Adapting and Validating the Academic Self-Efficacy Scale for Advanced-Level Students in Sri Lanka

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Abstract

Academic self-efficacy (ASE) plays a vital role in shaping students' motivation, persistence, and academic success. Despite its theoretical importance and frequent use in international settings, there is a lack of a validated scale for measuring ASE among advanced-level students in the Sri Lankan context. This study introduces and validates the Academic Self-Efficacy Scale (SL-ASES-AL), tailored for advanced-level students in Sri Lanka. The scale was adapted from Dullas (2018) and comprises three dimensions: Perceived Control, Competence, and Persistence, with Self-regulated Learning excluded, as it is considered a distinct construct within the broader research framework. The validation process employed a three-phase approach, consisting of a two-round Delphi and a pilot study. In the first round, responses from 14 experts were analyzed, resulting in the exclusion of items that fell below the 80% consensus threshold. This process led to 16 items advancing to the second round. In the second round, eight experts evaluated these items for relevance and clarity. Using the Item-Level Content Validity Index (I-CVI) and Scale-Level Content Validity Index, all items attained the maximum I-CVI value of 1.00, indicating excellent content validity. Subsequently, a pilot study was conducted with 64 advanced-level students to assess reliability and construct validity. An overall Cronbach's alpha of .841 and dimension-specific alpha values above .70 confirmed high internal consistency. Item-total correlation values further supported construct validity, with eleven items demonstrating strong correlations (≥ .5), and five items rated as acceptable. One item, with a slightly lower correlation, was retained in a rephrased form based on expert judgment. These findings confirm that the adapted SL-ASES-AL scale is both valid and reliable for assessing ASE within the Sri Lankan context. It offers a contextually relevant tool to enhance educational assessment and student well-being.

***Keywords*:** Academic self-efficacy, scale adaptation, content validity, construct validity, Delphi method

Introduction

The concept of academic self-efficacy (ASE) refers to a learner's belief in their ability to learn or perform academic tasks to a certain standard (Schunk & DiBenedetto, 2021). ASE is central to Bandura's Social Cognitive Theory (SCT), which explains human behaviour as the result of interactions among personal, environmental, and behavioural factors (Bandura, 1997). In educational settings, self-efficacy plays a significant role in shaping students' motivation, learning behaviours, and performance outcomes. Despite its importance, ASE is often measured using instruments that present it as one part of a broader framework. For example, tools such as those developed by Pintrich and De Groot (1990), Jinks and Morgan (1999), Midgley et al. (2000), and Anderman et al. (2005) include self-efficacy as a subscale. These tools tend to assess only one specific source of self-efficacy, such as personal success experiences or social encouragement (Anderman et al., 2005; Chen & Usher, 2013; Jinks & Morgan, 1999, 1999; Midgley et al., 2000). This narrow focus is also evident in studies conducted within Asian contexts, where researchers like Kim et al. (2015) and Huang (2013) have primarily emphasized mastery experience when developing ASE scales. However, self-efficacy is a complex and multi-dimensional concept. Research has consistently demonstrated that ideas such as self-regulated learning (SRL), perceived control, persistence, and competence are closely linked to ASE (Bandura, 1997; Luszczynska &

Schwarzer, 2015; Salmerón-Pérez et al., 2010; Schnell et al., 2015; Schunk & Pajares, 2002; Zimmerman, 2008; Zimmerman & Schunk, 2012).

Perceived control, also known as an internal locus of control, reflects a person's belief that their actions determine outcomes. Individuals with a high sense of control believe in their ability to bring about change through effort and effective decision-making (Feist et al., 2013; Wood & Wood, 1996, as cited in Dullas, 2018). This belief is similar to the characteristics seen in individuals with strong self-efficacy (Bandura, 1997). Persistence, the ability to continue striving despite setbacks, is also a core element of self-efficacy. Students who persist in the face of difficulties often demonstrate higher levels of confidence and academic resilience (Pajares & Miller, 1994; Schnell et al., 2015; Schunk & Pajares, 2002). Likewise, students' beliefs about their academic skills and competence strongly influence their motivation and ability to succeed (Azar et al., 2010; Wigfield & Eccles, 2000).

