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Deans' Message

It is my great pleasure to welcome readers to the inaugural issue of the *Journal of Educational Psychology and Assessment (JEPA)*, published by the Department of Educational Psychology, Faculty of Education, University of Colombo.

The establishment of JEPA marks an important milestone in our continuing commitment to promoting research, academic excellence, and scholarly dialogue in the fields of educational psychology and assessment. The journal provides a valuable platform for academics, researchers, practitioners, and postgraduate scholars to share evidence-based knowledge, innovative perspectives, and research findings that contribute to the advancement of education and human development.

Educational psychology and assessment play a vital role in understanding learners, teachers, learning processes, educational environments, and the diverse factors that influence educational outcomes. Through the publication of rigorous and relevant research, JEPA seeks to strengthen the connection between theory, research, policy, and educational practice.

I sincerely appreciate the dedication of the Editor-in-Chief, Editorial Board, reviewers, authors, and all those who have contributed to bringing this inaugural issue to publication. Their collective efforts demonstrate the Faculty's strong commitment to fostering a vibrant culture of research and knowledge sharing.

I wish JEPA continued growth and international recognition and warmly invite scholars and practitioners to contribute to its future issues.

Professor Samudra Senerath

Dean,
Faculty of Education,
University of Colombo,
June 2026.

Editorial Message

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It is with great pleasure that we present the inaugural issue of the *Journal of Educational Psychology and Assessment* (JEPA), ISSN 3121-5106 (Online), the official peer-reviewed journal of the Department of Educational Psychology, Faculty of Education, University of Colombo. Established following the departmental meeting held on 4 November 2025, JEPA represents an important milestone in strengthening research, scholarly dialogue, and knowledge dissemination within the faculty and beyond.

JEPA is an open-access, international journal committed to publishing high-quality original research, conceptual papers, and review studies in educational psychology and related disciplines. The journal covers a broad range of areas, including educational measurement and assessment, special and inclusive education, guidance and counselling, child development, early childhood education, learning and developmental theories, motivation and achievement, and mental health and well-being in educational settings. We welcome quantitative, qualitative, and mixed-methods research that contributes meaningful theoretical, methodological, and practical insights.

Academic quality and integrity are central to the mission of JEPA. All manuscripts undergo a rigorous double-blind peer-review process and are expected to comply with the *Publication Manual of the American Psychological Association* (7th Edition). We sincerely appreciate the valuable contributions of our national and international reviewers and acknowledge the dedication of our Editorial Board members in maintaining the academic standards and scholarly integrity of the journal.

JEPA welcomes submissions throughout the year in English, Sinhala, and Tamil. We invite academics, researchers, practitioners, and postgraduate scholars to contribute innovative and evidence-based research that connects theory with practice and advances understanding of learning, development, assessment, and educational well-being.

We aspire for JEPA to become a respected platform for educational psychology scholarship in Sri Lanka, South Asia, and the wider international community. This inaugural issue marks the beginning of an exciting scholarly journey and reflects our commitment to research excellence and educational advancement.

We warmly invite you to read, cite, engage, critique, and contribute to JEPA.

Dr. N. M. M. Safeek

Editor-in-Chief,

Journal of Educational Psychology and Assessment,

Department of Educational Psychology, Faculty of Education, University of Colombo

June 2026.

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Self-Regulated Learning Design for Professional Teacher Development: Delivery of Measurement & Assessment Course in Blended Mode

Danushka, S.A.N.¹ and Bandara. L.M.K.²

¹ Department of Educational Psychology, Faculty of Education, University of Colombo, Sri Lanka

² Department of Humanity Education, Faculty of Education, University of Colombo, Sri Lanka

* Corresponding Author Email: nalin@edpsy.cmb.ac.lk

ABSTRACT

Learner-centeredness has been prioritized in the teaching-learning process, although the learner belongs to different psychological and cognitive departments. The constant digital transformation has made drastic changes in educational contexts related to course design, delivery and instruction, assisting systematic management of the diversified needs of learners in different departments. Potentially, blended learning plays a critical role in designing and implementing educational programmes while providing an effective and learner-centred approach for course delivery, resulting in learner satisfaction with learning outcomes. The study planned to investigate the extent of productivity of SRL, supported by the COPES model, in the accumulation of teacher professional knowledge in a blended teacher professional course. The sample was selected purposively from a university B.Ed. course, which accommodated in-service (N=28) and pre-service (N=35) teachers. The social constructivist theoretical underpinning was employed, and a quantitative dominant, quasi-experimental pre- and post-test design was adapted. Paired-sample t-test results indicated that the means of both groups are highly significant at $p < .001$. One-way ANOVA test indicated that there is no statistically significant association between the means at $p < .05$ in response to the independent variables, such as Age, Gender, Educational qualifications, and Residential area. Independent sample t-test results indicated that assessment knowledge improvement is partially significant at $p < .05$ in both groups. The efficacy of the COPES model was estimated via Multiple Linear Regression (MLR) analysis for both in-service and pre-service teachers. Results indicated that, respectively, 41% and 30% of the variance of the post-test results of in-service and pre-service teachers is accounted for by the psychometric properties of the model.

Keywords: *blended learning, copes model, educational measurements and assessment, self-regulated learning-srl, teacher professional development*

INTRODUCTION

Self-Regulated Learning (SRL) is an instructional strategy that has been mainly used in classroom learning for many years, and its effectiveness in learning has also been commended in different scenarios. In recent years, it has been employed in online and blended formats to deliver programmes, and its consequences have been reported in many research studies, while its scope and capabilities have been redefined and heightened (Broadbent & Fuller-Tyszkiewicz, 2018; Virtanen, Nevgi & Niemi, 2015). It is further understood that SRL enriches

the relationship between psychological engagement and learning achievements in blended learning contexts, particularly through two SRL skills, such as task strategies and self-evaluation (Li, Chen, & Liu, 2024; Zhao et al, 2025). Self-regulated learning (SRL) refers to guiding one's own learning through metacognitive reflection on the learning process and consciously selecting effective strategies to enhance that learning (Zimmerman, 2000; Zimmerman, 1998; Bandura, 1991). The COPES model is one of the models used to implement SRL effectively postulated by Winne and Hadwin (1998, p.279-285).

Blended Learning (BL) is a combination of face-to-face and online instruction that ensures greater flexibility in students' learning and congruity of course delivery (Danushka & Weerasinghe, 2020, p. 765). BL is the common prevalence in education since it combines physical and online learning opportunities, ensuring greater flexibility in student learning while providing a cost-effective platform for institutions, so that BL has been a productive choice to reach the maximum level of satisfaction for both ends. The blended classroom model, one of the popular models among other models, is used in many professional teacher development programmes as it creates an environment for students to learn the theory online and practice the content physically with the presence of an instructor or a mentor. It is observed that the demand for teacher training is increasing due to certain government rules imposed on the teaching profession recently, particularly in-service teachers tend to apply for teacher training programmes. In-service teachers are entitled for study leave for further training needs, but many of them are hesitant to apply for study leave because leave requests are discarded due to teacher scarcity. Optionally, in-service teachers apply for blended courses, as many teacher training faculties and private institutions are now running blended programmes in response to the ongoing learner requirements. So, it would be noteworthy of inquiring into the context to see how teacher training programmes could be effective in response to the use of SRL in a blended classroom setting, since it is believed that SRL could be successful in teacher training contexts. Therefore, the present study is based on the research question of *how effective SRL is at blended teacher development programme*. Aligning with the research question, two research objectives are set for the study: 1) To design SRL for Blended Learning of professional teacher development, and 2) To decide the effectiveness of SRL in blended teacher development programmes. The study aims to answer the objectives through a quasi-experimental design with a purposively selected sample from undergraduates who follow a blended B.Ed. degree course in a local university. Written consent was taken from the respondents to participate in the study, and the relevant university authorities were informed in writing and approval was taken to conduct the study in the University. All the stakeholders were appropriately informed of the consequences and the benefits of the study before it was implemented.

LITERATURE REVIEW

Empirical studies show that SDL (Self-Directed Learning) and SRL are often used synonymously despite their different meanings (Saks & Leijen, 2014). Even though the concepts of self-directedness and self-regulation are not the same, they both shed light on different facets of the learning process. SDL originated from the works of Knowles and was heavily influenced by his literature. The literature of Hiemstra (1994) and Merriam (2001) also contributed to the development of SDL. The distinction between SDL and SRL is clearly explained in the literature of Saks and Leijen (2014), which is of vital importance. According to their literature, SDL is of wider scope and can be used in areas outside the classroom setting, whereas SRL is specific and is only used in the school setting in the context of completing specific tasks. SDL is focused on the process, whereas SRL is focused on the execution of tasks. The supervision of SRL is done by the teacher, whereas SDL is focused on the independent nature of the learners. The concept of SDL is based on andragogy, which is different from the concept of SRL based on cognitive psychology (Saks & Leijen, 2014). "Self-Regulated Learning (SRL) refers to the strategies that students use to regulate their own thoughts and organise their own learning resources (Pintrich, 1999, p. 459).

SRL describes the learning techniques employed to manage learning resources and facilitate cognitive development. Saks and Leijen (2014) explain that SRL represents a dimension of SDL. The current study focuses on the preference for SRL within a blended learning approach, which eliminates the need to further elaborate on terminology and concepts. Additional information concerning concepts and terminology may be found within the work of Pintrich, Zimmerman, and Azevedo (Pintrich, 1999; Zimmerman, 2002; Azevedo, 2009). At the moment, three propositions are associated with a motivational belief that promotes and enhances SRL. Blended learning environments may assist in promoting these propositions, as suggested by Pintrich (1999). Self-efficacy represents a motivational factor that promotes self-awareness and beliefs about one's ability to learn and acquire the necessary skills, promoting the use of self-regulated learning techniques. Task-value beliefs describe the perceived engaging, meaningful, and applicable nature of the learning activity. The adoption of a mastery orientation represents the selection of techniques that consistently enhance learning and understanding.

SELF-REGULATED LEARNING IN ONLINE AND BLENDED CONTEXTS

Research on the implementation of self-regulated learning (SRL) in online and blended contexts is adequately represented in the literature. Ting and Chao (2013) and Samruayruen et al. (2013) refer to Artino and Ioannou (2008), who considered SRL to be an effective and appropriate strategy for online education. In addition, these results and recommendations are consistent with the SRL adaptive profile of motivational beliefs, as proposed by Pintrich (1999). Other studies that support these results are also available (Vovides et al., 2007; Wang, 2011; Barnard-Brak et al., 2010). Barnard-Brak et al. (2010) found that SRL leads to better student performance, as far as students in online contexts are concerned, and suggest that these results are further explored in different contexts of education, varying in terms of student self-regulatory characteristics. This study is based on these results. McLoughlin and Lee (2010) concluded that SRL is advantageous in online contexts, although they highlight that these contexts need to be personalised, flexible, and adaptive in order to improve SRL.

Self-Regulated Learning (SRL) helps students manage their time, communicate with instructors, and access course content, and flexibility is a key feature of SRL (Bergamin et al., 2012). Carneiro and de Cima (2005) suggest that SRL can support learning in online contexts for employees, as long as the learning environment adequately exploits their strengths and overcomes their weaknesses. The technology knowledge of students is considered to be of critical importance in SRL in online contexts of education. Effective construction of knowledge requires cognitive and metacognitive activities, as well as student engagement with technology in SRL.

According to research, management practices, demographics, and cultural diversity act as barriers to student achievement in self-regulated learning in an online environment. Students who possess higher language acquisition skills tend to show higher self-regulated learning compared to those who possess lower language acquisition skills. No significant differences exist in self-regulation based on gender when implementing blended learning. The study conducted by Broadbent (2017) shows that online and blended learning promote the development of self-regulated learning skills. Social media sites play an essential role in the development of effective self-regulated learning strategies. In general, the digital divide between different generations is considered to be a barrier to self-directed learning in an online environment. The literature shows that technological knowledge is positively related to self-regulated learning (SRL).

According to Clark (2012), formative assessment helps students develop metacognitive skills and boost self-efficacy, which are essential in determining student success in self-regulated learning (SRL), as Bandura (1993) emphasised. Shea & Bidjerano (2010) found that learning presence in an online learning environment is influenced by self-efficacy and

cognitive, behavioural, and motivational skills. Similarly, Wang & Lin (2007) found that personal, behavioural, and environmental characteristics significantly influence SRL in an online learning environment. SRL is considered an effective learning strategy for online and blended learning environments as it allows learners to be independent and motivated and caters to various learning styles using cognitive and metacognitive learning strategies. However, some limitations exist and indicate that there is a need to conduct further research on making effective SRL possible in blended learning. Recent research shows that SRL meets the demands and requirements of blended learners in today's society.

SELF- REGULATED LEARNING MODELS

Depending upon different theories, different Self-Regulated Learning models have been designed. Scholars interpret self-regulated learning as a precise theory that adopts the highest level of importance in elucidating the process of self-regulated learning. For instance, the constructivist theory focuses on activities that evoke mental operations, create and change external cognitive structures based on the experience with which students come into the classroom (Jakesova & Kalenda, 2015, p.179). Table 2.1 summarises available self-regulated learning models.

Table 1

Characteristics of SRL Models

Models	Description	Perspectives		
		Personal Attributes	Process	Context
General Model of self-regulated learning (Pintrich, 2000)	Self-regulation comprises four phases: planning and goal setting, controlling, and reflecting	Regulation of cognition, motivation, behaviour, context and self-efficacy, performance goal-oriented learners	Student's ability to be cognitively, motivationally, and meta-cognitively active in learning	The environment where learning takes place.
Boekaerts (2002)	Diversity of self-regulation and self-control	Students invest time and effort to study hard. Regulate attention, motivation, will and attention	Motivation control, metacognitive control, action control and emotion control	A system concept that integrates activities in different control systems
Cyclical Analyses of SRL for the online environment (Zimmerman 2008)	Three-phase model: forethought, performance and self-reflection	Students' motivational beliefs, perception of their competence, orientation and interest, manage learning, imagination and attention	Cyclical process - Based on the Social cognitive theory of Albert Bandura. This model looks at SRL as the interaction of an individual's personality.	In an environment where individual perseverance is entrusted.
COPEs Model of Study Tasks (Winne and Hadwin, 1998)	Four-phase model: task definition, goal setting and planning, Enactment, Adaptation	Learner motivation	Students pass through the conditions of the different phases, operations, results (products), goals (standards) and evaluations.	Contextual
Process Oriented Model (Borkowski, 1996)	Winne's theory (1995) of Self-Regulation as a metacognitive process driven towards the development of	Student motivation and frequency of use of self-regulatory strategies	Focuses on effective teaching	Contextual

FOUR-PHASED MODEL OF MOTIVATED SELF-REGULATED LEARNING – COPEs MODEL (Winne & Hadwin, 1998, P.279-285)

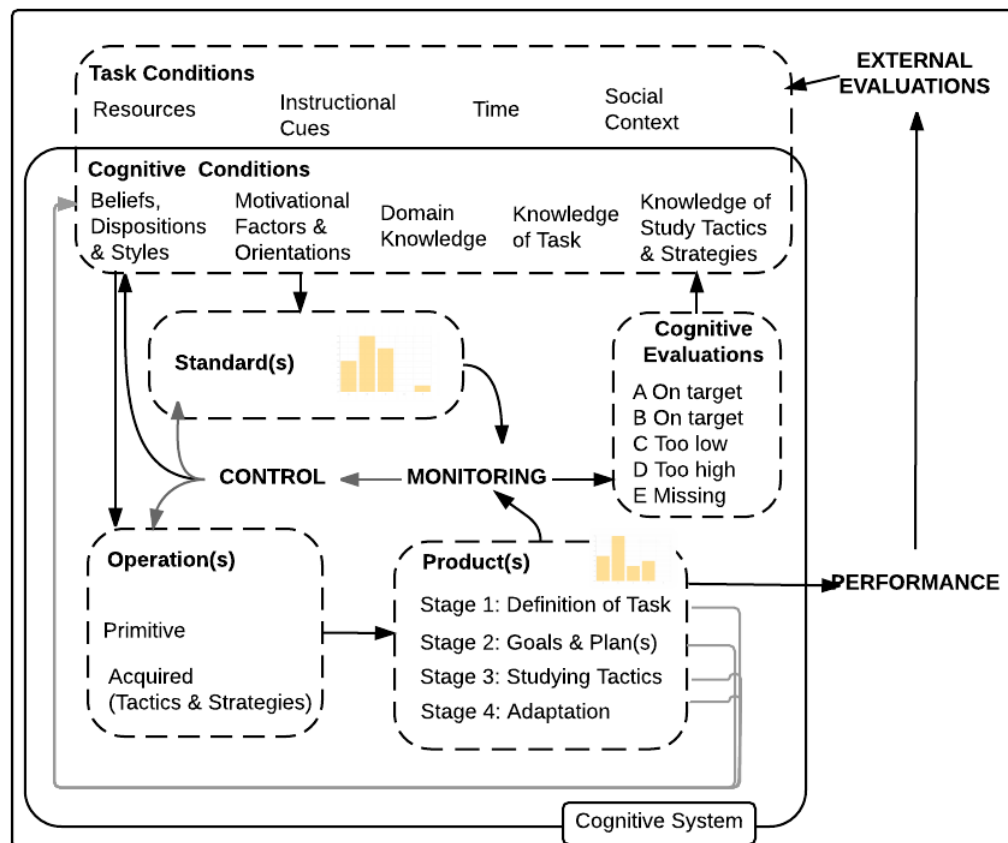


Figure 1

Four Phase Model for SRL (Winne & Hadwin, 1998)

Winne & Hadwin (1998) proposed a four-phase model of SRL accompanied by a typology of five facets, which enabled the characterisation of episodes of studying along conventional dimensions of Conditions, Operations, Products, Evaluations of products, and Standards for products. The acronym COPEs encapsulates these five facets of SRL that accompany the four-phase model of SRL proposed by Winne & Hadwin (1998). According to these researchers, SRL is essentially a motivational condition of individual learning (Van Laer, Stijn, & Jan, 2016). Both internal and external motivators exert considerable impact on SRL to achieve optimal learning outcomes in terms of knowledge and skill acquisition. The five facets of SRL are interconnected; conditions established during each of these phases impact subsequent phases of SRL. Overall, all phases of SRL operate within a unified framework. The four phases of SRL proposed by Winne & Hadwin (1998) are Task Definition, Planning and Setting of Goals, Enactment of SRL, and Adaptations. Figure 2.1 below illustrates the model of SRL proposed by Winne & Hadwin (1998, p. 280).

