



RESEARCH PAPER

Development and Validation of Academic Moral Authority Scale for
Secondary School Heads (AcMAS-SSH)

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DOI	http://doi.org/10.47205/plhr.2022(6-II)46
PAPER INFO	ABSTRACT
Received: February 21, 2022	The current study focused on the development and validation of Academic Moral Authority Scale for Secondary School Heads (AcMAS-SSH) because standardized scale for this is less focused in academia. The AcMAS-SSH was developed under the umbrella of significant factors of moral authority i.e., Trust, Honesty, Patience, and Commitment, determined through focus group discussion. First draft of AcMAS-SSH consisted of 24 items on six points Likert scale was reviewed from nine experts for content validity. Seven items with weak Content Validity Ratio (CVR) were excluded from the first draft. Second draft consisted of 17 items was administered to 454 randomly selected teachers from secondary schools. Collected data were used to evaluate the internal factor structure of scale by employing Confirmatory Factor Analysis (CFA). Four items with regression weight less than .05 were excluded to ensure the construct validity of AcMAS-SSH. Total twelve items were retained in the final draft. Best model fit of the Final draft of AcMAS-SSH exhibited a valid scale. Finally, Cronbach Alpha reliability results were found (0.90) which ensured the AcMAS-SSH as reliable scale. Both Validity and Reliability results posited that it is a valid and reliable scale to evaluate the Academic Moral Authority of Secondary School Heads.
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Introduction

Leadership is a process of social influence in which a person can enlist, aid and support from others to accomplish everyday tasks (Chin & Roger, 2015). The concept of leadership is significant because it impacts people, organizations, communities, and societies (Gandolfi & Stone, 2018). This impact may vary according to the leadership style of the leader. Different leadership styles, like charismatic, innovative, command and control, laissez-faire, pacesetter, servant, situational, and transformational (Blanken, 2016) exist in the literature.

The concept of servant leadership was introduced by Greenleaf (2008). Narrating the significance of servant leadership, Spears (2010) stated that the great leader is seen as servant first and begins with the natural feeling that one wants to serve, to serve first. There are seven pillars of servant leadership; the person of character, puts people first, skilled communicator, compassionate collaborator, has foresight, systems thinker, leads with moral authority (Sipe & Frick, 2015). Leading with moral authority is the seventh pillar of servant leadership.

Moral authority is the attribute or trait of being respected for having good character or knowledge, particularly as a source of instruction or a model of correct behavior. Moreover, moral authority is also defined as the right or power to act or direct others to act, based on the belief that the actor is moral, rather than on the actor having or needing some formal authority to do so (Finer, 2017). To initiate and maintain the influence, a leader needs to have moral authority because, without moral authority, the desired influence is improbable (Stanley, 2012).

Moral authority is not singularly situated in the leader alone. Moral authority is a composite of the leader's vision and the followers' beliefs in that vision. However, the leader proposes a vision and a plan of action with specific outcomes that express a set of values with which the followers resonate. That resonance is both persuasive and inspirational, creating more than just conceptual alignment but an emotional sense of conviction that the leader's vision expresses the right way to go, the way that "should" be gone (Sniechowski, 2015). Moral authority not only builds upon the leader's values and beliefs, but it also comes out from the trust of the followers, from their internal moral commitment, which encourages them to exercise what they believe in and realize what they believe to be good and get them done (Lee, 2012).

Moral authority is rooted in leaders who adhere to a set of positive values in their deeds and words. Four values are foundational, and if they are not present other elements cannot compensate. These values are humility, respect, honesty, and the commitment and ability to do the hard right thing (Sharer, 2017). Moreover, Covey (2013) stated that leaders who have just formal authority alone will lose this trust and respect. Moreover, Moral authority requires sacrifice (Jovanovski, 2020). It comes from honesty, integrity, and treating people with love. Furthermore, Sipe and Frick (2015) stated that leading with Moral Authority makes one worthy of respect, inspires trust and confidence, and enables them to lead with high-performance standards.