In response to the need for a more comprehensive measure, Dullas (2018) developed a scale that included four key dimensions: perceived control, persistence, competence, and SRL. For this study, permission was obtained to adapt the scale to the Sri Lankan context. Because self-directed learning (SDL) is treated as an independent variable in the present study, the SRL dimension from the original scale was excluded to avoid conceptual overlap. Only the remaining three domains: perceived control, competence, and persistence, were retained. This adaptation aligns with recommendations from Bandura (2006) and Schunk and Pajares (2002), who emphasize the importance of considering the context when designing self-efficacy measurements. To date, there is no publicly available or validated ASE scale explicitly developed for Sri Lankan advanced-level students. This highlights a clear need for an adapted and context-sensitive tool that can accurately and meaningfully assess students' academic self-beliefs. Therefore, this study aims to adapt and validate a contextually relevant and psychometrically sound Academic Self-Efficacy Scale for use among Sri Lankan advanced-level students.

Aim

To develop and validate a contextually appropriate instrument for measuring ASE among advanced-level students in Sri Lanka by adapting the original scale developed by Dullas (2018).

Objectives

1. To adapt the original ASE Scale developed by Dullas (2018) to the Sri Lankan educational and cultural context.
2. To establish the content validity of the adapted scale through expert evaluation using the Delphi method.
3. To evaluate the reliability and construct validity of the adapted scale through a pilot study with advanced-level students.
4. To produce a validated context-specific ASE scale suitable for use in future educational research and practices in Sri Lanka.

Literature Review

Theoretical Foundations of ASE

SCT has provided a robust conceptual base across multiple domains, including education, psychology, health, and human behaviour. Bandura first introduced this theory in 1986 (as cited in Luszczynska & Schwarzer, 2015). The theory highlights how cognitive processes, in conjunction with behavioural and environmental influences, shape learning and action. At the heart of SCT lies the concept of perceived self-efficacy, which reflects an individual's belief in their ability to plan and execute actions necessary to achieve specific outcomes (Bandura, 1997). Bandura (1995)

described self-efficacy as individuals' beliefs about their ability to perform at certain levels in ways that influence events in their lives. These beliefs have a significant impact on how people feel, think, and behave (Bandura, 1993). Individuals with strong self-efficacy tend to approach complex tasks with confidence, maintain effort in the face of challenges, and treat setbacks as learning experiences. In contrast, low self-efficacy is often associated with avoidance, diminished effort, and increased vulnerability to stress (Bandura, 1997). These beliefs not only determine behaviour initiation but also affect effort, emotional regulation, and persistence (Bandura, 1977; Schunk, 1984).

Construct Definitions and Dimensions

To adapt a valid scale, it is important to understand how self-efficacy is defined and structured. Self-efficacy can be broadly defined as a person's belief in their capacity to perform tasks at a certain level (Bandura, 1997). It encompasses perceptions of one's effectiveness, adequacy, and capability to manage tasks, as described by Schultz and Schultz (1994) and Feist and Feist (2002), as cited in Paradewari (2017). These beliefs are known to affect individuals cognitively, emotionally, and behaviourally. ASE is commonly viewed as comprising three core dimensions: perceived control, or belief in one's ability to influence outcomes through effort and decision-making; competence, or belief in one's academic skills; and persistence, the capacity to sustain effort despite setbacks (Bandura, 1977; Karsten & Roth, 1998).