The COPEs model of SRL was chosen to inform the process of content delivery to the participants of the present study owing to its relatively systematic nature and effectiveness of SRL implementation.

METHODOLOGY

The study employs a quantitative dominant approach, mainly aligned to a pre-test and post-test included quasi-experimental design. The study population consists of pre-service and in-service undergraduates selected from a local government university. The University conducts full-time and part-time B.Ed. degree. The sample was selected from the academic year 2018/2019 purposively. Accordingly, 35 pre-service teachers (n=35) and 28 In-service teachers (n=28) represent the sample of the study.

The design of the study was pre and posttest based quasi-experimental, leading to quantitative dominant approach. Further, the study philosophically aligned to epistemology and it deals with social constructivism as is believed that the learner collaborates each other in the knowledge production process (The identical pre-test and post-test were developed to assess the teachers' learning achievements before and after the study intervention. The intervention was planned in alignment with the COPES Model of SRL. Test modes (Formal & Informal, Formative & Summative, Subjective & Objective, and Criterion-referenced (CRT) & Norm-referenced tests (NRT)) were taught to the teachers (Study respondents) for four weeks using the blended mode of delivery, which consists of three hours of online content delivery and three hours of face-to-face practice. Online content was delivered via Zoom, and the study materials were distributed via Google Classroom.

The study utilised basically two data collection instruments.

1. Pre-Test and post-test (identical – See Annexure - 1) – Instrument is validated via the pilot survey, and the reliability and validity were tested with Cronbach's Alpha Matrix (See Table 2)
2. Self-Rating Likert Scale Questionnaire – Questionnaire was used to collect data to test the delivery model: COPES Typology of tasks (See Table 3)

Table 2

Reliability of the test paper

Sections	Cronbach's Alpha (α)	Interpretation
Formal & Informal	0.93	Excellent
Formative & Summative	0.77	Acceptable
Objective & Subjective	0.96	Excellent
NRT & CRT	0.76	Acceptable

The power of the COPES model is measured using the Likert-Scale questionnaire developed by Barnard et. al. (2009). As it is a validated questionnaire, significant modifications were not made, but six (06) additional items were added for study purposes. The reliability of the questionnaire was tested with random units of the group. The results are reported in the Table 3.2. Cronbach's Alpha values show that the Likert-Scale Questionnaire is highly reliable ($\alpha = 0.933$) for the study purpose.

Table 3

Results of the Reliability Test for Likert-Scale Questionnaire

Results of Reliability Test for Likert-Scale Questionnaires	
Questionnaire	Cronbach's Alpha (α)
COPES Model – Likert-Scale Questionnaire (SRL)	.933

RESULTS AND FINDINGS

As it is important, a normality test was conducted to decide whether the test results are normally distributed. The pre-test results ($W(28) = .951, p > .206$) and post-test results ($W(28) = .931, p > .066$) of SRL in-service teachers are normally distributed as Shapiro-Wilk test shows that there is no a statistically significant departure from the normality in this situation, the null hypothesis do not reject as the p -value is above the significant level ($P > 0.05$). Similarly, the pre-test results ($W(35) = .971, p > .476$) and post-test results ($W(35) = .972, p > .489$) of SRL pre-service and in-service teachers are normally distributed as Shapiro-Wilk test shows that there is no a statistically significant departure from the normality in this situation, the null hypothesis fail to reject as the p -value is above the significant level ($P > 0.05$).

Table 4

One-way ANOVA – In-service teacher Group – SRL Strategy

#	IVs	DV	Results	Interpretation
1	Gender	Post-test results	$F(1,26) = 0.057, p = .813, (p > 0.05)$	There is no difference in means between groups
2	Age		$F(2,25) = 2.215, p = .130, (p > 0.05)$	There is no difference in means between groups
3	Work experiences		$F(4,23) = 1.205, p = .336, (p > 0.05)$	There is no difference in means between groups
4	Educational qualifications		$F(1,26) = 0.203, p = .656, (p > 0.05)$	There is no difference in means between groups
5	Residential area		$F(5,22) = 1.097, p = .390, (p > 0.05)$	There is no difference in means between groups

Table 5

One-way ANOVA – Pre-service teacher Group – SRL Strategy

#	IVs	DV	Results	Interpretation
1	Gender	Post-test results	$F(1,33) = 1.758, p = .194, (p > 0.05)$	There is no difference in means between groups
2	Age		$F(1,33) = 4.791, p = .036, (p < 0.05)$	There is a difference in means between groups
3	Residential area		$F(8,26) = 0.865, p = .557, (p > 0.05)$	There is no difference in means between groups

One-way ANOVA test could be used to understand whether test results significantly differed based on the levels of gender, age, work experiences, residential areas and educational qualifications (See Tables 4.1 & 4.2). Then, H_0 would be, there is no difference in means in groups, and consequently, H_1 would be, at least one mean is different from the others. Further, some of the independent variables in the study do not have two or more categories or groups (i.e. Work experiences and Educational qualifications of Pre-service teacher groups). Hence,

such independent variables could not be used in One-way ANOVA analysis, and thus, such variables were neglected.

As per the One-way ANOVA analysis conducted in relation to the independent variables (IVs) found in two Groups, there is only one situation found where there is a statistically significant difference between means and groups; the independent variable 'Age' has had a significant effect on post-test results of the SRL Pre-service teacher group.

Further, Paired sample t-test results indicated a significant increase in the marks of the students (In-service teachers – SRL) pre-test ($\mu = 49.29$, $SD = 19.14$) to post-test ($\mu = 60.54$, $SD = 18.68$), $t(27) = -10.14$, $p < 0.001$ (Two-tailed). The mean increase in the test scores was 11.25 with 99% confidence interval ranging from -14.33 to -8.18. Cohen's $d = (-1.9)$ indicates a huge effect size. Similarly, Paired-sample t-test results indicated a significant increase in the marks of the students' (Pre-service teachers – SRL) pre-test ($\mu = 48.71$, $SD = 12.74$) to post-test ($\mu = 59.86$, $SD = 12.63$), $t(34) = -7.46$, $p < 0.001$ (Two-tailed). The mean increase in the test scores was 11.14 with 99% confidence interval ranging from -15.22 to -7.46. Cohen's $d = (-1.2)$ indicates a huge effect size.

ACHIEVEMENT TEST PERFORMANCE OF IN-SERVICE TEACHERS

An independent sample t-test was conducted to compare performance over the test modes, Informal and Formal assessment, Formative and Summative assessment, Subjective and Objective assessment and Criterion-referenced and Norm-referenced assessment measured in pre-test and post-test scores with a merged data set. Results indicated that for post-test scores $\mu = 3.39$, $SD = 1.07$, while for pre-test scores $\mu = 2.68$, $SD = 1.16$. P-value of the test ($t(54) = -2.403$) is 0.020, and it is less than 0.05. So we can reject H_{0e} where there is a significant difference in Informal and Formal assessment at 5% level of significance. Therefore, there is a significant difference in Informal and Formal assessment in pre-test and post-test. Results indicated that for post-test scores $\mu = 2.82$, $SD = 0.94$, while for pre-test scores $\mu = 2.39$, $SD = 1.23$. P-value of the test ($t(54) = -1.464$) is 0.149, and it is higher than 0.05. So we do not reject H_{0f} where there is no significant difference in Formative and Summative assessment at 5% level of significance. Therefore, there is no significant difference in Formative and Summative assessments in pre-test and post-test.

Results indicated that for post-test scores $\mu = 2.21$, $SD = 0.86$, while for pre-test scores $\mu = 1.93$, $SD = 0.94$. P-value of the test ($t(54) = -1.177$) is 0.244, and it is higher than 0.05. So we do not reject H_{0g} where there is no significant difference in Subjective and Objective assessment at 5% level of significance. Therefore, there is no significant difference in the subjective and Objective assessment in the pre-test and post-test. Results indicated that for post-test scores $\mu = 3.54$, $SD = 1.29$, while for pre-test scores $\mu = 2.82$, $SD = 1.16$. P-value of the test ($t(54) = -2.181$) is 0.034, and it is less than 0.05. So we can reject H_{0h} where there is a significant difference in Criterion-referenced and Norm-referenced assessment at 5% level of significance. Therefore, there is a significant difference in Criterion-referenced and Norm-referenced assessment in pre-test and post-test.

ACHIEVEMENT TEST PERFORMANCE OF PRE-SERVICE TEACHERS

An independent sample t-test was conducted to compare test performances over the test modes, Informal and Formal assessment, Formative and Summative assessment, Subjective and Objective assessment and Criterion-referenced and Norm-referenced assessment, measured in pre-test and post-test scores with the merged data set. Results indicated that for post-test scores $\mu = 3.60$, $SD = 0.81$, while for pre-test scores $\mu = 2.89$, $SD = 0.93$. P-value of the test ($t(68) = -3.42$) is 0.001, and it is less than 0.05. So, we can reject H_{0e} where there is a significant difference in Informal and Formal assessment at 5% level of significance. Therefore, there is no significant difference in the Informal and Formal assessments in pre-test and post-test.

Results indicated that for post-test scores $\mu = 2.91$, $SD = 1.12$, while for pre-test scores $\mu = 2.46$, $SD = 1.01$. P-value of the test ($t(68) = -1.79$) is 0.078, and it is higher than 0.05. So do not reject H_{of} where there is no significant difference in Formative and Summative assessment at 5% level of significance. Therefore, there is no significant difference in Formative and Summative assessments in pre-test and post-test. Results indicated that for post-test scores $\mu = 2.20$, $SD = 0.87$, while for pre-test scores $\mu = 1.91$, $SD = 0.82$. P-value of the test ($t(68) = -1.42$) is 0.161, and it is higher than 0.05. So, we do not reject H_{og} where there is no significant difference in Subjective and Objective assessment at 5% level of significance. Therefore, there is no significant difference in the subjective and Objective assessment in pre-test and post-test. Results indicated that for post-test scores $\mu = 3.23$, $SD = 0.98$, while for pre-test scores $\mu = 2.51$, $SD = 0.98$. P-value of the test ($t(68) = -3.06$) is 0.003, and it is less than 0.05. So, we can reject H_{oh} where there is a significant difference in Criterion-referenced and Norm-referenced assessment at 5% level of significance. Therefore, there is a significant difference in Criterion-referenced and Norm-referenced assessment in pre-test and post-test.

EFFECTIVENESS OF THE COPES MODEL

To measure the effectiveness of the COPES Model for two independent groups, Multiple Linear Regression was conducted. Originally, the questionnaire, which consists of 30 items, was divided into five subscales, and with the new subscale, there were six scales with a 5-point Likert-type response design ranging from strongly agree (1) to strongly disagree (5). The subscales are Goal Setting, Environment Structuring, Task Strategies, Help Seeking, Self-evaluation and Content delivery (See Annexure – 2). In the analysis, responses were reverse-coded in SPSS (v. 25). Cronbach's Alpha test was conducted to decide the internal consistency of the items. The results are shown in Table 4.3.1.

Table 6

Internal Consistency of Sub-scales of SRL Questionnaire (Cronbach's Alpha)

Subscales	Item No	No of Items	Cronbach's Alpha
Goal Setting	1,2,3,4,5	5	.848
Environment Structuring	6,7,8,9	4	.617
Task Strategies	10,11,12,13,14,15,16	7	.830
Help Seeking	17,18,19,20	4	.631
Self-evaluation	21,22,23,24	4	.847
Content effectiveness	25,26,27,28,29,30	6	.843

As shown in Table 4.3.1, the consistency of each subscale is acceptable because Cronbach's Alpha values are above 0.6. Therefore, it could be decided that items are consistent and reliable. As the consistency of sub-scales included in both questionnaires has been acceptable (See Table 4.3.1), a Linear Regression model was used to see the power of psychometric properties of the models (x) on the respondents' post-test marks (y). Regression analysis (R^2 value) says how powerful x (*independent/predictor variables*) to make a change in y (*dependent variable*).

COPES MODEL FOR IN-SERVICE TEACHERS

The COPES model, which was used to deliver the blended content, was checked for its effectiveness using the multiple linear regression analysis. The assumptions of multiple linear regression analysis were tested and met. The objective of this study is to explore the relationship between Goal Setting (GS), Environment Structuring (ES), Task Strategies (TS), Help Seeking (HS), Self-Evaluation (SEV), and Content Effectiveness (CE) in relation to Post-test Results (PTR) of blended learning, using the COPES model for in-service teachers.

HYPOTHESES

H_{oa}: There is no significant relationship between Goal Setting (GS) and Post-test results.

H_{ob}: There is no significant relationship between Environment Structuring (ES) and Post-test results.

H_{oc}: There is no significant relationship between Task Strategies (TS) and Post-test results.

H_{od}: There is no significant relationship between Help Seeking (HS) and Post-test results.

H_{oe}: There is no significant relationship between Self-Evaluation (SEV) and Post-test results.

H_{of}: There is no significant relationship between Content Effectiveness (CE) and Post-test results.

Table 7

Means, Standard Deviations, and Intercorrelations between Post-test Achievement and Predictors (N=28)

Variables	M	SD	With post-test
Post-test	61.15	19.25	-
Predictors			
1 Goal Setting (GS)	9.15	2.81	.340*
2 Environment Structuring (ES)	7.42	1.79	.455*
3 Task Strategies (TS)	14.21	4.78	-.406*
4 Help Seeking (HS)	6.23	2.03	.316*
5 Self-Evaluation (SEV)	7.42	2.72	.419*
6 Content Effectiveness (CE)	8.11	2.85	.070*

Note: *p<.05, M: Mean, SD: Standard Deviation

Table 8

Simultaneous Multiple Regression Analysis Summary for predictors predicting Post-test achievement (N=28)

Hypotheses	Regression Weights	B	T	p-value*	Hypothesis supported
H _{oa}	GS → PTR	1.393(2.11)	.659	.581	Fail to reject H _o
H _{ob}	ES → PTR	7.590(2.79)	2.74	.014	Reject H _o
H _{oc}	TS → PTR	2.164(1.26)	1.72	.102	Fail to reject H _o
H _{od}	HS → PTR	-2.969(3.28)	-.91	.377	Fail to reject H _o
H _{oe}	SEV → PTR	-.618(2.16)	-.287	.778	Fail to reject H _o
H _{of}	CE → PTR	-2.962(1.65)	-1.79	.089	Fail to reject H _o
	(Constant)	8.394(16.78)	.500	.623	
R	.643				
R ²	.414				
Adjusted R ²	.229				
F(6,19)	2.235			.084	
SE	16.908				

Note: *p<0.05, B: Unstandardised beta, t: t-value, GS: Goal Setting, ES: Environment Structuring, TS: Task Strategies, HS: Help Seeking, SEV: Self-Evaluation, and CE: Content Effectiveness, PTR: Post-Test Results, SE: Std. error of estimates

The dependent variable, which consists of the post-test results, was regressed against the predictor variables: Goal Setting (GS), Environment Structuring (ES), Task Strategies

(TS), Help Seeking (HS), Self-Evaluation (SEV), and Content Effectiveness (CE). The predictor variables do not significantly predict the post-test results of self-regulated learning (SRL) among in-service teachers, $F(6, 19) = 2.235$, $p < 0.05$. This suggests that the six factors examined have little to no impact on the post-test outcomes. Additionally, an R^2 value of .414 indicates that the model accounts for 41% of the variance in the post-test results. Tables 4.3.1.1 and 4.3.1.2 present a summary of the findings. The multiple linear regression analysis model summary shows $R = .643$, $R^2 = .414$ and Adjusted $R^2 = .229$ (See Table 4.3.1.2). Concerning the estimated values, the multiple correlation coefficient is positive ($R = .643$), and it is a fairly good correlation. As $R^2 = .414$, it can be concluded that 41% of the variance of the dependent variable is explained by the predictor variables altogether. According to Cohen (1988), this is a medium effect size (See Table 4.3.1.2).

COPES MODEL FOR PRE-SERVICE TEACHERS

While adhering precisely to the same statistical procedure, the effectiveness of the COPES model (SRL) for the pre-service teacher group was tested under the blended classroom condition. As more than one predictor variable is found in the model, multiple linear regression analysis was performed to identify how the predictor variables could predict the variation in the dependent variable (continuous variable, normally distributed). As per the correlation table output generated by SPSS, it was understood that some predictor variables are highly correlated with each other, which means that if a predictor variable changed, it would cause a change to another, and, thereby, model results could fluctuate significantly. Further, this could lead to multicollinearity issues. The independent variables, *Self-evaluation* and *Help seeking*, correlate with each other by 0.617 and *Task strategies* and *Environment structuring* correlate with each other by 0.559 as per Person's r correlation matrix in the model. One way to handle this issue is that these predictor variables could be combined only if these combinations make a sensible and meaningful variable. Accordingly, *Self-evaluation* and *help-seeking* predictor variables were combined to compute an independent variable called 'Self-learning' as the two independent variables are talking about student self-learning skills. The other two predictor variables, *Task strategies* and *Environment structuring*, were combined to compute an independent variable called 'Task generation' as the predictor variables deal with student task generation in SRL. The assumptions of multiple linear regression analysis were, then, tested and met. Then, a regression model was run with the computed predictor variables, *Self-learning* and *Task generation*, and the results are reported.