No institution can function without a figure head. In an educational institute, the head teacher has the overall responsibility for the leadership and management of the school particularly in the domain of academics. The way that head teachers behave with teachers, the same behavior may be transferred to the students because the school leader is considered one of the most influential factors in developing the quality and character of a school (Cohen, McCabe, Michelli, & Pickeral, 2009). That's why heads' moral component of their academic leadership is significant and pivots for the school system. Keeping in view the stated significance of moral authority in academics and a less focused area in research, it needs to be evaluated in terms of its current level among school leaders as leadership is a significant element in developing and sustaining school climate (Bass & Riggio, 2005). Moral authority is a construct and its measurement is a difficult task. Literature lacks the measurement scales on moral authority, especially in the field of education. This study is an effort to develop and validate an instrument to evaluate secondary school head teachers' academic moral authority. Moreover, ensuring its reliability was also the purpose of the study.

Literature Review

Leadership has two meanings: it refers to a leading role in an organization and a leadership position in an organization. On the other hand, leadership refers to a specific style of performance: behaving like a leader. We can discover persons, not in a leadership role but have a leader profile and inspire others by their leadership in day-to-day events (Dvorakova,

Bright, & Muehlfeit, 2013). Most descriptions of leadership reveal the notion that it includes a process of social influence whereby other people exercise intended to influence over one person to arrange activities and develop relationships in an organization or group (Ali & Dahie, 2015).

Literature supports many types of leaderships *i.e.*, transformational, transactional, instructional, moral, ethical and servant leadership etc. The true leader can be seen as servant. It initiates with the usual feeling that one wishes to help, to serve first (Higham, Hopkins, & Matthews, 2009). There are seven basic pillars of the servant leadership and to lead the followers with moral authority is the seventh pillar of the servant leadership (Sipe & Frick, 2015).

Moral Authority

Like others, a school leader enjoys different types of authority that rests not only with the position or accomplishment but also on inner conviction. The given conviction, if it is altruistic and sincere, then the associated authority might make the leaders' persuasive and acceptable to others (Sergiovanni, 1992). It may be supportive to sustain the influence on the people whom the leader is leading in the organization. To initiate and maintain the influence, a leader needs to have moral authority because without moral authority the desired influence is improbable (Hammersley-Fletcher, et al., 2005).

Truong and Hallinger (2017) explained that the essence of moral authority often comes from following timeless and universal qualities of head teachers like integrity, honesty, commitment and treating people with love. Furthermore, Sipe and Frick (2015) stated that leading with moral authority makes individuals worthy of respect, inspires trust and self-confidence and enables them to lead with high standards of performance

In accordance with researcher's national context and to deeply explore the phenomenon researcher arranged a focus group discussion to determine the scope of moral authority from the theoretical underpinnings. The major scope was determined as SSH's trust on the teachers, honesty, patience, and commitment. Further procedure for inquiry can be easily understood with the help of figure 1.

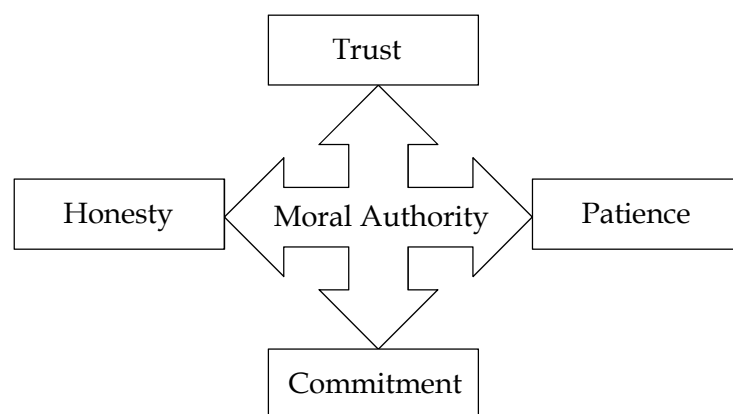


Figure 1
Factors of Moral Authority

Trust

Educational leadership cannot be set up and kept up without a solid obligation of trust existing between head of the institute and students (Mitchell & Lizotte, 2014). Troman (2000) contends that educating is an 'enthusiastic work on' including trustful associations with others. Trust is of prime significance in instructing, for the nearness of trust guarantees that 'creative people are permitted more prominent opportunity and self-sufficiency' (Katzenmeyer & Moller, 2009). Trust is required for strong parent-educator connections, which upgrade students' learning (Hoppner & Vadakkepatt, 2019). Schooling is a 'deeply emotional system of work, teaching and learning activates, and other involvements touches the action and feelings of others individuals with whom teachers and head teachers interact and develop relations (Delamont, 2017). Just like that head teachers delights the emotional lives of teachers not only as matters of personal outlook or promise, but as inner qualities that arise among individuals, also as a phenomena that are formed by how the effort of teaching can be organized, structured and lead out (Hargreaves & O'Connor, 2018).