ASE in Educational Contexts

The role of ASE has been widely documented in educational research, particularly for its influence on students' performance, learning behaviour, and decision-making (Bandura, 1986). It plays a key role in shaping students' goal-setting behaviour, strategy use, motivation, and self-regulation in learning environments (Bandura, 1986). Findings from various studies confirm the close link between self-efficacy and student engagement, academic motivation, and achievement (Linnenbrink & Pintrich, 2002; Schunk, 1991). Students with strong efficacy beliefs are more likely to apply effective learning strategies and maintain sustained academic effort (Pajares & Schunk, 2001). This relationship between self-efficacy and academic performance is consistently supported across disciplines. For example, high levels of self-efficacy are associated with better performance in mathematics and science (Lent et al., 1984, 1993; Pajares & Miller, 1994). In the context of language learning, students who believe in their ability to succeed are more motivated, resilient, and willing to persist (Ghonsooly et al., 2012; Liu, 2013; Rahımı & Abedını, 2009). On the other hand, students with low confidence in their abilities often feel overwhelmed and perform poorly (Başaran & Cabaroğlu, 2014).

Correlation with Achievement

There is substantial empirical support for the relationship between ASE and academic success. Learners with high self-efficacy are more likely to apply self-regulatory behaviours, invest effort in their studies, and achieve better academic results (Caprara et al., 2003; Doordinejad & Afshar, 2014; Rahimpour & Nariman-Jahan, 2010). Conversely, low self-efficacy often correlates with anxiety, reliance on ineffective strategies, and poor academic outcomes (Hsieh & Schallert, 2008). This connection has been notably observed in foreign language learning. Students with higher self-efficacy are more confident and perform better in language tasks (Mills et al., 2006; Wang et al., 2013), while those with lower self-efficacy often disengage from tasks, fearing poor results or failure.

Contextual Gap in Sri Lanka and Justification for Scale Adaptation

Despite extensive global research on ASE, a critical gap exists in the Sri Lankan context: the absence of a culturally validated tool designed for advanced-level students. Most self-efficacy measures have been developed in Western or other Asian settings and may not fully align with the

socio-cultural realities, learning environments, and educational expectations of Sri Lankan students. As such, direct application of these tools without adaptation risks misinterpretation and limits their relevance.

To address this, the current study adapts the ASE Scale developed by Dullas (2018) for Filipino junior high school students. The original scale included four components: perceived control, competence, persistence, and SRL. In this study, SRL was excluded, as SDL is explored as an independent variable. This refinement aligns with Bandura's (2006) assertion that self-efficacy instruments should be contextually and domain-specific. Accordingly, the adapted scale focuses on three core dimensions: perceived control, competence, and persistence, all of which are well-supported by literature and highly relevant to the academic challenges faced by Sri Lankan advanced-level students. Developing a localized and validated scale is both practical and timely, ensuring more accurate assessments of students' beliefs and guiding effective educational strategies.

Methodology

To achieve this, the scale was modified based on the Academic Self-Efficacy Scale initially developed by Dullas (2018). To establish content validity, a two-round Delphi process was carried out. Subsequently, a pilot study was conducted to assess the construct validity and reliability, as well as to determine the suitability of the adapted scale within the Sri Lankan context. The following sections, Adaptation of the Scale, Participant Selection, and Data Presentation and Analysis, provide a detailed account of these procedures. The structure of Dullas's (2018) ASE scale for Filipino Junior High School students is shown in Table 1 below.

Table 1

Structure of Dullas's ASE Scale

Dimensions	Number of items
Perceived Control	12
Competence	15
Persistence	15
Self-regulated Learning (SRL)	20

Out of the initial 62 items, the 20 items related to self-regulated learning (SRL) were excluded during the early stages of questionnaire development, as this dimension was addressed separately within the questionnaire through a focus on self-directed learning (SDL). To avoid redundancy, the SRL-related items were removed, leaving 42 items for further adaptation. From these remaining 42 items, only 20 were selected for adaptation in the first round of the Delphi process, based on their relevance to the Sri Lankan educational context. For instance, items such as *"I am competent to pass Filipino subject," "I will be able to finish Junior high school because I am smart enough to do so,"* and *"I am persistent to pass Araling Panlipunan (Social Studies) subject"* were omitted. Additionally, items that referenced specific subjects like *"I am competent to pass the Science subject"* and *"I believe that I can pass the Math subject because I have the ability to do so"* were also excluded, considering the intended length of the scale and its applicability across all advanced-level streams in Sri Lanka. These 20 items were subsequently revised to reflect the local context, specifically the advanced-level context of Sri Lanka.