The study problem is to investigate the association between Goal Setting (GS), Content Effectiveness (CE), Self-Learning (LS), and Task Generation (TG) on Post-test Results (PTR) of blended learning via the COPES model for Pre-service teachers.

Hypotheses

H_{0a} : There is no significant association between Goal Setting (GS) and Post-test results

H_{0b} : There is no significant association between Content Effectiveness (CE) and Post-test results

H_{0c} : There is no significant association between Self-Learning (LS) and Post-test results

H_{0d} : There is no significant association between Task Generation (TG) and Post-test results

Table 9

Means, Standard Deviations, and Intercorrelations between Post-test Achievement and Predictors (N=35)

Variables	<i>M</i>	<i>SD</i>	<i>With post-test</i>
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Post-test	24.68	11.22	-
Predictors			
1 Goal Setting (GS)	10.52	2.53	.419*
2 Content Effectiveness (CE)	8.12	2.49	.119*
3 Self-Learning (LS)	32.20	4.16	.145*
4 Task Generation (TG)	41.40	5.22	-.060*

Note: * $p < .05$, M : Mean, SD : Standard Deviation

Table 10

Simultaneous Multiple Regression Analysis Summary for predictors predicting Post-test achievement (N=35)

Hypotheses	Regression Weights	B	T	p-value*	Hypothesis supported
H _{0a}	GS → PTR	2.540(.982)	2.599	.017	Reject H ₀
H _{0b}	CE → PTR	.504(.901)	.560	.582	Fail to reject H ₀
H _{0c}	LS → PTR	1.056(.613)	1.724	.100	Fail to reject H ₀
H _{0d}	TG → PTR	.103(.498)	.207	.838	Fail to reject H ₀
	(Constant)	-44.540(30.88)	-1.443	.165	
R	.554				
R ²	.307				
Adjusted R ²	.169				
F(6,19)	2.219			.104	
SE	10.229				

Note: * $p < 0.05$, B: Unstandardised beta, t: t-value, GS: Goal Setting, CE: Content Effectiveness, LS: Self-Learning and TG: Task Generation, PTR: Post-Test Results, SE: Std. error of estimates.

The dependent variable (post-test results) was regressed on predictor variables of Goal Setting (GS), Content Effectiveness (CE), Self-Learning (LS), and Task Generation (TG). The predictor variables insignificantly predict post-test results of SRL – Pre-service teachers, $F(4,20) = 2.219$, $p < 0.05$, which indicates that the six factors under study have an insignificant impact on post-test results. Moreover, the $R^2 = .307$ depicts that the model explains 30% of the variance in post-test results. Tables 4.3.2.1 and 4.3.2.2 display the summary of the findings.

CONCLUSION

This study shows that using Self-Regulated Learning through the COPES model in a blended learning environment really helps teachers, both experienced and novice teachers, learn more about measuring and assessing student progress. The results clearly show that Self-Regulated Learning helps teachers learn and grow, and this is true for different types of teachers, such as pre-service and in-service teachers.

The study found that independent factors, like a teacher's age, can affect how well Self-Regulated Learning works. The rest of the factors, like whether the teacher is a man or a woman, how long they have been teaching and what kind of education, do not make a big difference. This means that Self-Regulated Learning can help different kinds of teachers. The way we give tests and assessments can also affect how well Self-Regulated Learning works. The study findings propose to keep studying this to see how it works with groups of teachers and different ways of teaching.

This research suggests that using Self-Regulated Learning in teacher training programs can help teachers keep learning and growing throughout their careers. As we keep

using learning frameworks like COPEs can help teachers feel confident and prepared to teach in new and different ways, which will make them better teachers and help their students learn more. Self-Regulated Learning and the COPEs model can really help teachers. This is critical for the future of education and for teachers who want to keep learning and growing.

DISCUSSION

Blended mode of course delivery has been the trend in recent years, especially in global higher education contexts (Mohammadi, Paasivara, & Kasurinen, 2025; Al-Mekhlafi et al., 2025). Its adaptability is proven and verified. Similarly, the study was planned to see the efficacy of SRL in professional teacher development contexts, as SRL lacks empirical studies in the field. Hirt et al. (2025) found that regardless of SRL skills, teachers benefit from the SRL strategy, and it needs to be further studied.

The study reveals that, as per One-way ANOVA analysis, only the 'Age' variable shows a statistically significant association with pre-service teachers' post-test results, and the rest of the independent variables do not show a statistically significant association. SRL has contributed a lot to both pre-service and in-service teachers' cognitive improvements, as paired-sample t-test results confirmed that there is a statistically significant mean difference between pre-test and post-test results, and it is verified by the effect size calculated via Cohen's *d*. Further, it is understood that the SRL strategy, once implemented via the COPEs Model, works effectively for cognitive content delivery in professional teacher development programs. Nguyen-Khoa et al. (2025) found that SRL contribute to knowledge development and improvements of teacher trainees when it is promoted tactically. Further, Kuhn et al. (2025) asserted that SRL promoted teacher trainees' ability of incorporating digital tools into university teacher education, and such tools complement the university teacher education (p. 1389). This particular finding is verified and adds further insight to the effective use of SRL in professional teacher development programs conducted by the universities. A similar study carried out by Porter and Peters-Burton (2026) revealed that SRL heightened the ability to prepare lesson planning skills, and the use of SRL is a hard process that requires more time to promote it among teachers. The present study sheds light on proposed empirical findings and widens the existing knowledge base of SRL utilisation in professional teacher education programmes.

An extended attempt was made to reveal the efficacy of using the SRL to instruct the theoretical component of the measurement and assessment course, particularly assessment modes, to teachers via a blended platform. The independent sample t-test was conducted, once both pre-service and in-service teacher sample data were merged into one, to test the effectiveness of SRL in response to the delivery of each assessment mode. The test results reported that only two modes, informal & formal and CRT & NRT, have been statistically significant for in-service teachers in learning, but the other two, formative & summative and subjective & objective, have reported statistically insignificant mean differences. For pre-service teachers, only CRT & NRT assessment modes reported a statistically significant mean difference, while the other three modes were insignificant. Accordingly, it could be justifiable to report that the SRL strategy shows a minimum effect for employing it in the delivery of an assessment course, but this decision needs to be verified via large sample empirical studies. The study findings partially match with Asadi (2025), as he mentioned that SRL has diverse benefits in promoting it among teacher trainees.

Eventually, the study made an attempt to test the effectiveness of using the COPEs model measured via five rating Likert scale questionnaire, which corresponded to six psychometric properties, and with such data, Multiple liner regression was performed to see how the data regressed from the post-test results of pre-service and in-service teachers in the achievement test. The model summary results showed that 41% ($R^2 = .414$) of the variance of the dependent variable is accounted for by psychometric properties included in the COPEs

model when it is tested with an in-service teacher sample. Similarly, the linear regression model summary shows that, for pre-service teachers, the COPEs model is 30% ($R^2 = .307$) accountable for the variance of the dependent variable. The regression result revealed that the COPEs model of SRL has medium-size effect (Cohen, 1988) on both in-service and pre-service teachers' professional knowledge development.

The study shows that SRL has significant contributions in terms of improving teacher professional knowledge requirements related to student measurements and assessment, but it suggests that SRL has to be promoted for a long time to see critical implications for the teacher development programs in universities.

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A study of Strategies for developing the Reading Skills of Key Stage 1 Students

Fernando, W.N.D.¹ and Dhanayaka, S.²

¹Faculty of Education, University of Colombo, Sri Lanka

²Department of Humanity Education, Faculty of Education, University of Colombo, Sri Lanka

* Corresponding Author Email: nipzifdo@gmail.com

ABSTRACT

This paper examines the structural use of integrated cognitive reading strategies to address the language-literacy gap faced by Key Stage 1 learners in English-medium private schools in Sri Lanka, using an action research model. Young multilingual learners often master automated phonetic decoding, whereas a lack of understanding of meaning is enormous under traditional rote learning. Building on an intervention in a primary classroom with 30 pupils that took place over six weeks. Data collection instruments were teacher questionnaires, pre- and post-test student literacy assessments, and student decoding scores, oral fluency percentage, and text comprehension. The descriptive statistics showed a significant positive transformation. The average reading fluency for the cohort was from 37.33 WPM to 52.20 WPM, and the average reading comprehension score improved from 3.73 to 7.47 (out of 10). The author concludes that applying strategies early in the learning process is effective in moving beyond mere word calling to independent meaning construction.

Keywords: *action research, key stage 1, reading comprehension, strategies, multilingual learners*

INTRODUCTION

Reading and writing are the first milestones of formal education and human cognitive growth. Reading can be viewed not only as a passive reception of visual information but also as an active, complex and multifaceted psycholinguistic process in which a learner decodes characters, processes the structural signals of written language and builds meaning from a written text (Loew, 2006). Children aged five to seven years (Key Stage 1) undergo rapid brain adaptations, from simple phonetic sound recognition to processing words as a whole. Instruction should focus on balancing automatic skills and strategic planning or awareness that reading will be the main mode of transferring knowledge from one learning area to another, as reported by Paris (2005), at this very important phase of language acquisition. The basic literacy skills acquired during these formative years will determine their academic performance in the years to come and shape how they view the world.

The consequences of basic reading ability permeate a variety of social and economic domains, and directly impact the design of public education policy, national economic

productivity, and even global measures of human capital. Earlier studies on simple statistical models consistently demonstrate that literacy levels in early life, before starting secondary school, predict secondary school leaving, long-term employment outcomes, and adult civic engagement (Almsbhiheen et al., 2023). English has become the language of technology, international business and academic publishing in the modern globalized economy. Thus, the desire to develop high-level English reading at the grassroots level in developing countries in the context of globalization is no longer merely an aesthetic cultural aspect but must be considered inevitable in policy-making processes for economic and structural development (Amin, 2019). Failure to understand early on can lead to systemic learning challenges; in a country where English is the primary language of instruction or commercial interaction, such failure can be a systemic barrier that perpetuates educational inequities and limits youth upward mobility.

The world of literacy research emphasises the importance of shifting from passive, rote-knowledge forms of reading to active, metacognitive and self-regulated forms of learning (Langan, Peek, & Mundry, 2011). Based on comparative studies, it has been determined that teachers who explicitly model text comprehension strategies, including predicting the text's trajectory, visualisation, semantic mapping, and structural self-questioning, enhance text comprehension (Küçükoğlu, 2013). In modern cognitive science, the idea that, when reading, a skilled reader constantly checks their understanding of the text and adjusts their reading and comprehension strategies depending on the difficulty and purpose of the reading has been established (Şen, 2009). International research objectively confirms that systematic instruction in cognitive reading strategies helps prepare young learners from slow, effortful word-decoding tasks to efficient, automatic word-decoding skills (Manoli & Papadopoulou, 2012). This shift creates a larger cognitive space for students, allowing them to focus less on letter sounds and more on deeper questioning of the theme's meaning and context (Pourhosein Gilakjani & Sabouri, 2016). Teachers face the challenge of striking a balance between establishing automatic decoding mechanisms and applying high-level comprehension strategies to enable students to develop fluent comprehension (Manoli & Papadopoulou, 2012).

This study directly responds to directions and issues in the private education arena. Due to the increasing demand for parents to enroll their children in private English-medium primary schools to ensure they have an international edge, there is growing pressure on these schools to achieve higher levels of literacy (Zakaria et al., 2019). At present, however, many of these institutions still use traditional teaching methods, such as reading aloud and memorising texts, as well as simple question-and-answer worksheets (Dwiningtiyas et al., 2020). This emphasis on vocabulary and verbal dexterity often obscures more significant deficiencies in understanding and word knowledge. This study examines structured strategy frameworks in this context and proposes practical solutions to help schools transition from passive memorisation to active, strategic reading comprehension (Okasha, 2020).

STATEMENT OF THE PROBLEM

One of the major challenges in Sri Lanka's private education system, highlighted by this study, is the high levels of reading comprehension difficulties and reading fluency problems at Key Stage 1. YMLs in these English-medium environments function in different linguistic settings where English is the language of instruction for all subjects in school and their home language (HML) is a local language (Zakaria et al., 2019). This creates a large discrepancy between the primary students who excel at reading aloud and those who excel at decoding individual words phonetically. However, a majority are unable to interpret or explain the significance of what they read (Almsbhiheen et al., 2023).

This is a real deficiency in contemporary primary school teaching practices. Passive, rote reading aloud and a simple worksheet memorisation format are very common in classroom reading instruction (Amin, 2019). This traditional strategy gives children in the

early years little to no way to check their own mastery level or find a solution when they do not understand. Moreover, there is a gap in the educational literature that may be described as empirical, as the educational literature prioritizes adult university students or secondary language learners (Cubukcu, 2008). This indicates that there remains a substantial gap in the adaptations for five- to seven-year-old primary school students during metacognitive strategy instruction in South Asian private schools (Şen, 2009). This instructional mismatch is critical not only from a theoretical perspective in education but also because of its potential impact on children's ongoing development. Without such conscious comprehension, primary school students are at risk of developing deep reading impairments that undermine their achievement across all curriculum disciplines (Pourhosein Gilakjani & Sabouri, 2016). On a larger scale, failing to address early literacy and reading proficiency restricts students' opportunities for further academic training and their professional mobility in an increasingly globalised economy that requires a high level of English proficiency (Abdelrahman & Bsharah, 2014). This study directly confronts this gap by designing and testing a structured, strategy-based reading model that can be used by school administrators, curriculum designers, and teachers as empirical data to improve traditional learning models by integrating evidence-based literacy models to benefit their learners. In that, this study is designed to address the gap directly by creating and testing a structured, strategy-based reading model that can be used for the replacement of the outdated classroom habits by school administrators, curriculum designers, and teachers to be implemented as an evidence-based literacy instruction for their learners (Pratiwi, 2020; Sari et al., 2019).

OBJECTIVES

1. Examine which English teaching strategies are used to support students' reading development.
2. Examine the most beneficial strategies for key stage 1 students' reading development.
3. Identify, implement and design programmes for teachers and parents for children's reading development.
4. Propose new reading strategies for the key stage one students.

SIGNIFICANCE OF THE STUDY

At the theoretical level, it can contribute to a better understanding of the process of learning to read in children, especially in multilingual environments. It is not simply the application of traditional models developed for monolingual students. In practice, it can serve as a useful guide to effective instructional methods that have been tried and tested for supporting multilingual learners, helping teachers be more proactive. Furthermore, it offers insights to Sri Lankan school administrators and those designing Sri Lankan curricula on how to choose and adapt a more suitable reading method for the Sri Lankan cultural context.

SCOPE AND LIMITATIONS

There is a scope limitation to this research project, which focuses only on early reading in KS1. That is, the restrictions include a limited number of students (30) and teachers (10), as well as a limited intervention period (6 weeks). Also, the study was conducted at a private English school in Sri Lanka. Therefore, results cannot be extrapolated to other age cohorts nationwide or to larger public schools.

LITERATURE REVIEW

Numerous research papers from around the world consistently indicate that a balanced approach to teaching reading is the most appropriate method for developing reading skills (National Reading Panel, 2000). Nevertheless, the available world evidence and the ensuing school plans are primarily based on research conducted in the West, where the student

population speaks a single language. Based on regional and local research, specialists are beginning to understand that the case is quite different for children learning English as a second language. Multilingual students experience additional mental pressure when reading and comprehending texts intended for native speakers (Bialystok, 2001). In Sri Lanka, students are known to use Sinhala or Tamil at home and to attempt to learn English in school. This creates a language barrier, so a standard phonics drill does not improve overall comprehension.

BARTLETT'S SCHEMA THEORY

This means that human understanding is based on pre-existing "nets of meaning" and knowledge about the world (Loew, 2006). In literacy learning, a student builds meaning by successfully bridging the text clues to what they already know. Perhaps the major gap in the theoretical assessment is the lack of attention to schema models in non-Western English as a Second Language (ESL) settings, where limited exposure to English is available outside the school. This study aims to fill this gap by using pre-reading Picture Talks that intentionally activate background knowledge prior to reading tasks.

KRASHEN'S INPUT HYPOTHESIS

According to this principle, a learner can learn a language quickly if he/she receives comprehensible input that is one notch higher his/her current productive level, which is represented as $i+1$ (Amin, 2019). The challenge currently emerging in school practice is that teachers rely on conventional, uniform, standardized textbooks, thereby restricting natural exposure to a variety of languages. This study addresses this by selecting graded readers at the exact right level ($i+1$) to support faster language development.

VYGOTSKY'S SOCIOCULTURAL THEORY

This theory posits that cognitive development is a socio-dependent process that occurs within the Zone of Proximal Development (ZPD) through artful scaffolding (Channa et al., 2015). Traditional classrooms in Sri Lanka suffer greatly from a practice gap, as teacher-centred pedagogy leaves no room for peer or group interaction. This research addresses this gap by designing collaborative partner-reading practices that build reading confidence through social scaffolding.