Honesty

The honesty can be utilized to characterize and explain the desires related with the accommodation of real work (Eliophotou-Menon & Ioannou, 2016). It will provide staff, students, guardians, guides, and administrative with a distinctive understanding of misbehaviour, characterize and define the responsibilities of all stakeholders in order to avoid misbehaviour, and admire principled conduct in the learning environment of any institute (Grover, 2015). Academic honesty is recognizing as acknowledging the roles and efforts of others, responsibility to deliver authentic knowledge, acknowledgment of crafted by others, and keeping up respect and trust in the learning environment of schools (Hoppner & Vadakkepatt, 2019). So as to comprehend appropriate academic honesty practices, it is essential to explain the behaviour that can lead toward a favourable situation in academic work. Academic honesty likewise includes no cheating not lying, rather motivates teachers to justifies their professional responsibilities (Halstead & Taylor, 2005). Head teachers ought to organize exchanges of ideas or exercises to stress, about what an honest individual would state or do in a given circumstance, or to address dishonest practices (Dobelstein, 2018).

Patience

Learning requires some investment, as students need time to investigate and control the learning materials, make arrangements, recover earlier information, detail and test speculations, assess criticism and proof, change their critical thinking techniques, reconsider their feeling of comprehension, learn problem solving skills, update and monitoring their work demands academic patience from educational experts (Ali & Dahie, 2015). Since learning takes some time, learners needs and benefit from teachers who exhibited the patience in situations that allows students and other colleagues the period they need for the self-paced professional learning (Barth & Rieckmann, 2012). It is believed that a head teacher would cease to exist as a teacher if he stops updating his knowledge and skill sets to meet the emerging evolutions in things that are to be taught (Sandekian et al., 2015). A head teacher, therefore is a continuous learner, if having patience as a dominant skill in academic matters, and above all passion towards teaching to experience the sheer joy of his students learning and getting benefited in life (Stylianou & Zembylas, 2019).

Commitment

It is believed that committed head teacher always devotes their worthy time to contribute in education. Committed head teachers assumed as to continuing education (Hoppner & Vadakkepatt, 2019). Head teachers who are devoted to their profession and possess academic commitment learn constantly new methodologies and strategies to draw in and engage their students and co-workers. They understand that instructing is a lifelong that changes guidelines and guidelines consistently and are focused on staying aware of these regularly evolving techniques. They all required to guarantee that they know the most recent instructive developments and educating techniques (Armstrong, 2016).

Keeping in view the four identified significant factors of moral authority, researcher intended to evaluate SSHs' academic moral authority. For this purpose, a valid and reliable scale was needed. Moral authority is evaluated from the reported behavior of the SSHs but the intention here is to validate and make the AcMAS-SSHs reliable.

Research Methodology

This study is descriptive in nature; existing phenomenon was used for data collection procedure without any manipulation of treatment. Scope of moral authority was determined through focus group discussion. It was concluded that the four identified sub-constructs determine the scope of moral authority.

Instrumentation

On the basis of these sub-constructs, first draft of Academic Moral Authority Scale for Secondary School Heads (AcMAS-SSH) consisted of 24 items was constructed on six points Likert scale in national language 'Urdu' for the informants because it was easily understandable to them.

Content Validity of AcMAS-SSH

To ensure the content validity of first draft of the AcMAS-SSH, it was handed over to nine experts for the opinion. The validation procedure suggested by Lawshe (1975) was followed. The criterion for acceptance of the item in AcMAS-SSH was $CVR > .75$ with nine experts (Allahyari, Hassanzadeh, Khosravi, & Zayeri, 2011). Content Validity ratio of each item was computed and reported in table 1.