Selecting the experts to participate in the Delphi is an essential component, as the output of the Delphi is based on their opinions (Ashton, 1986; Bolger & Wright, 1994; Parente et al., 1984). The experts for the Delphi were selected through judgmental sampling technique, as the

requirements, Knowledge and experience with the problem that has been taken for the investigation, Willingness, and capacity to take part, enough time to participate, and possessing the communication skills must be satisfied in the selection of experts for the Delphi (Adler & Ziglio (1996, as cited in Skulmoski et al., 2007). On this basis, 26 selected experts were invited for the first round of the Delphi process, and nine experts were invited for the second round of the Delphi process. The minimal reasonable sample size for the pilot study must be a minimum of 30 (Bujang et al., 2024; Johanson & Brooks, 2010). According to Hertzog (2008), the minimal sample size for a pilot study in social science research must be 10 to 40 per group. On this basis, 64 students were selected purposively for the pilot study. Gender representation was also taken into consideration during the sample selection.

Data Presentation and Analysis

Delphi Round One

The scale for round one of the Delphi process encompassed 20 items, including seven items in the perceived control dimension, eight items in the competence dimension, and five items in the persistence dimension. Among the 26 experts invited, only 16 responded. As one response was incomplete, 15 valid responses were used to determine consensus. According to Phillips et al. (2014), it was determined that items with consensus agreement below 80% should be excluded. The item number and the consensus rate in the first round of the Delphi are shown in Table 2 below.

Table 2

Consensus Rate in the First Round of the Delphi

Dimensions	Perceived Control	Item No	1.1	1.2	1.3	1.4	1.5	1.6	1.7	
		Consensus Rate	100.00	85.71	100.00	100.00	100.00	100.00	64.29	
	Competence	Item No	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8
		Consensus Rate	92.86	92.86	100.00	92.86	92.86	100.00	92.86	71.43
	Persistence	Item No	3.1	3.2	3.3	3.4	3.5			
		Consensus Rate	85.71	92.86	100.00	100.00	100.00			

Based on the consensus rate, items that fell below 80% of the rate, such as item 1.7, *'I hope that I will enrol at a state university'*, were excluded. Additionally, item 2.8, *'I can pass the subjects General English and General Aptitude'*, was split into two separate questions*: 'I can pass the subject, General English',* and *'I can pass the subject, General Aptitude'*, following the experts' comments. In addition to the above, despite the remaining 18 items reaching the consensus threshold, four items were excluded based on the qualitative comments provided by the experts, considering the length of the questionnaire and the extent to which they conveyed the same meaning. Accordingly, item 1.2 in the perceived control dimension and items 2.1, 2.2, and 2.6 in the competence dimension were excluded. The remaining items in the competence dimension stayed the same. Therefore, the final 16 items- five under the perceived control dimension, six under the competence dimension, and five under the persistence dimension- were considered for the second round of the Delphi. The structure of the scale for the second round of the Delphi is depicted in Table 3 below.

Table 3

Structure of the Scale, SL-ASES-AL for the Second Round of Delphi

Dimensions											Total Number of Items
	Perceived Control	Item No in round 1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	7	
		Item No in round 2	1.1	E	1.2	1.3	1.4	1.5	E	5	
	Competence	Item No in round 1	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	8
		Item No in round 2	E	E	2.1	2.2	2.3	E	2.4	2.5 &2.6	6
	Persistence	Item No in round 1	3.1	3.2	3.3	3.4	3.5			5	
		Item No in round 2	3.1	3.2	3.3	3.4	3.5			5	

Note: The E denotes 'Excluded'.