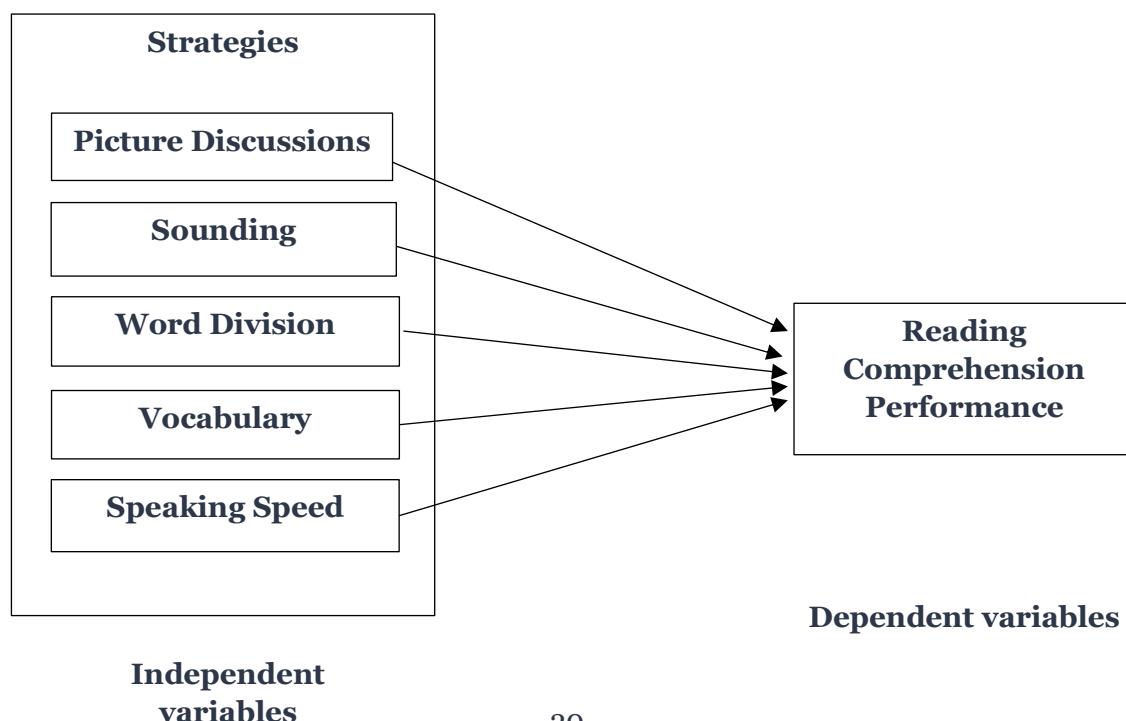


Figure 1. *Conceptual Framework*

RESEARCH GAP

To establish a valid conceptual foundation and address the journal reviewer's concerns, this study selects exactly three foundational theories. These frameworks illuminate the exact gaps between abstract literacy models and the practical realities of bilingual primary classrooms in Sri Lanka. The following structural matrix provides a direct overview of the empirical gaps and practical needs that this action research framework addresses.

Table 1

Empirical and Practical Gaps

Theoretical / Data Dimension	Previous Findings	Literature	Identified Research Gaps	Present Development	Study
Unit Demographics	Overwhelming focus on university-level or tertiary language learners (Cubukcu, 2008).		Extreme lack of empirical data on Key Stage 1 (Grades 1 & 2) learners.	Restricts the investigation to five-to seven-year-old primary cohorts.	
Methodological Approach	heavy reliance on opinion-based surveys or teacher questionnaires (Tharumaraj & Noordin, 2011).		Absence of classroom-based experimental interventions tracking actual scores.	Employs a quantitative pre-test/post-test action research design.	
Instructional Focus	Systemic focus on technical grammar rules, sentence corrections, and spelling mechanics. Traditional studies use single data streams without matching viewpoints (Dwiningtiyas et al., 2020).		Reading fluency and active metacognitive strategies remain underexplored.	Investigates the impact of explicit word division and processing pacing models.	
Data Triangulation			Lack of combined data to fully cross-verify strategy success.	Connects a 10-teacher survey with raw test metrics from 30 students.	

RESEARCH METHODOLOGY

The quantitative study design used in this study is action research, with a class-action design. Action research is a cyclical process involving systematic teams of educators to implement focused instructional interventions that address practical educational challenges and to statistically quantify performance improvements in educational outcomes (Amin, 2019). This methodology was chosen to observe and record natural cognitive-behavioral changes in normal school and cultural contexts, rather than in the clinical laboratory. Planning, action, observation, and reflection were carried out recursively across the four stages, and the observation results were used as indicators for every pedagogical change, which should be based on objectively collected baseline data (Sari et al., 2019).

The starting point for the Planning phase of the diagnostic was to map the baseline literacy and uncover the challenges students face when learning to read, using a teacher survey and a student pre-test (Rraku, 2013). This initial enquiry highlighted quantitative data that

removed the need for "lessons of the opportunity," and it revealed vital areas of learning: pupils could read phonics aloud but did not understand basic details in a paragraph.

In the next stage of the study, the commonly used approach of rote memorization to learn texts and simple reading repetition was replaced by a cognitive reading strategy intervention for six weeks (Okasha, 2020). The student group was taught to develop active text-processing skills (story previewing, syllable division and tracking the contents of a paragraph with a graphic organiser) through explicit modelling.

Observing: the data-tracking process was carried out continuously and systematically, with standardized weekly data recorded on a data sheet displaying the strategy's adoption rate (Dwiningtiyas et al., 2020). This ongoing monitoring process translated changes in children's performance from mechanical word calling to independent meaning construction into raw, unbiased numeric indicators, capturing the precise rate at which the children progressed.

Lastly, in the Reflecting phase, a descriptive statistical tool in Microsoft Excel was used to assess the overall effectiveness of the instruction by directly comparing the pre-test and post-test averages of students' results (Banditvilai, 2020). This final analytical move provided the study results with the empirical validation necessary to test the study's major hypotheses and to generate proven, long-term literacy strategies to guide early childhood primary administrators.

Data collection involved a dual-vantage selection approach to collect data from both primary and secondary groups: the learner group and the educator group, to get comprehensive information about the instructional environment. The participant sample consisted of 30 Key Stage 1 primary students (N=30) learning within an English-medium environment (Zakaria et al., 2019), alongside a professional group of 10 primary school English language teachers (N=10) who provided insight into current school methodologies (Tharumaraj & Noordin, 2011).

Data collection relied on three specific instruments designed to track practices and performance before and after the six-week program. Teacher Questionnaire: A mix of multiple-choice and scalar questions used to document traditional classroom reading practices and systemic learning barriers (Tharumaraj & Noordin, 2011). Student Pre-Test: Administered in Week 1 to measure raw baseline skills across three dependent areas: independent decoding accuracy, oral fluency speed (Words Correct Per Minute), and literal text recall. Student Post-Test: Administered in Week 6, utilising the same structural format, difficulty level, and text parameters as the pre-test to ensure all measured performance changes were accurate.

To address the weaknesses identified in the teacher survey trends, the researcher implemented five targeted reading strategies over a strict six-week action research process.

Table 2

Strategy Implementation Process

Target Framework	Strategy	Core Activity	Classroom	Weekly Frequency	Operational Structure	Pacing
1. Picture Discussions		Visual talk before reading to activate schema		5 times	Administered during the first 10 minutes of every reading lesson.	
2. Phonics Blending		Joint letter-sound merging exercises		4 times	Conducted as a rapid opener from Monday through Thursday.	

3. Word Division	Splitting long terms using syllable slash marks	3 times	Practised explicitly on Mondays, Wednesdays, and Fridays.
4. Contextual Clues	Guessing definitions using surrounding sentences	3 times	Handled mid-week (Tuesday through Thursday) during analysis.
5. Fluency Pacing	Stopwatch-timed partner repeated readings	2 times	Executed every Tuesday and Friday to build smooth speed.

DATA ANALYSIS

The empirical link between pedagogical and measurable literacy gains is the focus of the data analysis. Using a model of action research, descriptive statistics were used to determine the effectiveness of a cognitive reading strategy framework in a Key Stage 1 cohort of learners (N=30) and a professional teaching group (N=10). This analysis relies on Microsoft Excel to compare teacher surveys, pre-test scores for baseline performance, and post-intervention scores to identify key gaps in operations. The ultimate goal of data evaluation in this study is to systematically translate mechanical literacy practices into some objective, numerical evidence to support the hypotheses of the study

TEACHER CURRENT READING PRACTICES

The data, processed with descriptive statistics in Microsoft Excel, revealed a significant operational mismatch between teaching inputs and students' actual performance.

Table 3

Teacher Instructional Practices vs Perceived Student Barriers

Measurement Parameter	Always (5)	Often (4)	Sometimes (3)	Rarely (2)	Never (1)	Mean Score
Instructional Phonics Focus	6 (60%)	4 (40%)	0 (0%)	0 (0%)	0 (0%)	4.60
Instructional Word Division	0 (0%)	1 (10%)	2 (20%)	5 (50%)	2 (20%)	2.20
Instructional Pacing Speed	0 (0%)	0 (0%)	3 (30%)	4 (40%)	3 (30%)	2.00
Barrier: Reads Accurately, Fails Meaning	7 (70%)	2 (20%)	1 (10%)	0 (0%)	0 (0%)	4.60
Barrier: High-Performance Anxiety	4 (40%)	5 (50%)	1 (10%)	0 (0%)	0 (0%)	4.30

Table 3 indicates that, although phonics blending is practised consistently (Mean = 4.60), word division (Mean = 2.20) and reading pacing (Mean = 2.00) are severely underdeveloped. This can account for the comprehension paradox: while pupils can routinely use verbal word-calling skills, 90% of teachers report that pupils experience high emotional anxiety during reading-aloud activities and difficulties with routine understanding tasks on texts (Pourhosein Gilakjani & Sabouri, 2016).

PRE-TEST VS POST-TEST STUDENT PERFORMANCE OUTCOMES

Data from the 30 primary students who comprised the numeric growth-tracking cohort confirm a significant shift in children's performance on each dependent measure post the 6-week strategy intervention.

Table 4

Student Performance

Dependent Metric Evaluated	Pre-Test Mean	Post-Test Mean	Net Mean Differences	Final Strategy Impact
Part 1: Decoding Score	6.93 / 10	8.13 / 10	+1.20	Word division directly reinforced basic letter-sounding patterns.
Part 2: Fluency Speed	37.33 WPM	52.20 WPM	+14.87	Pacing exercises reduced the Slow Speed group to 0.00%.
Part 3: Comprehension Mark	3.73 / 10	7.47 / 10	+3.74	Clear strategic integration doubled the class mean score.

The performance data organized in Table 4 proves that explicit strategy instruction yields superior literacy outcomes. The cohort's baseline means decoding score advanced from 6.93 to 8.13, indicating that teaching advanced syllable division directly reinforced basic letter-sound mechanics (Paris, 2005). More importantly, the collective fluency tracking accelerated by 14.87 WPM, lifting the class mean speed to 52.20 WPM and eliminating the slow-speed category below 30 WPM, which originally accounted for 23.33% of the cohort (Abdelrahman & Bsharah, 2014). Finally, the group's reading comprehension mean score doubled, rising from a failing baseline of 3.73 to a highly successful 7.47 out of 10, demonstrating that the intervention enabled students to construct deep textual meaning (Okasha, 2020).

DISCUSSION

This study demonstrated the inequity in the classroom, whereby many young children were taught to read (phonics) but not to understand (Tharumaraj & Noordin, 2011). The study accurately identified a crucial balance issue in current practice. Data showed that teachers have been using uniform activities for phonics and wordwise reading, and seldom use the active comprehension system. At the same time, students' word-calling ability is quite high. However, their comprehension of the text is limited, as stated by Tharumaraj and Noordin (2011).

As well as the usefulness of the pre-reading picture discussion and contextual guessing and paragraph mapping as valuable tools for key stage 1 learners, with their scores doubling compared to the class mean score (Okasha, 2020). This research intervention demonstrated that the gains in literacy from processing pictures prior to reading, paragraph mapping, and contextual guessing (all cognitive strategies) are most significant when all are incorporated. The use of these methods helped disempower students' passive repetition in the learning process. It increased students' average reading comprehension score by 2 times, which was consistent with the findings of Okasha (2020).

When providing planned lessons, discarding grammar worksheets and introducing home reading logs for parents to monitor (Channa et al., 2015). It has successfully replaced traditional, repetitive Worksheets with Active classroom modeling and incorporated the supportive framework of Channa et al. (2015) in the form of a home reading log to actively engage parents in following their child's progress daily. Lastly, we identified by proposing and validating innovative word-splitting and pacing models that increased students' processing speed. The study presented and implemented new word-processing systems, such as visual syllable slash-marking for word division and timed partner repeated-reading systems. The proposed models have directly contributed to students' fluency and to improving this group's reading speed by 14.87 words per minute, a result similar to that reported by Abdelrahman and Bsharah (2014).

CONCLUSION

This study successfully achieved all four of its primary research objectives through a structured six-week action research cycle. To achieve this objective 1, the first objective examined current teaching strategies and revealed a significant imbalance in classrooms. The data showed that traditional practices are limited to uniform phonics drills and reading aloud. This year's students are to become good at calling out words, but it does not enable them to understand paragraphs or explain what they have read.

A review of the most suitable tools was performed for the second objective with regard to Key Stage 1 learners. The results showed that active cognitive approaches (pre-reading picture discussion, paragraph mapping, and contextual guessing) are very effective. The class average for reading comprehension was doubled by using these techniques, which interrupted the passive repetition pattern. As in the third objective, structured programs have been successfully designed and implemented for educators and parents. Depending on the classroom, the boredom of traditional, repetitive worksheets was eliminated, and active modelling was introduced. The daily reading log was implemented to help parents at home to monitor and encourage their children's reading habits.

Finally, for the fourth objective, innovative reading strategies such as visual syllable slash-marking for word division and timed partner reading were proposed and tested. As a direct result of these new models, the students' processing speeds increased, and the cohort's average reading fluency increased by 14.87 words per minute, while the slow-speed category was removed altogether.

This study offers significant implications for the field of education regarding early childhood literacy development in bilingual private schools. One is that oral reading accuracy and beautiful verbal pronunciation can be deceptive and cannot indicate whether a person comprehended what they are reading. Traditional learning mechanisms engage the brain in memorizing words mechanically, with minimal effort on the part of the young brain, and fail to equip them to analyze or evaluate their meaning (Pourhosein Gilakjani & Sabouri, 2016). Secondly, primary students aged 5-7 years and gifted secondary school students show cognitive maturity in managing the meaning of the texts they read when applying text comprehension strategies (Şen, 2009). If teachers introduce and consistently scaffold these gradual release tools, such as context clues, syllable division line marks, and visual organizers, children can easily learn to monitor and self-correct when they have cognitive difficulties with comprehension.

RECOMMENDATIONS

In the primary courses, the private school boards should choose the learning materials that meet and follow the guidance of learning materials given by the Department of Education, that is, to use the colour-coded storybook that can be used in various types of learning, level $i+1$, which is the difficulty of the book that is higher. Private school boards should update their primary learning resources to align with the Department of Education's guidance, namely the use of storybooks in various colours and difficulty levels that are one level up ($i+1$) from the main course materials. Administrators will be needed to ensure regular PD sessions to teach primary teachers the importance of explicitly teaching active comprehension systems, such as the CPQS framework (Okasha, 2020).

The teacher must use picture discussions in the first 10 minutes of each lesson to generate students' mental schema before their interaction with the text (Loew, 2006). Visual slash marks are recommended for use on the whiteboard to model syllable breakdown, and timed partner-reading blocks are recommended to develop speedy reading (Abdelrahman & Bsharah, 2014; Manoli & Papadopoulou, 2012). At home, parents should encourage children

to talk about the pictures in English storybooks for 15 minutes each evening, using simple reading log sheets.

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The Influence of Family Income on Motivation and Learning Achievement among Tamil Medium Senior Secondary Students in the Colombo Educational Zone

Logaprasath, V. ¹, and Athirathan, S. ²

¹Faculty of Education, University of Colombo, Sri Lanka

²Department of Social Science Education, Faculty of Education, University of Colombo, Sri Lanka

* Corresponding Author Email: vanajah3@gmail.com

ABSTRACT

Differences in family income and socioeconomic status can impact students' motivation and learning achievement. This descriptive cross-sectional survey study examined the influence of family income on student motivation and learning achievement among Tamil-medium senior secondary students in the Colombo Educational Zone of Sri Lanka. The study also examined the moderator effect of family income on relationship between motivation and learning achievement. 360 students from Grades 10 and 11 were selected by stratified random sampling from Tamil Medium schools in Colombo Educational Zone with equal number of male and female participants. 24 class teachers, 72 parents, and twelve principals were also included in this study. Validated adapted Academic Motivation Scale was used to assess motivation, and average examination marks from recent common examination were used to assess the learning achievement. Nonparametric tests, correlation analysis, hierarchical regression, and bootstrap methods were used to analyze the data. The findings showed statistically significant differences in learning achievement, intrinsic motivation, and extrinsic motivation across family income groups. Learning achievement showed a small-to-moderate positive correlation with family income ($\rho = 0.244$, $p < 0.001$), suggesting better learning achievement with higher family income. Extrinsic motivation also showed a small positive association with income, whereas intrinsic motivation did not exhibit a significant monotonic relationship. Regression analysis indicated that both motivation and family income independently predicted learning achievement. Family income significantly moderates the relationship between motivation and learning achievement ($B = 0.49$, 95% CI [0.20, 0.79]). This suggests that students from higher family incomes are more likely to translate motivation into learning achievement. These findings suggest that motivation enhances learning achievement at all income levels. However, students from higher family income are more likely to translate motivation into learning achievement. This study underscores the influence of family income on motivation and learning achievement. Both motivational development and income-related inequalities should be addressed to ensure that all students have equal opportunities to succeed.

Keywords: *motivation, family income, socioeconomic status, school context, learning achievement*

INTRODUCTION

Motivation is a stimulus which gives an individual a purpose and changes their behavior to achieve their desired outcome. It can operate at both conscious and unconscious level in individuals (APA, 2018). Motivation shapes how individuals think, learn, and act toward their goals. Motivation can be divided into intrinsic and extrinsic motivation. Intrinsic motivation arises from inherent pleasure in doing the activity while extrinsic motivation arises from external incentives such as rewards, fear of punishment or failure (Deci & Ryan, 2000, 2020). In the education setting, intrinsic motivation arises when students find personal satisfaction and pleasure in learning and engage in learning activities. They identify the meaning and values of activities in case of intrinsic motivation. External motivation arises when students focus on achieving high grades, gaining approval, or avoiding failure or punishment.