Table 1
Content Validity of Academic Moral Authority Scale

Sr. No.	Sub-factor	CVR	Decision	Sr. No.	Sub-factor	CVR	Decision
1	Trust	0.33	Rejected	13	Patience	0.56	Rejected
2	Trust	1	Accepted	14	Patience	0.56	Rejected
3	Trust	1	Accepted	15	Patience	1	Accepted
4	Trust	1	Accepted	16	Patience	1	Accepted
5	Trust	1	Accepted	17	Patience	1	Accepted
6	Trust	0.78	Accepted	18	Patience	1	Accepted
7	Trust	0.56	Rejected	19	Commitment	0.78	Accepted
8	Honesty	0.78	Accepted	20	Commitment	0.33	Rejected
9	Honesty	1	Accepted	21	Commitment	1	Accepted
10	Honesty	0.78	Accepted	22	Commitment	0.78	Accepted
11	Honesty	1	Accepted	23	Commitment	1	Accepted

12	Honesty	0.33	Rejected	24	Commitment	0.11	Rejected
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Seven items with weak CVR were excluded from the first draft. Moreover, necessary changes were made in the light of the opinion suggested by the experts. Some changes were about the refinement of the items, and the others were about the clarity of concept, language, and sentence structure. The number of accepted items retained in the second draft was 17. Content Validity Index (CVI) of the AcMAS-SSH was calculated as 0.93. Factor-wise detail of items in the first and second draft is presented in table 2.

Table 2
Factor wise Detail of Items in AcMAS-SSH

Sr. No.	Scope of Moral Authority	Items in 1 st Draft	Items retained in 2nd Draft
1	Trust	7	5
2	Honesty	5	4
3	Patience	6	4
4	Commitment	6	4
5	Total Items	24	17

After ensuring the content validity of ACMAS-SSH, construct validity was ensured through Confirmatory Factor Analysis (CFA).

Construct Validity of ACMAS-SSH

Construct validity of the instrument was ensured through CFA. Thompson (2004) reported that CFA is more valuable than EFA when theories about the construct under investigation existed. The researcher used CFA in the present study as the factors were already determined through focus group discussion. The second draft of AcMAS-SSH consisted of 17 items was administered to 454 teachers working in secondary schools following the research ethics. Mundfrom, Shaw, and Ke (2005) suggested a sample size between 100 and 1000 respondents for CFA.

To ensure the construct validity of the second draft of AcMAS-SSH, CFA was run using AMOS-24. Different researchers suggested different values of model fit to report while interpreting the results of CFA. McDonald and Ho (2002) suggested Comparative Fit Index (CFI), Goodness of Fit Index (GFI), and Normal Fit Index (NFI) for reporting the values of model fit. On the other hand, Kline (2015) focused on the Chi-squared test (CMIN/DF), Root Mean-Square Residual (RMR), Root Mean Square Error of Approximation (RMSEA), and Comparative Fit Index (CFI) to report. Furthermore, Basak, Ekmekci, Bayram, and Bas (2013) presented that major model fit indices are Root Mean-Square Residual (RMR), Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Normal Fit Index (NFI), and Comparative Fit Index (CFI). CMIN/df, RMR, GFI, AGFI, NFI, CFI, and RMSEA are used to validate the internal structure of AcMAS-SHH.

Values of model fit indices were calculated and found; CMIN/df as 3.02, acceptable according to the criteria given by Hair et al. (2019). Similarly value of RMR was found .06, GFI .91, AGFI .88, CFI .91, and RMSEA .06. All these values are acceptable for model fit, but the value of NFI was found .87, which was below the given criteria. Values of regression weights reported in table 3 were scrutinized.

Table 3
Standardized Regression Weights

Sr. No.	Factor of AcMAS-SHH	Statement Number	Estimate	Decision
1	Trust	T 1	.401	Excluded
2		T 2	.602	Retained
3		T 3	.544	Retained
4		T 4	.649	Retained
5		T 5	.357	Excluded
6	Honesty	H 1	.474	Excluded
7		H 2	.647	Retained
8		H 3	.645	Retained
9		H 4	.709	Retained
10	Patience	P 1	.685	Retained
11		P 2	.673	Retained
12		P 3	.648	Retained
13		P 4	.495	Excluded
14	Commitment	C 1	.581	Retained
15		C 2	.702	Retained
16		C 3	.698	Retained
17		C 4	-.073	Excluded

Henseler et al. (2009) suggested that standardized regression weights of the items between .40 and .70 may be acceptable. In the light of mentioned criterion, five items have standardized regression weight .50. So these five items (T1, T5, H1, P4, and C4) were excluded. To improve the values of model fit indices, CFA was again run with 12 items. The AMOS diagram of AcMAS-SHH is presented in figure 2.