Delphi Round Two

The scale for the second round of the Delphi process included 16 items, as previously mentioned. The structure of the SL-ASES-AL for the second round of the Delphi is illustrated in Table 4 below.

Table 4

Revised SL-ASES-AL Structure for Delphi Round Two

Dimension	Number of Items	Item Number
Perceived Control	5	1.1,1.2,1.3,1.4,1.5
Competence	6	2.1,2.2,2.3,2.4,2.5,2.6
Persistence	5	3.1,3.2,3.3,3.4,3.5

Nine experts, selected purposively, were invited to participate in the second round of the Delphi. They were asked to complete the questionnaire on two aspects: Relevance and Clarity. Four options were provided for each aspect. For the relevance aspect, they were instructed to choose one if the item is not relevant to the measured dimension of ASE, two if it is somewhat relevant, three if it is quite relevant, and four if it is highly relevant to the measured dimension of ASE. Similarly, regarding relevance, they were asked to mark one if the item is unclear, two if it requires some revision, three if it is clear but needs some revision, and four if the item is very clear. Among the nine experts invited, only eight responded. Therefore, based on the responses received from these eight experts, a content validity analysis was conducted based on I-CVI and S-CVI, as described by McCoach et al. (2013), to ensure and improve the content validity of the scale. The calculated I-CVI results based on the relevant aspects and clarity are shown in Table 5 below.

Table 5

Expert Ratings of Content Validity: I-CVI and S-CVI Scores

Dimension	Item No	Relevant (Rating 3 or 4)	Irrelevant (Rating 1 or 2)	I-CVI	UA	Clarity (Rating 3 or 4)	Clarity (Rating 1 or 2)	I-CVI		Interpretation
Perceived Control	1.1	8	0	1.00	1	8	0	1.00	1	Appropriate
	1.2	8	0	1.00	1	8	0	1.00	1	Appropriate
	1.3	8	0	1.00	1	8	0	1.00	1	Appropriate
	1.4	8	0	1.00	1	8	0	1.00	1	Appropriate
	1.5	8	0	1.00	1	8	0	1.00	1	Appropriate
Competence	2.1	8	0	1.00	1	8	0	1.00	1	Appropriate
	2.2	8	0	1.00	1	8	0	1.00	1	Appropriate
	2.3	8	0	1.00	1	8	0	1.00	1	Appropriate
	2.4	8	0	1.00	1	8	0	1.00	1	Appropriate
	2.5	8	0	1.00	1	8	0	1.00	1	Appropriate
	2.6	8	0	1.00	1	8	0	1.00	1	Appropriate
Persistence	3.1	8	0	1.00	1	8	0	1.00	1	Appropriate
	3.2	8	0	1.00	1	8	0	1.00	1	Appropriate
	3.3	8	0	1.00	1	8	0	1.00	1	Appropriate
	3.4	8	0	1.00	1	8	0	1.00	1	Appropriate
	3.5	8	0	1.00	1	8	0	1.00	1	Appropriate
S-CVI/Average (Based on I-CVI)				1.00				1.00		
S-CVI/Average (Based on PR)				1.00				1.00		
S-CVI/Average (Based on UA)					1.00				1.00	