Motivation types and levels differ among students. Studies have shown that higher levels of motivation were associated with better learning achievement (Athirathan, 2025; Deci & Ryan, 2020). Several studies have found out the positive effect of intrinsic motivation on learning achievement (Deci & Ryan, 2020; Howard *et al.*, 2021). Meta-analysis conducted by Howard *et al.* (2021) revealed comparable findings suggested by Deci and Ryan (2000, 2020). They revealed that external regulation of extrinsic motivation was not associated with positive outcomes while other subtypes of extrinsic motivation which had some autonomous components (introjected, identification, integration) showed positive association with positive learning outcomes. These studies have supported the influence of motivation on learning achievement.

Socioeconomic status (SES) is a composite measure of income, education attainment, occupational prestige, subjective perceptions of social status or social class (APA, 2023). Sirin (2005) found out that variations in measuring SES among studies and parental income, parental education and parental occupation were traditionally used in SES measurements. Parental income could indicate SES as it reflects the available social and economic resources available to the students (Sirin, 2005). Important finding in literature is that students with higher socioeconomic status tend to show better academic achievement. Three large meta-analyses revealed the positive association between SES and academic achievement with moderate or medium to strong association (Liu, Peng & Luo, 2020; Selvitopu & Kaya, 2021; Sirin, 2005). Selvitopu & Kaya (2021) and Sirin (2005) covered the studies from 1990-2000 and 2010-2019 respectively. However, another meta-analysis published in 1982 revealed that weak correlation between socioeconomic status and academic achievement (White, 1982). Strength of association might have varied by how SES is measured and by contextual factors such as country, school level or subject. However, recent meta-analysis revealed that socioeconomic status plays an important role in learning achievement (Selvitopu & Kaya, 2021). These literatures support the influence of family income on learning achievement.

Several studies have shown that higher SES was positively associated with motivation to learning (Akram & Ghani, 2013; Effiong, Ndidi, & Obogo, 2020). Effiong *et al.* (2020) conducted a large study with 3941 students in Nigeria and found out a significant relation between parental income and motivation level to study mathematics.

Sri Lanka has been facing economic volatility. National poverty rate was 22.4% in 2025 under the US\$4.20 international poverty line (World Bank, 2025). Abayasekara and Arunatilake (2018) found out that underprivileged schools showed lower exam outcomes in Sri Lanka. Lower family income could have partly contributed to that outcome. Another Sri Lankan study conducted by Perera (2021) found that, school conditions severely undermine

students' motivation and engagement in low socio-economic background districts. Recent national analyses revealed that disparity in allocation of teachers, infrastructure, and funding between National and Provincial schools, as well as between urban and rural sectors (Centre for Poverty Analysis [CEPA], 2024). In this background, family income could affect students' motivation and learning achievement, although Sri Lanka is known for its free education. Financial difficulties of family can limit access to learning materials, private tuition, digital resources and resourceful schools. Household income may influence students' school attendance, motivation, and academic performance. However, Limited data were available on studies conducted in Sri Lanka examining the effects of family income on learning achievement and motivation. Limited data were available in moderator effect of family income on relationship between family income and learning achievement both locally and internationally. Studies focusing on effects of family income on subtypes of motivation (intrinsic and extrinsic motivation) were also minimal. This present study focused on addressing these gaps in Sri Lankan literature and study the influence of family income on motivation and learning achievement. Although SES was widely studied in international literature, Sirin (2005) noted that SES was inconsistent in studies with family income was one of the frequently studied parameters in SES. Therefore, we used family income as proxy for SES with the background of limitations of reliable data collection in other SES parameters. Tamil-medium senior secondary students in the Colombo Education Zone were selected for this research as this group has not received much attention in earlier research on motivation and learning achievement. Aim of this study was to provide data on how economic inequalities could influence the students' motivation and academic outcome, which would be useful to improve the students' motivation and learning achievement. This article is based on a larger study which collected and analyzed large data from students including motivation, gender, family income, school resources, school types, location of school and parental education. However Detailed explanation of these factors is beyond the scope of this article. Those findings would be reported in a separate article.

THEORETICAL PERSPECTIVES

Family income can influence the learning achievement by several ways. It can directly improve the learning achievement due to increased educational opportunities, tuition and increased availability of resources. on the other hand, family income can also influence learning achievement through the motivation – learning achievement relationship. This study used both self-determination theory and expectancy value theory to explain the influence of family income on motivation and learning achievement.

SELF-DETERMINATION THEORY (SDT)

SDT developed by Deci and Ryan (2020) explains how quality of motivation differs among students and how fulfillment of basic psychological needs can affect the motivation. It argues that students who are intrinsically motivated are more likely to achieve better learning outcomes when compared to students who are extrinsically motivated. Deci and Ryan (2020) support that argument with several studies conducted on SDT. External regulation such as rewards, fear of punishment or failure could make the students not recognize the true value and meaning of learning. It can affect their learning achievement long term. SDT suggests that intrinsic motivation improves when students' basic psychological needs are supported. autonomy, competence, and relatedness were identified as basic psychological needs by Deci and Ryan. Autonomy is having sense of control over own's actions. Competency is the feeling that one can succeed. Relatedness is feeling of connection or belonging to the activity one is involved in. When these basic needs are satisfied, internal factors would contribute to motivation and intrinsic motivation improve. Di Domenico & Fournier (2014) found out that that basic psychological need fulfillment proposed by SDT was positively predicted by the subjective SES and objective household income. This study links the SDT with the family income. Family income could influence motivation through basic psychological needs.

EXPECTANCY VALUE THEORY (EVT)

Expectancy value theory proposes that achievement related behaviors are mainly determined by individual's belief of ability, anticipation of success and individual's task values to the activities (Wigfield & Eccles, 2000). It suggests when the students feel learning activity is meaningful and valuable along with their beliefs of their ability and success, they are more likely to engage in and persist with learning activities. If a person feels that he cannot be success in the effort, they will not be interested in engaging in the activity as per the EVT. Expectancy value theory also helps to explain how family income can affect the learning achievement. Students with higher incomes may develop stronger academic self-belief and expectancy of success compared to students with less family income due to access to tuition, learning materials, and a supportive and resourceful environment. They are more likely to anticipate success and engage in learning activities. It would help them to improve their motivation and achievement of learning. Students with less family income might lose interest in engaging in learning activities due to perceived cost of education and lack of resources.

INTEGRATING THE THEORIES FOR THE PRESENT STUDY

Both SDT and EVT complement each other in explaining how the family income can influence motivation and learning achievement. SDT explains that family income influence motivation through the fulfillment of basic psychological needs. EVT explains that family income influences motivation through self-belief and anticipation of success due to family support and resource availability.

These integrated theories also help to explain how family income can have a moderator effect on relationship between motivation and learning achievement. Motivation may not translate into learning achievement equally in different family income levels, because family income can possibly influence the student self-belief, fulfillment of basic psychological needs.

CONCEPTUAL FRAMEWORK

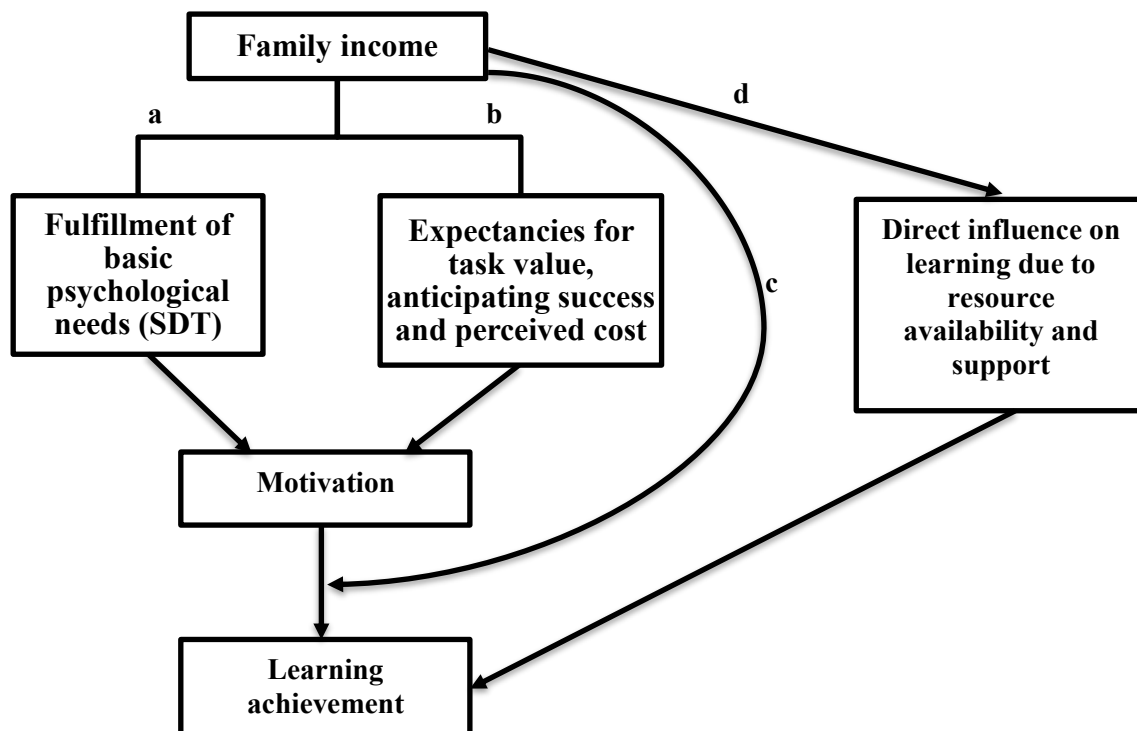


Figure 1

Conceptual framework of theoretical perspectives

Figure 1 shows the conceptual framework of this study. Influence of motivation on learning achievement was established in several studies and increase in motivation is associated with increased learning achievement. Family income can influence the learning achievement in multiple ways. Several pathways are shown in the figure such as a, b, c, d to present how the family income can influence both motivation and learning achievement. Pathway a point out how SDT links the family income with motivation and learning achievement by means of basic psychological needs. Pathway b demonstrates explanation by EVT that family income can influence motivation through self-beliefs and anticipation of success. Pathway C indicates how family income can influence the learning achievement through moderator effect on relationship between motivation and learning achievement. It also acknowledges that family income can directly influence the learning achievement in pathway d, due to financial support and availability of resources.

AIM

To study the influence of family income on motivation and learning achievement among senior secondary Tamil medium students in Colombo Educational Zone.

OBJECTIVES

1. To study difference in learning achievement across family income levels.
2. To study difference in intrinsic motivation across family income levels.
3. To study difference in extrinsic motivation across family income levels.
4. To study the moderator effect of family income on relationship between motivation and learning achievement.

NULL HYPOTHESIS:

H₀₁: There is no significant difference in learning achievement across different family income levels.

H₀₂: There is no significant difference in intrinsic motivation across different family income levels.

H₀₃: There is no significant difference in extrinsic motivation across different family income levels.

H₀₄: Family income does not moderate the relationship between motivation and learning achievement.

METHODOLOGY

Descriptive cross-sectional survey study was conducted among Grade 10 and 11 students in Tamil-medium schools of the Colombo Education Zone to study the influence of family income on motivation and learning achievement. In addition, moderation effect of family income on relationship between motivation and learning achievement. Study population is senior secondary students studying in Colombo Educational Zone. Study population comprises 5883 grade 10 and 11 students studying in 45 Tamil medium schools. Sample size was decided as 360 based on Krejcie & Morgan (1970) chart. Two stage stratified random sampling was used

to select the participants while making sure that there was adequate representation of students from different backgrounds. Proportionate stratified random sampling was applied in the first stage to select the 12 schools according to the school types and governance (provincial vs National). Disproportionate stratified random sampling was applied in second stage to select 180 female students and 180 male students from the selected schools. Additionally supplementary data was collected from 24 class teachers, 72 parents, and 12 principals.

Grade 10 and 11 Tamil medium students who gave consent were included in the study. Students who were absent during data collection or students who did not give consent were excluded from the study. This two-stage stratified random sampling ensured adequate representation of students across different school types, socioeconomic background with equal representation of both genders.

Data from students were collected from self administered questionnaire. It consists of mainly 3 sections. First section was regarding socioeconomic and demographic data. It collected information such as age, gender, grade level, parental educational status, and monthly family income. Second section assessed the motivation of students using a validated adapted version of the Academic Motivation Scale (AMS) which was based on the self determination theory by Deci and Ryan. Third section was regarding their learning achievement which was assessed by the average marks obtained in recent zonal level common examination.

Average marks obtained in the most recent school term examinations conducted by the Department of Education of Colombo Education Zone were used to assess the learning achievement. As all students sat the same common examination papers, the average marks could be a standard comparable measure of learning achievement. This method is also used to reduce the variability associated with assessments conducted by individual teachers and schools.

This study used family income as a proxy to socioeconomic status. Monthly Family income was collected from the participants. Monthly family income was divided into 6 groups such as Less than Rs 30000, Rs 30000-59999, Rs 60000- Rs 89999, Rs 90000- 119999, Rs 120000- 149999 and Rs 150000 or above. Quantitative data analysis was done using SPSS. As motivation scores did not follow normal distribution, nonparametric statistical tests were used in analysis.

AMS was originally developed by Vallerand et al. (1992). It was translated into Tamil as study population consisted of Tamil medium students. It was reviewed for linguistic accuracy and preservation of original content by experts in education and psychology. Scales, subscales and response format were preserved in the translated version. Its wordings were adapted and modified to local cultural and social context with input from experts.

Researchers conducted pilot study prior to main study in three Tamil medium schools which were not included in the study sample. One school, each of school types 1AB, 1C and II were selected. Total 36 students from selected schools were included in the pilot study with 12 each from one school. Cronbach's alpha coefficient was used to assess the reliability of questionnaire and adapted AMS scale. Personal details of students (socioeconomic and demographic details) got Cronbach's Alpha value of 0.837. AMS scale got Cronbach's Alpha value of 0.832 while intrinsic motivation scale and extrinsic motivation scale got Cronbach's Alpha values of 0.751 and 0.727 respectively. These Cronbach's Alpha values indicate the satisfactory reliability of the questionnaire. Several modifications were made to improve the internal consistency based on the pilot study.

Approval of the study was obtained from the Dean, Faculty of Education, University of Colombo after review by expert team of Faculty of Education, University of Colombo. Permission was taken from Zonal Education office and principals of selected schools.

Participation in the study was voluntary. Participants were informed about the purpose of study, potential benefits of the study and confidentiality of the data. Only the students who volunteered and gave consent were included in the study.

Data collection was done during school hours with help from teachers and staff of the school. Questionnaires were directly given to students and were provided with adequate time to complete the questionnaire independently. No personal identification details were collected from the participants. Data would remain anonymous. All the information collected would be used only for research purposes. All the data collected would be stored confidentially in a safe place which would only be accessible to authors. It would be stored for a period of 5 years and discarded permanently thereafter.

Data entering and analysis were done in statistical Package for the Social Sciences (SPSS) software. Median, interquartile range, minimum and maximum values were used to present descriptive data since the motivation levels did not follow normal distribution. However mean and standard deviation were also presented to supplement the findings. Nonparametric tests such Kruskal Wallis test, Spearman's rank order correlation analysis were used in the analysis as the data did not follow normal distribution. Kruskal Wallis test, was used to study the difference in motivation and learning achievement across family income groups. Spearman's rank order correlation analysis was used to analyze the relationship between family income, motivation and learning achievement.

Hierarchical multiple regression analysis supplemented with Bootstrap confidence intervals were used to examine the moderator effect of family income on relationship between motivation and learning achievement. A p-value less than 0.05 was considered statistically significant. Disproportionate stratified random sampling was used in the second stage of sampling. Therefore, sample was not proportionate representation of study population. We used weighting procedure to calculate statistical weights. Calculated weights were applied during data analyses (weighted post hoc analyses of Kruskal Wallis Test, Weighted spearman correlation and weighted regression analyses) to correct the disproportion in the study population and samples. It helped to improve the true representation of study population.

RESULTS

LEARNING ACHIEVEMENT ACROSS FAMILY INCOME LEVELS

We have examined the learning achievement across family income levels and applied nonparametric tests to study the difference across family income levels and correlation between family income and learning achievement.

Table 1

Descriptive Statistics for Learning Achievement Across Six Family Income Levels

Family Income Level	Mean	SD	Median	IQR	Min	Max
Less than Rs 30000	41.99	17.61	42.89	28.00	2.78	82.67
Rs 30000-59999	49.81	16.57	50.11	22.95	14.67	87.78
Rs 60000- Rs 89999	45.60	21.45	44.33	32.69	9.11	91.56
Rs 90000- 119999	60.34	17.55	63.56	23.78	25.67	87.77
Rs 120000- 149999	53.42	22.84	52.84	41.23	17.44	88.67
Rs 150000 or above	58.67	16.87	63.00	22.89	21.56	85.67

Note. IQR = Interquartile Range, SD- Standard Deviation

Table 1 presents the learning achievement across family income groups. Students from higher family income group showed higher learning achievement than students from lower family income group. The median values followed a general increasing trend, although middle income groups showed fluctuations.

LEARNING ACHIEVEMENT ACROSS DIFFERENT FAMILY INCOME LEVELS

Table 2 shows that statistically significant difference was noted in learning achievement across family income levels ($p < 0.001$) with the rejection of the null hypothesis (H_{01}). This indicates that learning achievement differs across different income groups. A moderate effect was noted in effect size calculation ($\eta^2 = 0.09$). It suggests that family income accounts for approximately 9% of the variance in learning achievement.