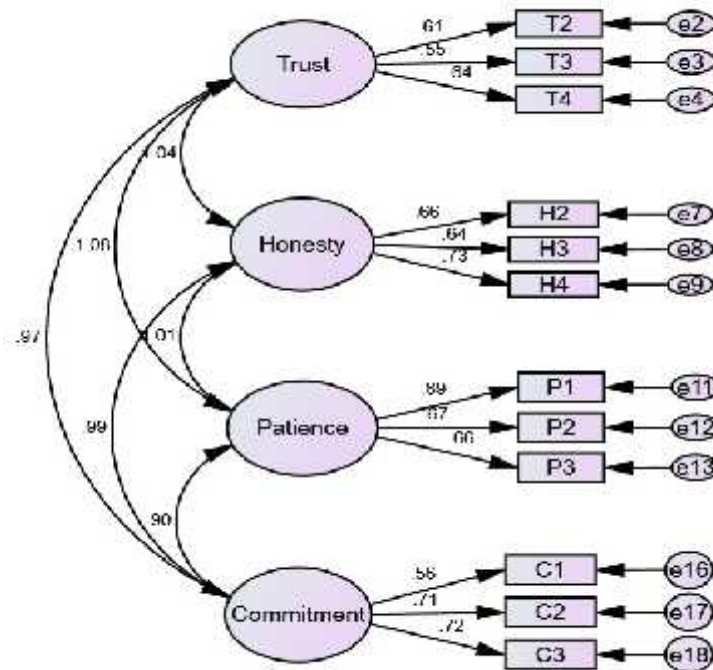


Figure 2

AMOS Diagram of First Order CFA on AcMAS-SHH

Moreover, model fit indices of the first order CFA of AcMAS-SHH are presented in table 4.

Table 4
Model Fit Indices of Academic Moral Authority Scale for Secondary School Heads

Sr. No	Fit Indices	Calculated Values	Criteria for acceptance	Judgment
1	CMIN/df	2.64	Less or equal to 3	Good
2	RMR	.04	.00 to less than .09	Good
3	GFI	.96	Above .95	Good
4	AGFI	.93	Above .90	Good
5	NFI	.94	.90 to .95	Acceptable
6	CFI	.96	Above .95	Good
7	RMSEA	.06	Less than 0.10	Good

Table 4 reveals that all the values of model fit indicators were good/ acceptable, ensuring the construct validity of AcMAS-SHH.

Second Order Confirmatory Factor Analysis (CFA)

Second order CFA was run to ensure that the items of each sub-factor and the factors collectively measure SSHs’ Academic Moral Authority. Moreover, it represents broader concepts at secondary and higher levels (Gatignon, 2014). Second-order confirmatory factor analysis was used to verify the factor structure. Findings of the second-order CFA revealed that the value of CMIN/DF, 3.16; RMR, .05; GFI, .81; AGFI, .80; NFI, .80; IFI, .86; TLI, .85; CFI, .86 and RMSEA are acceptable according to the criteria of acceptance suggested by Baumgatner and Homburg (1996). AMOS diagram of second-order factor analysis is displayed in figure 3.