Note: I-CVI denotes the item-level content validity index, S-CVI denotes the scale-level content validity index, S-CVI/Average (Based on PR) indicates the scale-level content validity index calculated using the proportion relevance method, and S-CVI/Average (Based on UA) refers to the scale-level content validity index based on the universal agreement method, as proposed by Davis (1992), Lynn (1986), Polit et al. (2007), and Polit & Beck (2006). According to Zamanzadeh et al. (2015), items with I-CVI below .7 (I-CVI < .70) should be removed, while items with I-CVI between .70 and .90 (.70 ≤ I-CVI ≤ .90) should be revised, and items with I-CVI above .90 (I-CVI > .90) should be retained. In contrast, Raharjanti et al. (2022) stated that I-CVI > .79 means that the item is relevant and does not need further revision, and S-CVI/Ave ≥ .9 indicates that the items have excellent content validity. Based on this, all 16 items reach the maximum I-CVI value of 1.00, indicating that each item of this scale has excellent content validity (Raharjanti et al., 2022) and can be retained without revision (Zamanzadeh et al., 2015). Similarly, the S-CVI, the CVI for the scale, based on I-CVI, Proportion Relevance (PR), and Universal Agreement (UA), also reaches its maximum of 1.00. Here, all 16 items attain a maximum I-CVI value of 1.00 for relevance and clarity. Therefore, all 16 items were retained and included in the pilot study.

Pilot Study

The responses of the 64 students were analysed to ensure the reliability and construct validity of the scale and to verify its appropriateness in the local context. The results of the pilot study are shown in Table 6 below.

Table 6

Pilot Study Results: Reliability and Construct Validity

Dimension	Item No	Corrected Item-total correlation	Cronbach's Alpha	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
Perceived Control	1.1	.575	.798	.761	.841
	1.2	.579		.760	
	1.3	.684		.729	
	1.4	.500		.783	
	1.5	.586		.763	
Competence	2.1	.403	.728	.712	
	2.2	.527		.672	
	2.3	.506		.678	
	2.4	.452		.694	
	2.5	.383		.715	
	2.6	.570		.672	
Persistence	3.1	.296	.701	.719	
	3.2	.505		.632	
	3.3	.531		.623	
	3.4	.551		.609	
	3.5	.445		.663	

The reliability coefficient, Cronbach's alpha, is a widely accepted measurement that calculates the internal consistency of a scale (Raharjanti et al., 2022). According to Straub et al. (2004) and Hinton et al. (2004), as cited in Taherdoost (2016), a reliability coefficient of 0.60 or higher is considered acceptable for pilot studies. According to Hinton et al. (2004, as cited in Taherdoost, 2016), reliability levels can be categorised into four groups: excellent (≥ 0.90), high (0.70–0.90), moderate (0.50–0.70), and low (≤ 0.50). Additionally, as cited in Said (2018), Wim et al. (2008) proposed that an alpha value in the range of 0.60 to 0.80 is acceptable. Here, as all three dimensions have the Cronbach's alpha value greater than .70, it was concluded that the reliability level of each dimension is high. Furthermore, achieving a Cronbach's alpha value of .841 for the overall scale indicates that the reliability of this scale is also high.

The item-total correlation method and the inter-item correlation method can be used to assess the construct validity of a scale. For this study, only the item-total method was employed to establish the construct validity. The corrected item-total correlation value indicates the correlation between a specific item and the total scores of all other items on the scale. Robinson (2010) recommends that when the item-total correlation exceeds 0.50, the construct validity is established. Additionally, a score above 0.5 indicates a strong, positive correlation, while a score between 0.3 and 0.5 is considered acceptable (Raharjanti et al., 2022). In this study, eleven out of sixteen items had a corrected item-total correlation of 0.5 or higher, whereas four items (Items 2.1, 2.4, 2.5, and 3.5) had correlations between 0.3 and 0.5, specifically 0.403, 0.452, 0.383, and 0.445, respectively. The item with an item total correlation of 0.296 was rephrased for clarity. The expert panel agreed to keep the item, as it was deemed a vital aspect of ASE.