Table 2

Kruskal–Wallis test comparing learning achievement across family income levels

Variable	H	df	p
Learning Achievement across Family Income Levels	35.77	5	< 0.001

Figure 2 presents the box plot chart of the independent samples Kruskal Wallis Test of learning achievement with the family income levels (Less than Rs 30000, Rs 30000-59999, Rs 60000- Rs 89999, Rs 90000- 119999, Rs 120000- 149999 and Rs 150000 or above). It reveals a general increasing trend in median value along with increasing family income. This finding is statistically supported by Spearman's rank-order correlation. As shown in Table 3, the relationship between family income and learning achievement showed a statistically significant positive correlation ($\rho = 0.244$, $p < 0.001$) with small to moderate strength. It indicates that learning achievement increases with increasing family income.

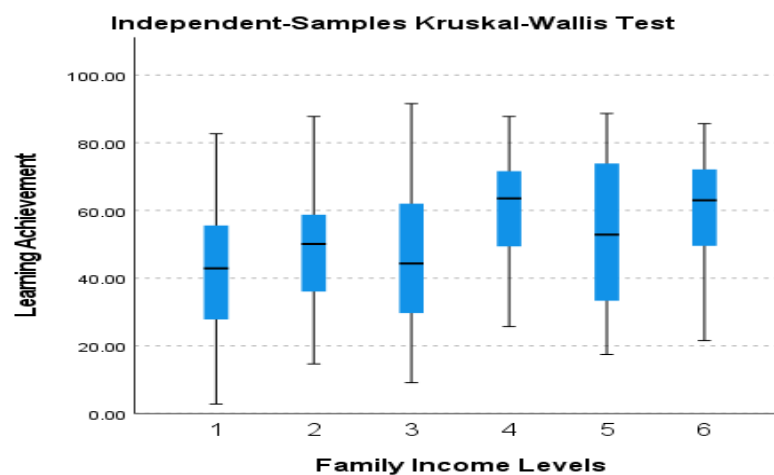


Figure 2

Boxplot of Learning Achievement Across Family Income Levels

Note. 1-Less than Rs 30000, 2-Rs 30000-59999, 3-Rs 60000- Rs 89999,4-Rs 90000- 119999, 5-Rs 120000- 149999 and 6-Rs 150000 or above

Table 3

Spearman's rank-order correlations between family income and study variables (n = 360)

Variable	ρ (Spearman)	p
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Intrinsic Motivation (IM)	0.084	0.110
Extrinsic Motivation (EM)	0.134*	0.011
Academic Motivation (AMS)	0.112*	0.034
Learning Achievement	0.244**	< 0.001

Note. Spearman's ρ reported (two-tailed), * $p < 0.05$, ** $p < 0.01$.

Table 3 demonstrates Spearman's rank order correlation between family come groups and extrinsic motivation, intrinsic motivation and overall academic motivation. Extrinsic motivation and academic motivation showed significant correlation with family income groups although strength was small.

MOTIVATION DIMENSIONS ACROSS SIX FAMILY INCOME LEVELS

Table 4 presents the motivation parameters across family income groups. Motivations dimensions showed fluctuations when family income increased from lowest to highest levels. Students from higher family income (Rs 90000-Rs119999 and Rs 150000 or above groups) showed comparatively higher mean motivation scores. On the other hand, lower income groups (less than Rs 30000 and Rs 60000- Rs 89999) showed comparatively lower motivation scores.

Table 4.

Descriptive statistics for motivation dimensions across six family income levels

Family Income Level	IM M (SD)	IM Md (IQR)	EM M (SD)	EM Md (IQR)	AMS M (SD)	AMS Md (IQR)
Less than Rs 30000	4.33 (2.33)	5.50 (4.92)	4.40 (2.38)	5.58 (4.96)	4.37 (2.34)	5.71 (4.94)
Rs 30000-Rs59999	5.21 (2.08)	6.21 (2.10)	5.18 (2.14)	6.21 (2.75)	5.20 (2.10)	6.27 (2.33)
Rs 60000- Rs 89999	4.56 (2.28)	5.88 (4.83)	4.61 (2.38)	6.08 (5.08)	4.59 (2.32)	5.96 (5.00)
Rs 90000- Rs119999	5.69 (1.67)	6.25 (0.83)	5.85 (1.74)	6.58 (0.83)	5.77 (1.69)	6.38 (0.92)
Rs 120000- Rs149999	4.52 (2.34)	5.96 (4.92)	4.52 (2.39)	5.96 (5.08)	4.52 (2.36)	6.04 (4.93)
Rs 150000 or above	5.40 (1.75)	6.00 (1.54)	5.72 (1.82)	6.46 (0.73)	5.56 (1.77)	6.25 (1.13)

Note. IM = Intrinsic Motivation; EM = Extrinsic Motivation; AMS = Academic Motivation Scale total score; M = Mean; SD = Standard Deviation; Md = Median.

INTRINSIC MOTIVATION ACROSS FAMILY INCOME LEVELS

Kruskal Wallis test was conducted to assess differences among intrinsic motivation across family income levels.

Table 5

Kruskal Wallis test for differences in intrinsic motivation across family income levels

Variable	H	df	p
Intrinsic Motivation Across Family Income Levels	16.41	5	0.006

According to Table 5, Intrinsic motivation showed statistically significant difference among six family income groups ($p < 0.05$). It rejected the null hypothesis (H_{02}). It indicates

that intrinsic motivation was not similar among different family income groups. Effect size calculation revealed small effect ($\eta^2 = 0.03$) with approximately 3% of the variance in intrinsic motivation associated with family income.

Although the Kruskal Wallis test showed a statistically significant difference in intrinsic motivation across family income groups, Spearman's rank correlation was not significant (Table 4). This suggests that, although intrinsic motivation differed among certain family income groups, intrinsic motivation did not show a monotonic pattern. That means intrinsic motivation did not increase consistently with increasing family income levels.

EXTRINSIC MOTIVATION ACROSS DIFFERENT FAMILY INCOME LEVELS

Table 6

Kruskal Wallis test for differences in extrinsic motivation across family income levels

Variable	H	df	p
Extrinsic Motivation Across Family Income Levels	22.35	5	< 0.001

Statistically significant differences in extrinsic motivation across six family income groups ($p < 0.001$) were observed according to Table 6. The null hypothesis (H_{03}) was rejected. Therefore, there are significant differences in extrinsic motivation along with differences in family income.

A Moderate effect was found in the effect size calculation ($\eta^2 = 0.05$). This suggests that approximately 5% of the variance in extrinsic motivation was associated with family income. Statistically significant positive correlations were observed between family income and extrinsic motivation with small strength as per Table 4 ($\rho = 0.134$, $p < 0.05$). This indicates that an increase in family income was correlated with an increase in extrinsic motivation, although the strength of this correlation was small.

MODERATING EFFECT OF FAMILY INCOME ON THE RELATIONSHIP BETWEEN MOTIVATION AND LEARNING ACHIEVEMENT

Hierarchical regression analysis was performed to study the moderating effect of family income on the relationship between motivation and learning achievement. An interaction term between motivation and family income was included in the regression model to analyze the moderator effect of family income.

Table 7

Hierarchical regression analysis testing the moderating effect of family income on the relationship between motivation and learning achievement

Predictor	B	SE (HC3)	95% CI for B	t	p
Motivation	6.66	0.24	[6.19, 7.13]	27.69	< 0.001
Family Income	2.12	0.39	[1.35, 2.89]	5.41	< 0.001
Motivation $\times$ Family Income	0.49	0.15	[0.20, 0.79]	3.29	< 0.01

Note. HC3 robust standard errors reported. Model fit: $R^2 = 0.608$, Adjusted $R^2 = 0.605$, $F(3, 356) = 274.30$, $p < 0.001$. Interaction effect: $\Delta R^2 = 0.0068$, $F(1, 356) = 10.84$, $p = 0.001$.

The regression model had three variables motivation, family income and interaction between motivation and family income. Analysis demonstrated that all three variables

predicted the learning achievement as per the data presented in Table 7. Motivation significantly predicted the learning achievement with the interaction coefficient value of 6.66. It suggests that higher motivation is associated with higher learning achievement. Family income also significantly predicted learning achievement with interaction coefficient value of 2.12. It indicates that students from higher family incomes tend to achieve better in learning. The interaction term (Motivation $\times$ Family Income) significantly predicted the learning achievement with interaction coefficient of 0.49. This indicates that family income strengthens the impact of motivation on learning achievement. These three variables explained 60.8% of the variance in learning achievement. Adding the motivation $\times$ family income interaction term improved the model although the increase in the variance was 0.68%. However, variance was statistically significant ($p < 0.05$) and confirmed the presence of moderation.

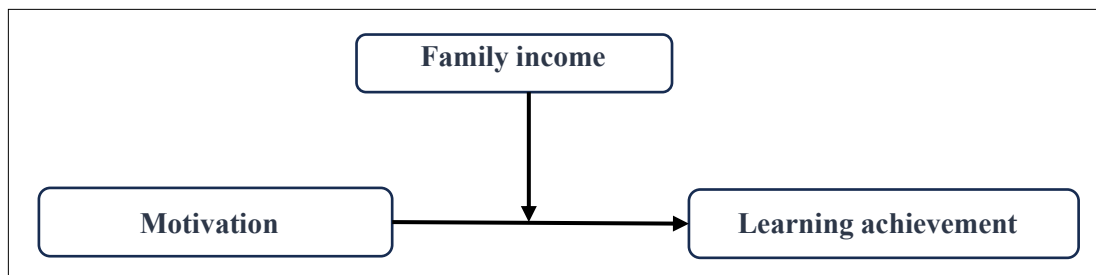


Figure 3

Conceptual moderation model (Family income as moderator)

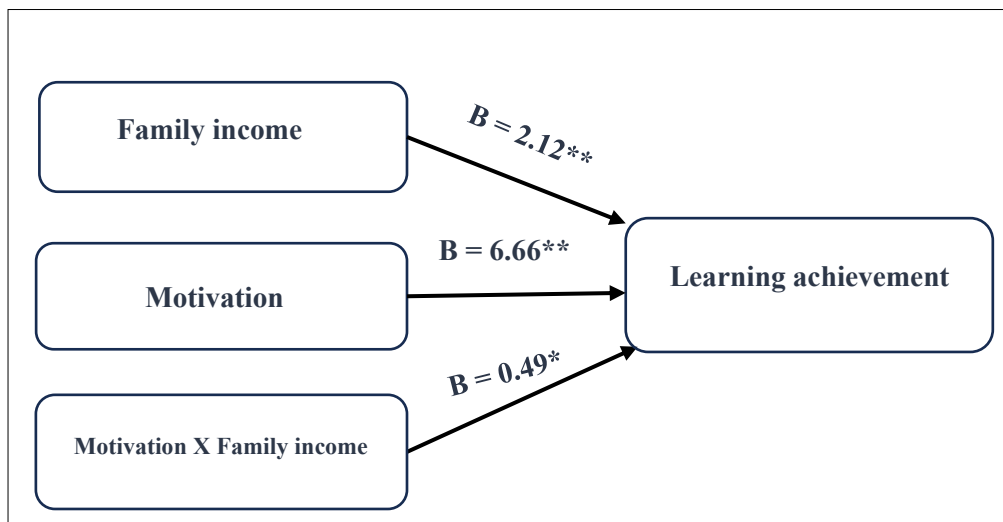


Figure 4

Statistical moderation model (Family income as moderator)

Conceptual moderation model of this moderation analysis is shown in Figure 3. It shows that motivation is expected to influence learning achievement directly. At the same time, family income is expected to moderate the effect of motivation on learning achievement. Statistical results of the moderation analysis is also presented as statistical moderation mode in Figure 4.

Table 8

Conditional effects of motivation on learning achievement at different levels of family income

Family Income Level	B	SE (HC3)	95% CI for B	t	p
Low (16th percentile)	5.73	0.39	[4.97, 6.50]	14.71	< 0.001
Median (50th percentile)	6.72	0.24	[6.25, 7.19]	28.08	< 0.001
High (84th percentile)	7.70	0.38	[6.96, 8.44]	20.46	< 0.001

We did the conditional effects analysis to study how the effect of motivation on learning achievement changes at different levels of family income. Table 8 presents the findings of the analysis. When the family income levels increase from low to high, unstandardized regression coefficient (B) increases from 5.73 to 7.70. However, family income had significant positive effect at all the income levels ($p < 0.001$). This analysis indicates that although motivation significantly improves the learning achievement at all income levels, impact of motivation increases with family income. This supports the moderation effect of family income on relationship between motivation and learning achievement.

Table 9

Bootstrap analysis of the interaction effect between motivation and family income

Predictor	B	Boot SE	Boot LLCI	Boot ULCI
Motivation × Family Income	0.49	0.15	0.20	0.79

Note. 5,000 bootstrap samples; 95% confidence interval. The interaction effect is significant because the confidence interval does not include zero.

The bootstrap analysis (5,000 samples) was done to confirm the reliability and stability of the results. As shown in Table 9, Bootstrap analysis confirmed the interaction effect with interaction coefficient value of 0.49 and boot standard error of 0.15. Since the confidence intervals did not reach zero, the moderation effect is statistically significant. This strengthens the findings and confirms that the moderating effect is not due to sampling error. The bootstrap results confirm that family income significantly moderates the relationship between motivation and learning achievement. Therefore, the null hypothesis (H_{04}) is rejected.

CONCLUSION

This study examined the influence of family income on motivation and learning achievement among Tamil-medium senior secondary students in the Colombo Educational Zone. The results indicate that significant difference was seen in learning achievements across different family income groups. Students with higher family income showed higher learning achievement than the students from the lower family income groups. Learning achievement showed a small-to-moderate positive association with family income.

Intrinsic motivation differed among certain family income groups with significant difference. However intrinsic motivation did not show a monotonic increasing or decreasing pattern with the family income. Extrinsic motivation showed significant differences among family income groups. Overall motivation and extrinsic motivation showed small positive correlation with family income group, indicating increase in extrinsic motivation levels when the family income increased although effect strength was small.

Family income also independently predicted learning achievement in the regression analysis. Regression analysis also revealed that motivation positively predicted achievement across all income level with significantly stronger effect among students from higher family income. This suggests that students from higher family incomes are more likely to translate motivation into learning achievement. This gives an additional advantage for economically advantageous students. Self determination theory and expectancy value theory were used to

partly explain the differences observed in motivation and learning achievement across family income levels.

These findings highlight the influence of motivation and family income on learning outcomes. Educational policies and reforms should focus on addressing disadvantages caused by low family income. Further studies in Sri Lanka are warranted incorporating large diverse samples and longitudinal study design across the country addressing the limitations of this study.

DISCUSSION

The present study examined the influence of family income on motivation and learning achievement among Tamil-medium senior secondary students in the Colombo Educational Zone. It also studied the moderating role of income. The findings showed strong empirical evidence that family income influences both motivation and learning achievement and moderates the relationship between motivation and learning achievement. This study showed statistically significant differences in learning achievement across family income groups. Learning achievement also showed small to moderate positive correlation (Spearman's $\rho = 0.244$) with family income levels, suggesting better learning achievement with the higher family income. These findings are comparable to large international studies (Liu, Peng & Luo, 2020; Selvitopu & Kaya, 2021). Family income independently predicted learning achievement in the regression models, further supporting the influence of family income on the learning achievement. Another significant finding in this study is that family income significantly strengthens the relationship between motivation and learning achievement by moderator effect. Although motivation positively predicts learning achievement at all income levels, students from higher family income are better able to translate motivation into learning achievement. Students with higher family income tend to have access to private tuition, resourceful schools and quality teaching than the students with lower family income. These factors could directly contribute to a supporting and demanding environment for learning achievement.

On the other hand, Family income could influence learning achievement through pathways explained by SDT and EVT. Several studies have established positive relationship between motivation and learning achievement (Athirathan, 2025; Deci & Ryan, 2020). Students with higher family income tend to fulfill the basic psychological needs that the students from lower family income which would be advantageous for them to develop the motivation (Ryan & Deci, 2000). Expectancy Value Theory suggests that students' academic performance depends on their belief that they can succeed and their understanding of the value of the task (Wigfield & Eccles, 2000). Students from higher family income backgrounds may develop stronger beliefs of success because they have greater access to private tuition, quality schooling, academic support, and clearer career pathways. These could contribute to improving motivation among students. Therefore, family income can act through pathways explained by SDT and EVT to influence the learning achievement by directly or indirectly improving motivation.

This study confirmed the significant differences in motivation, intrinsic motivation, extrinsic motivation across family income levels while overall motivation and extrinsic motivation showing positive correlation with family income. These findings were comparable to international studies which showed positive correlation between SES and motivation to learn (Akram & Ghani, 2013; Effiong, Ndidi, & Obogo, 2020). The results were supportive of theoretical explanation by SDT and EVT on how the family income can influence the learning achievement.

Educational inequalities were pointed out by national reports in Sri Lanka. Notably CEPA (2024) revealed disparity in allocation of teachers, infrastructure, and funding between National and Provincial schools, as well as between urban and rural sectors. These inequalities could reflect in the learning achievement of students. Students with low family income could further be affected as present study revealed the significant influence of family income on learning achievement and motivation. The results highlight the importance of both motivation and family income on learning achievement. Future educational policies and educational reforms in Sri Lanka should prioritize both motivational enhancement and appropriate resource allocation to ensure that students from lower family income have equal access to similar resources and school environment available to students from higher family income.

LIMITATIONS

This study had several limitations. Self administered questionnaires might have introduced social desirability bias among students. As descriptive cross-sectional survey design was used in this study, cause and effect relationship could not be established from this study. Longitudinal studies are recommended to study changes with time. This study was limited to Tamil medium schools in Colombo Educational Zone, which consists of an urban setting. This affects the generalization of results to whole population of Sri Lanka. Further studies are recommended incorporating students from rural areas, Sinhala and English medium schools and other district students to generalize the findings to Sri Lankan populations. Independent effect of basic psychological needs such as autonomy, competence and relatedness explained in SDT were not studied in the present study. This study used family income as a proxy to socio economic status. Parental education, occupation and other SES parameters should be incorporated in a standard way in future studies in Sri Lanka. This article is based on a larger study which collected and analyzed data on family income, gender, school resources, school types, location of school and parental education. Detailed explanation of these factors is beyond the scope of this article. Those findings would be reported in a separate article.

