e. 0.7 ≤ α < 0.8 (Tavakol & Dennick, 2011). Therefore, the HASQ presents substantial evidence of being a valid and reliable tool for assessing the type and level of headteachers’ administrative style.

4. Conclusion and Policy Recommendations

This study aimed to develop and validate a headteachers’ administrative style questionnaire (HASQ) to assess leadership practices. A thorough literature review helped develop the questionnaire and focus group discussions, resulting in a primary tool with eighteen items rated on a five-point Likert scale. The questionnaire items were adapted from Northouse’s 2014 work.
work, encompassing three administrative styles: Autocratic, Democratic, and Laissez-Faire. The HASQ underwent robust validation processes, including expert content, face validity reviews, and a pilot test involving 190 secondary school teachers from public institutions. Construct validity was examined through Exploratory Factor Analysis (EFA). Data were analyzed using MS Excel version 19, SPSS version 27, and AMOS version 23, which affirmed the questionnaire's validity, reliability, and model fit. The Confirmatory Factor Analysis (CFA) reinforced the three-factor structure of the questionnaire, reflecting the original framework proposed by Northouse. The statistical indices showcased robust model fit: Comparative Fit Index (CFI) = 0.97 (greater than the recommended 0.95), Tucker-Lewis Index (TLI) = 0.96 (also surpassing the suggested 0.95), Root Mean Square Error of Approximation (RMSEA) = 0.069 (signifying a good fit as values up to 0.05 are considered acceptable), Standardized Root Mean Square Residual (SRMR) = 0.017 (below the preferred 0.08), and Ratio of chi-square minimum to degrees of freedom (CMIN/df) = 1.91 (below the recommended 3). The HASQ showcased satisfactory internal consistency, as reflected by an overall Cronbach alpha of 0.837, meeting the acceptable reliability threshold.

Consequently, the study underscores the HASQ as a valid and reliable tool for assessing the variety and intensity of headteachers' administrative styles. This study strongly recommends that educational stakeholders such as school authorities, researchers, and policymakers use the headteachers' administrative style questionnaire (HASQ) to assess headteachers' administrative styles. The insights gleaned from this tool could prove crucial for enhancing school management strategies and creating effective educational policies. In addition, the HASQ has the potential to act as a catalyst for the development of more successful administrative methods, which could potentially contribute to improved educational outcomes.

According to the findings of the research, it is recommended that educational researchers, policymakers, and school administrators give serious consideration to implementing the headteachers' administrative style questionnaire (HASQ), which has been demonstrated to be trustworthy and validated. It is able to evaluate the administrative styles of headteachers, which may provide significant insights for the management of schools and the formulation of policies. The results of the HASQ can be utilized in the creation of individualized professional growth and training programs for principals and headteachers. These programs may have the goal of developing administrative styles that are more effective, which can contribute to improvements in educational outcomes.

References