Results of the Delphi and Pilot Studies

Delphi Round One

Out of the 26 experts invited, 15 responded, and 14 complete responses were utilised for analysis. Based on the predetermined 80% consensus threshold, items with agreement below this threshold, such as Item 1.7: "I hope that I will enrol at a state university", were excluded. Item 2.8, which initially combined passing both General English and General Aptitude into a single item, was revised into two separate items based on expert feedback. Four additional items were removed based on qualitative expert feedback, primarily to eliminate redundancy and reduce scale length. This led to the development of a refined 16-item scale, distributed across three dimensions: Perceived Control (5 items), Competence (6 items), and Persistence (5 items).

Delphi Round Two

In the second round, eight of the nine invited experts responded. As outlined in the methodology, they assessed each item for relevance and clarity using a four-point rating scale. Based on their feedback, both the I-CVI and the S-CVI were calculated. All 16 items achieved an I-CVI of 1.00, and the S-CVI, calculated using both I-CVI, PR, and UA, also reached 1.00, indicating excellent content validity.

Pilot Study

The pilot study, conducted with 64 advanced-level students, aimed to assess the scale's reliability and construct validity, as outlined in the methodology. The overall Cronbach's alpha was .841, indicating strong internal consistency. Subscale reliability scores for the dimensions of Perceived Control, Competence, and Persistence each exceeded .70. Item-total correlation analysis supported construct validity, with 15 items showing strong and acceptable correlations. One item with a slightly lower correlation (.296) was retained due to its conceptual significance as endorsed by experts.

Discussion

This study aimed to adapt and validate the SL-ASES-AL scale, specifically designed for the unique needs of advanced-level students in Sri Lanka. The three-phase validation process, including Delphi rounds and pilot testing, confirmed the scale's strong content validity, internal consistency, and construct validity. High reliability coefficients and item-total correlations across all dimensions demonstrate that each item meaningfully contributes to assessing ASE in this demographic. The Delphi process enabled refinement of the scale through expert consensus, ensuring alignment with both theoretical frameworks and cultural relevance. Importantly, the decision to exclude the SRL domain from the original Dullas (2018) scale was justified by the need to prevent conceptual overlap with SDL, a distinct construct in this broader study. Notably, this study addresses a significant gap: the lack of a validated ASE scale for Sri Lankan students, particularly at the critical advanced level. Given the increasing academic pressures faced by students in this context, a culturally adapted and psychometrically robust scale is essential for both educational research and practical interventions. Limitations include the relatively small pilot sample and the exclusion of students from non-government schools, which may affect the generalizability of the findings. Future research should explore large-scale validation, longitudinal use, and correlations with actual academic outcomes. Furthermore, future research could employ a larger and more diverse sample representing different provinces and ethnic groups of students to enhance generalizability. It is also recommended that confirmatory factor analysis (CFA) be conducted using a sample of at least 300 participants to verify the factor structure identified in this study. Such large-scale validation would provide stronger evidence for the robustness and applicability of the SL-ASES-AL scale across varied educational settings in Sri Lanka.

Conclusion

ASE plays a vital role in influencing students' motivation, persistence, learning strategies, and ultimately, their academic achievement. Although international research has extensively examined the construct and its dimensions, there has been a lack of contextually relevant tools to measure ASE among Sri Lankan advanced-level students. This study addressed that gap by adapting the ASE Scale, initially developed by Dullas (2018), focusing on three dimensions: perceived control, competence, and persistence. The exclusion of the SRL dimension was a deliberate methodological choice, considering that SDL is regarded as a separate construct within the broader research framework. The adapted scale was validated by experts and refined through two rounds of the Delphi method and a pilot study, ensuring its content validity and contextual relevance. Consequently, this scale offers a reliable and valid tool for assessing ASE in the advanced-level educational environment of Sri Lanka. Its application can provide educators, researchers, and policymakers with more accurate insights into students' academic confidence and behavioural tendencies, enabling more targeted interventions and support strategies. Future studies may focus on the large-scale validation of the instrument across various regions and educational streams in Sri Lanka, examining how ASE interacts with other psychological and contextual factors, such as motivation, the learning environment, and educational outcomes.

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