RECOMMENDATIONS

Based on the findings of this study, researchers would like to give several recommendations to both educators and policy makers. Students with lower socioeconomic backgrounds and low family incomes should be identified and targeted programmes should be implemented with psychological support to improve motivation. It can help them to overcome the disadvantage due to low family income.

Teachers should be trained to support the autonomy and competence of students with regular workshops. Teachers and learning environment should be supportive to give the students self-belief that they can succeed. Regular awareness programmes and counselling sessions can be arranged to improve the motivation of students while focusing on improving intrinsic motivation.

Resource poor schools should be identified, and inequalities should be addressed to promote equal learning opportunities for all the students. Policymakers should implement targeted financial and educational support for the disadvantaged students with low family income. Policymakers should implement policies to support a learning environment that encourages fulfillment of basic psychological needs and improve motivation among students.

Regular school-based motivation programmes can be conducted to improve motivation, self-efficacy and psychological well-being with more emphasis on students with low socioeconomic status. Regular in-service teacher training should be implemented with inclusion of modules on motivational psychology, socioeconomic inequalities in education, inclusive pedagogy, and strategies to support disadvantaged learners.

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The Influence of Psychosocial Factors on the Job Performance of Primary Teachers

Abesekara, A.G.T. ¹, and Herath, H.M.J.C. ²

¹Faculty of Education, University of Colombo, Sri Lanka

²Department of Social Science Education, Faculty of Education, University of Colombo, Sri Lanka

* Corresponding Author Email: abesekaragt18@gmail.com

ABSTRACT

This study aims to examine the influence of psychosocial factors — family environment, school culture, and community support — on the job performance of primary school teachers in the Anuradhapura District, Sri Lanka. The study sought to (1) examine the impact of the family environment on the job performance of primary teachers, (2) investigate the impact of school culture on their job performance, (3) examine the impact of the school community on teachers' job performance, and (4) analyze the interrelationships among these three factors. Of the 32 schools in the Rambewa Division, 8 schools were selected using purposive sampling and simple random sampling. Data were obtained from 90 teachers, 40 parents, and 8 principals through a questionnaire administered to teachers and parents and interviews conducted with principals, and were analyzed using a mixed-methods approach. Self-Determination Theory and Psychosocial Development Theory served as the theoretical basis for the study, with quantitative data analyzed using SPSS software and qualitative data analyzed through thematic analysis. The Cronbach's alpha value testing the reliability of the teacher questionnaire was 0.560. The objective analysis confirmed that family support provides limited support for teachers' performance ($M = 1.9827$, $SD = 0.5244$). The school environment provides a high level of support for teachers' performance ($M = 3.5444$, $SD = 0.12268$). School community support for teachers' performance was also found to be limited ($M = 1.9667$, $SD = 0.06961$), indicating that the school community provides less support for teachers' performance. Furthermore, Pearson correlation analysis revealed no statistically significant correlations among the factors: the correlation between family support and community support was $r = .097$, between family support and school environment was $r = .027$, and between school environment and community support was $r = .056$. Based on these findings, the study recommends developing teacher-family counselling and support programs, appointing administratively skilled principals and expanding digital administration tools to sustain the strongly supportive school environment, and modernizing communication with parents alongside targeted community-engagement strategies — particularly in rural schools — to strengthen the otherwise limited family and community support for teacher performance.

Keywords: *influence, primary teachers, job performance, psychosocial factors*

INTRODUCTION

Teachers' job performance is the contribution that teachers make toward achieving the goals and objectives of education within the teaching and learning process (Ozdemir & Goren, 2017;

Ozdemir & Yirmibeş, 2016). The nature of the school environment can have both positive and negative psychological and social effects on teachers' job performance (Khalid, 2022). By studying this situation on a scientific basis and identifying solutions, it will be possible to achieve better outcomes through the reform, modernization, and revision of the concept of primary education in Sri Lanka. The lack of a supportive mental and social environment for teachers creates problems in carrying out the teaching and learning process efficiently and effectively within the school system (Nart & Batur, 2014). A distinctive feature of the teaching profession is that it requires constant adaptation to daily innovations, changes, and uncertainties (Coley & Martin, 2016). Since the psychosocial development of teachers, built on innovations in the school environment, ensures the efficiency and effectiveness of the teaching and learning process, the measures that can be taken to support the psychosocial development of teachers also warrant discussion.

The objectives of this research are to examine the impact of the family environment on the job performance of primary teachers, to investigate the impact of school culture on the job performance of those teachers, and to examine the impact of the community on teachers' job performance. The interrelationships between family environment, school culture, and community-related factors affecting the job performance of primary school teachers were also analyzed. Teachers are a human resource possessing the knowledge, skills, abilities, and attitudes that are essential for effective leadership, alongside teaching effectiveness (Kot, 2018). Teachers' autonomy and work-life balance have a significant impact on job performance (Johari et al., 2018). As a developing country, Sri Lanka has very few studies examining the impact of psychosocial factors on teachers' job performance. It is therefore important to identify the impact of these psychosocial factors and to propose the necessary suggestions and policies to make teachers' work more effective. Since the questionnaires administered to teachers and parents in this research consisted of multiple-choice questions, the ability to capture their true thoughts and opinions was limited.

LITERATURE REVIEW

PSYCHOSOCIAL DEVELOPMENT THEORY

According to Psychosocial Development Theory, there are eight predetermined and interconnected stages of development (Erikson, 1950): Trust vs. Mistrust (birth–18 months), Autonomy vs. Shame/Doubt (18 months–3 years), Initiative vs. Guilt (3–5 years), Industry vs. Inferiority (6–11 years), Identity vs. Confusion (12–18 years), Intimacy vs. Isolation (18–40 years), Generativity vs. Stagnation (40–65 years), and Integrity vs. Despair (65+ years) (Susan, 2019, pp. 2–4).

Since teachers and Principals between the ages of 18 and 65 are randomly selected for this research, only the 6 and 7 stages will be discussed here primarily. During the 6th stage (ages 18–40), the individual expects to feel secure and loved, and if this is not the case, they will become lonely and stressed. Teachers are more likely to be socially and psychologically, well-adjusted by receiving the security they expect from their family and school environments, which helps them to perform better in their jobs (Erikson, 1950). During stage 7 (ages 40–65), the individual expects to be successful at work and to establish his or her place of employment. It is also stated that personal development and performance are necessary at this stage. Erikson (1950) expects teachers to achieve these personal development and performance conditions in their workplace.

SELF-DETERMINATION THEORY

Self-Determination Theory is a theory of human motivation that emphasizes people's innate psychological needs for autonomy (a sense of control), competence (a sense of effectiveness), and relatedness (a sense of interconnectedness with others) (Deci & Ryan, 1985). Through the

fulfilment of these needs, teachers' mental stress is reduced through the recognition of their talents and a sense of success and usefulness based on student responses.

The independence that the teacher receives increases creativity and happiness through the freedom to make decisions and choose activities under new teaching methods and new designs. Self-confidence in the ability to do a task successfully through talent, guidance for student learning, and increased professional self-confidence are confirmed. Social security and happiness are increased through maintaining quality relationships with others through interpersonal relationships. This allows the teacher's independence and talents to be used, so internal motivation is strengthened. Then teachers are motivated to do their profession with enthusiasm.

Teacher–student relationships, collegial relationships among teachers, and teacher–principal relationships are strengthened, and school culture is thereby built. The leadership style of the school principal plays a significant role in the motivation and well-being of teachers (Eyal & Roth, 2011). This theory has been applied successfully across multiple fields (Deci et al., 1985); in the present research it is discussed specifically within the field of education.

TEACHERS' JOB PERFORMANCE

Teachers' job performance is influenced by a range of personal, family, organizational, and community-related factors. Previous research indicates that the family environment can have an important influence on teachers' professional functioning. Oselumese et al. (2016) highlighted the relevance of family-related circumstances to teachers' performance, while Aguirre et al. (2023) found that work–family conflict is associated with different dimensions of employee performance. Similarly, Mangaleshwaran and Sivapathasundaram (2024) reported that the economic status of teachers' families can have a direct influence on their professional performance. These findings suggest that teachers' professional responsibilities cannot be considered independently of their family and socioeconomic circumstances.

The school environment is another important context influencing teachers' job performance. Fatima et al. (2022) emphasized the role of the school environment in shaping teachers' professional functioning. The leadership and management practices of school heads are particularly important, as effective administrative practices can influence teachers' motivation, engagement, and performance. Song et al. (2018) identified structural relationships among organizational learning culture, self-efficacy, work engagement, and job performance. Similarly, Igoni (2020) demonstrated that the administrative practices of principals have a significant influence on the job performance of teaching staff. These findings emphasize the importance of supportive leadership, positive organizational culture, and effective school management in promoting teachers' professional performance.

The broader school community also contributes to teachers' professional effectiveness. Thacien and Ndayambaje (2025) reported a strong positive relationship between community involvement and teacher performance. Epstein and Sheldon (2016) emphasized that policies promoting parental involvement are more effective when principals and educational leaders actively facilitate meaningful participation by families and communities. Bush and Glover (2014) similarly highlighted the importance of leadership and community support in creating a learning environment that promotes teachers' professional development and student achievement. Thus, collaboration among teachers, school leaders, parents, and community members can contribute to a supportive educational environment.

The interaction among family, school, and community factors is particularly important in understanding teachers' job performance. Skaalvik et al. (2017) found that increased work–family conflict can negatively affect teachers' professional functioning, whereas positive school cultures may strengthen self-efficacy and motivation. Teachers' workload is also an important consideration, as excessive demands can interfere with work–family balance and may

negatively affect job satisfaction and performance over time (Toropova et al., 2021). Collectively, these studies indicate that teachers' job performance is shaped by the interaction of individual, family, organizational, and social conditions rather than by a single factor.

CONCEPTUAL FRAMEWORK

The conceptual framework of the present study is based on two central concepts: teachers' job performance and psychosocial factors. These concepts provide a foundation for understanding how teachers' professional effectiveness may be influenced by their work and social environments.

JOB PERFORMANCE

Job performance can be understood as the total expected value contributed by an individual to an organization over a specified period (Motowidlo et al., 1997). In the educational context, teachers' job performance reflects the extent to which teachers effectively fulfil their professional responsibilities and contribute to educational goals. Ozdemir and Goren (2017) emphasized that teachers' performance is closely associated with their contribution to achieving educational objectives and their continuous professional improvement. Similarly, Zippy et al. (2014) highlighted the importance of improving teachers' job performance in enhancing the quality of teaching and education.

Teachers' job performance encompasses various dimensions of professional practice, including lesson preparation, classroom instruction, assessment, classroom management, professional responsibilities, collaboration with colleagues, and engagement with learners and the wider school community. Consequently, improving teachers' professional competencies and providing appropriate opportunities for continuous professional development are important for strengthening educational quality. Capacity-building programmes and institutional support can provide teachers with opportunities to develop their knowledge, skills, and professional competencies.

PSYCHOSOCIAL FACTORS

Psychosocial factors refer to the interactions among the work environment, job content, organizational conditions, individual characteristics, and social relationships that can influence individuals' health, well-being, and work performance (Gomez et al., 2023). In the teaching profession, psychosocial factors may arise from workload, work-family relationships, organizational culture, leadership, interpersonal relationships, job demands, professional autonomy, and the availability of social and institutional support.

Teachers increasingly perform roles that extend beyond the traditional responsibility of facilitating classroom learning. They may also provide emotional, social, and psychosocial support to students while responding to diverse educational and social needs. Liesel et al. (2015) emphasized the importance of appropriate professional development and support systems that enable teachers to respond effectively to these expanding responsibilities. Costanta et al. (2011) similarly reported that initial teacher-training programmes can contribute to the development of teachers' psychosocial competencies and support their socio-professional integration.

The relationship between psychosocial factors and teachers' job performance has also been highlighted in previous research. Odebode and Aminet (2018), in their study of female teachers in Kwara State, Nigeria, identified psychosocial factors as important considerations in teachers' professional performance. Their findings emphasize the need for appropriate strategies and supportive working conditions to help teachers manage psychosocial demands effectively. Therefore, psychosocial factors constitute an important component of the conceptual understanding of teachers' job performance, particularly because teachers'

professional effectiveness is closely connected to their psychological well-being, workplace relationships, organizational environment, and ability to manage competing professional and personal demands.

Methodology

A survey-type study using mixed methods was conducted to obtain data. A quantitatively large sample was selected comprising teachers, principals, and parents. The population for this research comprised 8 schools — two each of Type 1AB, Type 1C, Type 2, and Type 3 — drawn from the 32 schools in the Rambewa Educational Division of the Anuradhapura Educational Zone. Type 1AB and Type 1C schools were selected using purposive sampling, while Type 2 and Type 3 schools were selected using simple random sampling. A total of 90 teacher participants were selected: 25 teachers from Type 1AB schools, 10 teachers from Type 1C schools, and 5 teachers each from the remaining school types. Five parents from each school were selected using simple random sampling, and the 8 principals of the eight schools were also included, giving a total sample of 138 participants.

Both quantitative and qualitative data were collected for this research. Quantitative data were collected using a questionnaire administered to teachers and parents, and qualitative data were collected through interviews with principals. Quantitative data were analyzed using SPSS software. For the qualitative component, a 14-item interview schedule was used with principals, and the resulting data were coded and analyzed thematically according to six main themes.

Since information was collected from schools for this research, the necessary approvals and permissions were obtained from the North Central Provincial Education Office and the Anuradhapura Education Zonal Office. No information was obtained to confirm the identity of the participants, and no photographs of participants were taken. The information obtained was not used for any other personal purpose. Measures were taken to ensure that participants would not suffer any physical or psychological harm and to protect the confidentiality of the information they provided. Participants were also informed that they could withdraw from providing information at any time, and that data collected would not be used for any research other than this study.

RESULTS

The results are presented below according to the four objectives of the study: the influence of the family environment, the influence of school culture, the influence of the school community, and the interrelationships among these three factors.

INFLUENCE OF THE FAMILY ENVIRONMENT ON TEACHERS' JOB PERFORMANCE

The mean value of family support for teachers' job performance was 1.9827 (SD = 0.5244), indicating that family support has a relatively limited effect on teachers' performance.

Table 1

The Influence of Family Environment on Teacher Performance

Statistic	Value
N (Valid)	90
N (Missing)	0
Mean	1.9827
Std. Deviation	.05244

INFLUENCE OF SCHOOL CULTURE ON TEACHERS' JOB PERFORMANCE

Examining the support received from the school environment for the job performance of primary teachers, the mean value was 3.5444 (SD = 0.12268), indicating that the school environment provides a very high level of support for teachers' performance.

Table 2

The Impact of School Culture on Teacher Performance

Statistic	Value
N (Valid)	90
N (Missing)	0
Mean	3.5444
Std. Deviation	.12268

INFLUENCE OF THE SCHOOL COMMUNITY ON TEACHERS' JOB PERFORMANCE

Data analysis revealed that the mean value of school community support for teachers' job performance was 1.9667 (SD = 0.06961). Accordingly, community support provides limited support for teachers' job performance and is not sufficient to enhance teachers' performance.

Table 3

The Influence of the School Community on Teachers' Job Performance

Statistic	Value
N (Valid)	90
N (Missing)	0
Mean	1.9667
Std. Deviation	.06961

INTERRELATIONSHIPS AMONG THE FACTORS

Examining the interrelationships between the factors affecting teachers' job performance, the Pearson correlation coefficient between family support and community support was as low as .097. This indicates that there is no significant correlation between family support and community support in relation to the job performance of primary school teachers.

Table 4

Correlation Between Family Support and Community Support

	Family Support	Community Support
Family Support Pearson Correlation	1	.097
Sig. (2-tailed)	—	.364
N	90	90
Community Support Pearson Correlation	.097	1
Sig. (2-tailed)	.364	—
N	90	90

When calculating the correlation between family support and the school environment affecting teachers' job performance, the Pearson correlation value was as low as .027, indicating that changes in family support do not have a significant impact on the school environment.

Table 5

Correlation Between Family Support and School Culture

	Family Support	School Culture
Family Support Pearson Correlation	1	.027
Sig. (2-tailed)	—	.803
N	90	90
School Culture Pearson Correlation	.027	1
Sig. (2-tailed)	.803	—
N	90	90

When calculating the correlation between the school environment and community support among the factors affecting teachers' job performance, the Pearson coefficient between these factors was as low as .056, indicating that there is no statistically significant correlation between the school environment and community support in relation to primary school teachers' job performance.

Table 6

Correlation Between School Culture and Community Support

	School Culture	Community Support
School Culture Pearson Correlation	1	.056
Sig. (2-tailed)	—	.601
N	90	90
Community Support Pearson Correlation	.056	1
Sig. (2-tailed)	.601	—
N	90	90

CONCLUSION

The results obtained under the first objective indicated that the mean value of family support for teachers' job performance was 1.9827 (SD = 0.5244); accordingly, family support provides fairly limited support for teachers' performance. Under the second objective, the mean value of school-environment support for primary teachers' job performance was 3.5444 (SD = 0.12268), indicating that the school environment provides a very high level of support for teachers' performance. The mean value of school community support for teachers' performance was 1.9667 (SD = 0.06961), indicating that community support provides limited support for teachers' performance and is not sufficient to enhance it.

The Pearson correlation between family support and community support affecting the job performance of primary school teachers was as low as .097; it is therefore concluded that no significant correlation exists between these two factors. Likewise, since the Pearson correlation value between family support and the school environment was as low as .027, it is concluded that no significant correlation exists between these factors. Finally, since the Pearson correlation value between the school environment and community support was as low as .056, it is concluded that no statistically significant correlation exists between the school environment and community support among the factors affecting primary school teachers' job performance.