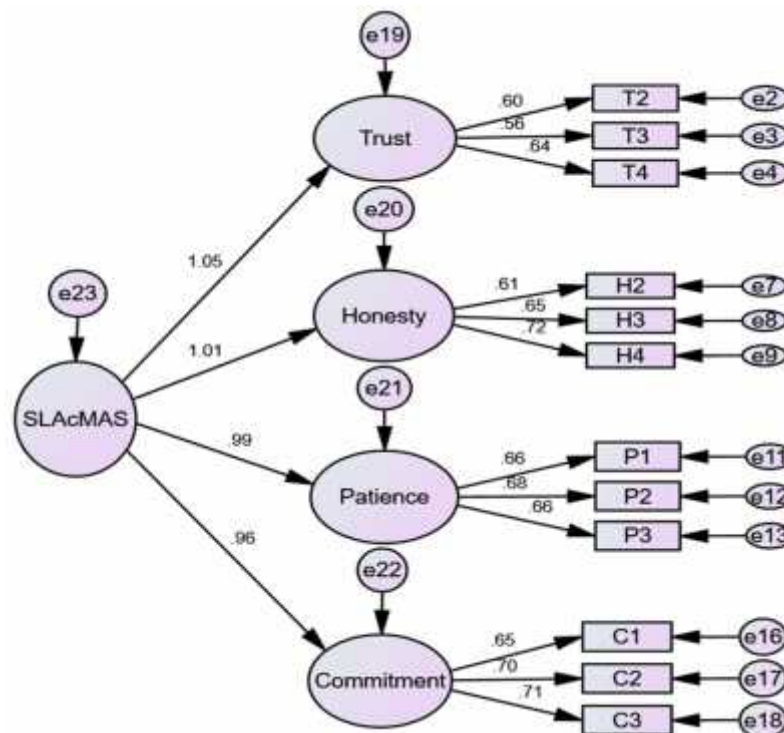


Figure 3
AMOS diagram of Second Order CFA on ACMAS-SSH

A final draft of AcMAS-SSH was consisted of 12 items with three items against each factor; trust, honesty, patience, and commitment. Kline (2015) recommended the criteria of a minimum of three indicators to measure a construct. Hence, it is claimed on the basis of above model fit indices that the AcMAS-SSH is valid to evaluate academic moral authority of secondary school heads.

Reliability of AcMAS-SSH

The reliability of the AcMAS-SSH was ensured through calculating Cronbach alpha and found reliable. Detail is presented in table 5.

Table 5
Reliability of Factors of AcMAS-SSH

Factors of AcMAS-SSH	No. of items	Mean	SD	Cronbach Alpha
Trust	3	4.96	0.81	0.63
Honesty	3	4.83	0.90	0.71
Patience	3	4.93	0.87	0.71
Commitment	3	4.91	0.84	0.69
Total Scale	12	4.91	0.75	0.90

Table 5 presents Cronbach alpha of the factors of the AcMAS-SSH. Cronbach alpha of first factor i.e., trust was found 0.63 while Cronbach alpha of second and third factor; honesty and patience was found 0.71. Moreover, Cronbach alpha of fourth factor i.e., commitment was calculated as 0.69. The overall reliability of AcMAS-SSH was calculated as 0.90. According to DeVellis and Thorpe (2021), the minimum accepted reliability value is $\geq .50$ for the sub-factors. All the values of Cronbach's alpha are above .50. Moreover, Karagoz (2019) suggested that the reliability value of the scale greater than .70 is considered acceptable. All four factors of AcMAS-SSH have the alpha value $> .70$, which ensures reliability of the scale.

Discussion

This study intended to develop a validated and reliable scale to measure the academic moral authority of secondary school heads. There are very few scales on moral authority, measuring morality of individuals in different contexts other than education. White (1996) developed revised moral authority scale with an intention to measure the influence level of a person's attributes in moral decision making. The scale showed high level of structural validity. Moreover, initially moral authority scale was developed by White (1996a, 1996b, 1997) based on five sources; family expectations, educators, self-interest, society welfare, and equality between individuals. These sources may have great influential impact on one's moral authority. Teymoori et al. (2011) validated a moral authority scale in Persian followed the moral authority scale developed by White (1996).

In educational context, especially to evaluate school heads' moral authority, the validated scale was missing. Hence, researcher developed a validated moral authority scale to evaluate secondary school heads' moral authority in academics. Content and construct validity of the scale was ensured through expert opinion and CFA. Moreover, reliability of the scale was ensured and found that scale is valid and reliable. All the psychometrics of the scale

was found acceptable according to the criteria given by different researchers (Allahyari, Hassanzadeh, Khosravi, & Zayeri, 2011; Hair et al., 2019; Karagoz, 2019).

Conclusions and Recommendations

It is concluded that AcMAS-SHH was found valid because its content validity was ensured through expert opinion following the procedure given by Lawshe (1975). Moreover, model fit indices of confirmatory factor analysis was ensured and found good as per above given criteria. Furthermore, reliability of AcMAS-SHH was also ensured and found good. So, on the basis of conclusions, it is recommended that AcMAS-SHH may be used for evaluating SSHs' academic moral authority. This scale may be piloted on different samples across the different geographical areas of globe to ensure its authenticity. This scale was developed focusing on four factors of moral authority; trust, honesty, patience and commitment. It may be extended on different factors other than used in this scale in educational context.

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