DISCUSSION

The results of the data analysis confirmed that the mean value of family support for teachers' performance was 1.9827 (SD = 0.5244), indicating that family support provides somewhat limited support for teachers' performance. Contrary to this finding, Safrida et al. (2023) showed that family support has a significantly positive effect on teacher performance. Similarly, Mukarramah and Chalil (2020) also found that family support has a positive effect on employee performance, and Mirza (2017) reported that family support — understood as the acceptance of one family member by another — has a positive effect on the performance of teachers in West Jakarta. Thus, prior research has generally shown a positive relationship between the family environment and teacher performance, which contrasts with the more limited relationship observed in the present study.

Hakim et al. (2018) demonstrated a correlation between school culture and teacher performance. The data analysis in this research identified that the mean value of school-environment support for primary teachers' job performance was 3.5444 (SD = 0.12268), confirming that the school environment provides a very high level of support for teachers' performance. Ali et al. (2016) similarly showed that stronger school culture is associated with higher teacher productivity, and Mutohar and Trisnantari (2020) found that school culture has a strong impact on improving teachers' performance and productivity. School culture also contributes to the development of positive values within schools (Shahed et al., 2019) and has a positive impact on teachers' professional development (Rauf et al., 2018). Taken together, these findings confirm that school culture exerts a strong influence on teachers' job performance.

Myende and Nhlumayo (2020) found that parental involvement in rural schools tends to provide less support to teachers. The data analysis in this research similarly confirmed that the mean value of school community support for teachers' job performance was 1.9667 (SD = 0.06961), indicating that community support provides limited support for teachers' performance and is not sufficient to enhance it. In this regard, Popowska et al. (2021) found that primary school teachers were satisfied with the level of mutual cooperation with parents, which suggests that the support provided by the community environment for teachers' job performance remains insufficient overall.

The Pearson correlation coefficient between family support and community support was as low as .097, indicating no significant correlation between these factors in relation to teachers' job performance. Similarly, the Pearson correlation coefficient between family support and the school environment was as low as .027, indicating no significant correlation between these factors. Pratiwi and Warlizasusi (2023) showed that teachers' work-motivation factors have a greater impact on teacher performance than these environmental factors, and Shubaidah et al. (2021) found that the principal also plays a highly influential role in shaping the school environment and teachers' work motivation. Shine et al. (2023) emphasized the importance of humane decision-making regarding teachers within the school, and Indjung et al. (2021) found that principals' leadership contributes more strongly to teacher performance than other contextual factors. The Pearson coefficient for the relationship between the school environment and community support was likewise low, at .056, confirming that there is no statistically significant relationship between the school environment and community support among the factors affecting primary teachers' job performance. Sirite et al. (2021) similarly showed that a principal's transformational leadership, together with work culture, work environment, and community support, influences teacher performance.

RECOMMENDATIONS

With respect to the first objective, this research confirmed that the family environment does not have a strong impact on teachers' job performance. However, since some effect was

observed, policymakers should develop counselling programs to help teachers maintain a balance between their profession and family life, and should consider assigning teachers to schools closer to their homes. It is also important to organize programs that increase interaction between teachers, school principals, and teachers' family members.

With respect to the second objective, improving teacher performance within a school has a strong impact on the school's entire educational process. Since the school environment was found to have a strong impact on the performance of primary school teachers, school principals with strong administrative knowledge should be selected and appointed to schools; doing so can reduce organizational and administrative pressure within schools. Similarly, the use of digital technology and online methods for teaching, learning, and administrative work — including e-filing — should be developed. Organizing leadership-training programs and wellness activities such as yoga to improve social well-being and maintain quality relationships within the school community is also important.

With respect to the third objective, although the contribution of the school community was not found to have a strong impact on teachers' job performance, it remains essential for primary school teachers to receive social and psychological support from the school community. Support from the school community can be strengthened by modernizing communication and by organizing programs to foster positive attitudes among parents in rural schools. Strategies and alternative methods should be used to secure parental support for school programs in rural areas, particularly during the farming season.

With respect to the fourth objective, although the interrelationships between the family environment, school environment, and community support for the performance of primary school teachers were not statistically significant, equipping teachers with knowledge about self-employment opportunities would allow both teachers and parents to guide and share knowledge regarding such opportunities. The recommendations presented here are intended to enhance the performance of primary school teachers within the broader education system.

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The Impact of Psychosocial Factors of the Grade 5 Scholarship Examination on Students' Self-Esteem

Gunasekara, G.D.N.D,¹ and Senarath, S.²

¹*Faculty of Education, University of Colombo, Sri Lanka*

²*Department of Educational Psychology, Faculty of Education, University of Colombo, Sri Lanka*

* Corresponding Author Email: pgrsamudra@edpsy.cmb.ac.lk

ABSTRACT

This study examined the impact of psychosocial factors associated with the Grade 5 Scholarship Examination on primary school students' self-esteem across four division zones in the Sri Jayawardenepura Education Zone. Utilizing an explanatory sequential mixed-methods design, a sample of 320 male and female students was selected via stratified random sampling. Quantitative data were collected using the Coopersmith Self-Esteem Inventory (CSEI) and a self-developed psychosocial questionnaire, and analyzed using Spearman rank correlation, Mann–Whitney U, and Kruskal–Wallis H tests. Qualitative data were gathered through semi-structured interviews with fifty parents and fifty teachers to obtain deeper insights into students' exam experiences and analyzed using Braun and Clarke's (2006) Eight-step thematic analysis framework. The findings indicate that students are exposed to significant psychological pressures, including heavy academic workload, extensive participation in private tuition, high parental expectations, peer comparison, and reduced opportunities for play and rest. These factors contribute to increased psychological stress and negatively influence students' self-esteem. While gender does not show a significant influence, differences are observed across school types, with students from better-resourced schools demonstrating relatively higher self-esteem. The results of the analysis indicate a statistically significant and strong negative correlation between psychosocial factors and self-esteem. The study concludes that the Grade 5 Scholarship Examination functions as a major psychological stressor that affects students' self-esteem. It is recommended that educational policies adopt child-centred assessment approaches, strengthen school-based psychosocial support systems, and promote greater awareness among parents and teachers regarding balanced academic expectations to support children's overall well-being.

Keywords: *grade 5 scholarship examination, psychosocial factors, self-esteem, primary education*

INTRODUCTION

The Grade 5 Scholarship Examination has become one of the most influential educational assessments in Sri Lanka. Originally introduced to promote educational equity by providing opportunities for academically talented children from disadvantaged backgrounds, the examination has gradually evolved into a highly competitive national event shaped by social

mobility aspirations and family expectations (Aturupane et al., 2013). In practice, preparation for the examination often begins at an early stage and involves extensive private tuition, prolonged study hours, and continuous parental supervision. For children in middle childhood (approximately 9–10 years), this creates a highly structured psychosocial environment in which academic performance, rankings, and perceived ability become central to their self-evaluation. During this developmental stage, self-esteem becomes increasingly dependent on external feedback from parents, teachers, and peers. While positive academic experiences may foster a sense of competence, persistent pressure, comparison, and fear of failure may lead to reduced confidence and feelings of inferiority (Harter, 2012; Orth & Robins, 2014).

Despite the equity-oriented intentions of the examination, growing evidence suggests that it generates significant psychological stress among young learners. The expansion of tuition culture, increased parental expectations, and the competitive nature of the examination system have reshaped children's daily lives, often reducing opportunities for play, rest, and social interaction. Such conditions raise important concerns regarding the impact of examination-related psychosocial factors on children's emotional well-being, particularly their self-esteem. However, existing research in Sri Lanka has largely focused on academic performance, examination outcomes, and tuition practices, with comparatively limited attention given to self-esteem as a psychosocial outcome. This represents a significant research gap, particularly given that self-esteem plays a crucial role in children's motivation, emotional resilience, and long-term psychological development. Therefore, the central research problem addressed in this study is to examine how psychosocial factors associated with the Grade 5 Scholarship Examination influence the self-esteem of primary school children.

This study adopts both a theoretical and empirical approach to address this problem. It is grounded in Erikson's theory of Industry versus Inferiority, which explains how children develop a sense of competence through achievement, and Bronfenbrenner's Ecological Systems Theory, which highlights the influence of family, school, and societal contexts on child development. By integrating quantitative data from students with qualitative insights from parents and teachers, this study provides a comprehensive understanding of how examination-related pressures shape children's self-esteem.

Based on the research problem outlined above, the study aims to achieve the following objectives:

1. To identify the psychosocial factors associated with the Grade 5 Scholarship Examination that affect students' self-esteem.
2. To examine the impact of psychosocial factors on the self-esteem of Grade 5 students.
3. To determine the existing levels of self-esteem among Grade 5 students.
4. To examine the influence of demographic factors (gender and school type) on the relationship between psychosocial factors and students' self-esteem.
5. To explore parents' and teachers' perceptions of the psychosocial issues arising from the Grade 5 Scholarship Examination and their effects on students' self-esteem.

LITERATURE REVIEW

SELF-ESTEEM IN MIDDLE CHILDHOOD

Self-esteem is generally understood as the overall judgment a person makes about their own worth and competence. It is not an inborn characteristic, but a developmental outcome shaped through experience, particularly in childhood when children are more likely to compare themselves with others and to interpret feedback as a sign of being valued or not (Rosenberg, 1965; Coopersmith, 1967). During middle childhood, self-esteem is strongly associated with the sense of industriousness, social acceptance, and competence in activities that are valued.

School, family, and peer contexts are therefore of particular importance as sources of emotional support or distress.

The literature consistently indicates that academic pressure and high-stakes conditions may undermine children's self-esteem. Repeated testing, public comparison, and competitive ranking in schools can lead children to make academic performance the primary source of their self-worth. Pullmann and Allik (2008) and Joshi (2009) found that children who perceive themselves as less successful academically tend to report lower global self-esteem and higher levels of emotional strain. Similarly, studies grounded in family systems theory demonstrate that anxiety, self-doubt, and negative self-assessments are associated with excessive parental expectations and conditional approval (Rohner and Lansford, 2017; Peng et al., 2021).

ACADEMIC PRESSURE, EXAMINATION CULTURE, AND PSYCHOSOCIAL FACTORS

Sri Lankan studies provide valuable contextual insights. Research on the Grade 5 Scholarship Examination reveals that tuition culture, parental pressure, and examination-based schedules reduce children's time for play and peer interaction, and increase fear of failure and emotional exhaustion (Irfana, 2014; Keembiyahetti, 2023). Teacher practices also have a significant impact: constructive feedback and a positive classroom atmosphere can strengthen self-esteem, whereas comparison-based practices may intensify feelings of inferiority (Priyadarshani & Senarath, 2021). These findings indicate that Grade 5 students develop their self-esteem through the combined influence of family, school, and examination culture, rather than through any single isolated factor.

A notable gap in the existing literature is also addressed by the current study. A large portion of Sri Lankan research on the Grade 5 Scholarship Examination has focused on examination performance, tuition practices, or academic stress, with comparatively little attention given to self-esteem as a psychosocial outcome. The present study addresses this gap by directly measuring students' self-esteem and examining its relationship to their examination-related experiences, thereby contributing a more developmental perspective to the field.

THEORETICAL FRAMEWORK

Erikson's Psychosocial Development Theory (1968), particularly the stage of Industry versus Inferiority, explains how children in middle childhood develop self-esteem through achievement and social feedback. During this stage, children are highly influenced by parents, teachers, and peers, and excessive pressure or comparison may lead to feelings of inferiority. Similarly, Bronfenbrenner's Ecological Systems Theory (1979) highlights how development is shaped by interactions within family, school, and society. Together, these theories provide a framework for understanding how psychosocial factors related to the Grade 5 Scholarship Examination influence students' self-esteem.

METHODOLOGY

An explanatory sequential mixed-method and stratified random sampling design was adopted in this study to identify three hundred and twenty male and female (160 males and 160 females) Grade 5 students selected through 1AB, 1C, Type 2, and Type 3 government schools in four divisions named Kaduwela, Kolonnawa, Maharagama, and Nugegoda in the Sri Jayawardenapura Education Zone. The sample was gender-balanced and reflecting variations in resource availability, academic opportunities, and institutional contexts.

The primary quantitative data collection instruments included a printed questionnaire containing the Coopersmith Self-Esteem Inventory (CSEI) school form and a

self-developed psychosocial questionnaire. The Coopersmith Self-Esteem Inventory is a standardized and widely validated instrument used to measure self-esteem and was administered in an appropriate form for Grade 5 students, with scoring conducted according to established guidelines. The scale consisted of 25 self-reported items. Each item was answered on a two-point scale ‘like me’ (1) and ‘unlike me’ (0). Reliability and validity for this study was ($\alpha = 0.87$).

The psychosocial questionnaire was developed by the researcher based on key factors identified in the literature, including parental expectations, academic pressure, tuition involvement, peer comparison, and emotional and physical difficulties. The instrument consisted of structured 15 items measured using a five-point Likert scale ranging from “strongly agree” to “strongly disagree” response format, and total scores were calculated to identify the major psychosocial factors experienced by students.

Semi structured interviews were also conducted with fifty parents and fifty teachers using purposive sampling: allowing for an in-depth exploration of their experiences and perceptions and the data were thematically analyzed in a eight-step framework introduced by Braun and Clarke (2016). This approach was particularly appropriate for the present study, as it integrates numerical evidence with contextual understanding, thereby enhancing the validity, depth, and overall explanatory power of the research findings.

Due to nonnormality of the distribution and ordinality of the psychosocial data, the non-parametric tests were utilized: Spearman rank-order correlation was utilized to determine the relationship between psychosocial factors and self-esteem, Mann-Whitney U test was utilized to compare the boys and girls, and Kruskal-Wallis H test was utilized to compare the school types.

Table 1

Study sample and analytic approach

Component	Details	Purpose
Quantitative sample	320 grade 5 students	Measure self-esteem and psychosocial factors
Qualitative sample	50 parents and 50 teachers	Explain lived psychosocial experiences
Measures	Csei; psychosocial questionnaire	Collect comparable student level data
Analysis	Spearman, mann-whitney U, kruskal-wallis, thematic analysis	Examine relationships and meanings

The selected design was appropriate because it allowed the study to capture both measurable patterns and the social meanings behind those patterns. Quantitative analysis identified relationships and differences, while qualitative analysis explained how parents and teachers interpreted the emotional costs of the examination. The design also supported triangulation across instruments, which strengthened the credibility of the findings.

Informed consent was obtained from the participants and their parents and permission was obtained from the school authorities as part of the study process. Because the participants were children, the data collection process was designed to be simple, child-friendly, and respectful of their age and school routines. Ethical clearance was approved by the faculty research committee of the Faculty of Education.

RESULTS

RELIABILITY OF RESEARCH INSTRUMENTS

Prior to the main analysis, the reliability of the research instruments was assessed to ensure internal consistency. The researcher-developed psychosocial questionnaire, consisting of 15 Likert-scale items, yielded a Cronbach's alpha of .820, indicating good reliability and confirming that the instrument consistently measured psychosocial factors related to the Grade 5 Scholarship Examination. The CSEI, used to measure students' self-esteem, is a standardized instrument with previously established reliability ($\alpha = .80-.90$; Coopersmith, 2002) and was therefore considered appropriate without further reliability testing.

PSYCHOSOCIAL FACTORS ASSOCIATED WITH THE GRADE 5 SCHOLARSHIP EXAMINATION

Descriptive statistical analysis revealed that students are highly engaged in an examination-oriented routine. A significant majority (87%) of students attended private tuition classes, while 62% reported studying for 6–8 hours daily in addition to regular school hours. Many students also experienced long commuting times and limited access to a quiet study environment. These findings indicate that students' daily routines are heavily structured around examination preparation, reducing opportunities for leisure, rest, and social interaction that are essential for healthy psychosocial development.

A Relative Importance Index (RII) analysis was conducted to identify and rank the psychosocial factors influencing students' self-esteem. RII values ranged from .558 to .664, indicating varying levels of influence. The most influential factors were demanding school routines (RII = .664), fear of disappointing parents (RII = .655), and emotional exhaustion due to continuous studying (RII = .644). Other significant factors included reduced leisure time (RII = .638), sleep disturbances caused by examination-related stress (RII = .634), and peer comparison (RII = .633). In contrast, factors related to social support (RII = .572) and self-belief (RII = .558) were ranked lower, suggesting that external pressures exert a stronger influence on students than internal coping mechanisms. Overall, the RII findings indicate that academic workload, parental expectations, and emotional stress are the most dominant psychosocial factors affecting students' self-esteem.

Table 2

Ranking of Psychosocial Factors Based on Relative Importance Index (RII)

Code	Item	F1	F2	F3	F4	F5	RII	Rank
P1	Opinion about the school routine these days	47	52	66	62	93	.664	1
P2	Reluctance to play with friends due to studying	56	54	61	71	78	.638	4
P3	Stopped hobbies (drawing, sports, music) to study	54	55	74	67	70	.628	7
P4	Difficulty sleeping due to thinking about the exam	49	64	71	55	81	.634	5
P5	Loss of appetite when thinking about the exam	63	62	60	57	78	.616	10
P6	Feeling tired or sad while studying for the exam	58	59	62	63	78	.628	7
P7	Has someone to talk to when feeling stressed	72	72	60	61	55	.572	13
P8	Feeling tired/unhappy most days due to studying	41	69	67	65	78	.644	3
P9	Belief in learning and happiness even without passing	76	75	56	66	47	.558	15

P10	Confidence in doing well in the examination	77	68	70	50	55	.561	14
P11	Nervousness when the teacher discusses results	56	68	69	56	71	.611	12
P12	Worry about disappointing parents	47	61	58	65	89	.655	2
P13	Attending many tuition classes because of the exam	63	62	53	60	82	.623	9
P14	Feeling the need to study more because peers do	56	63	51	73	77	.633	6
P15	Worry about losing friends over poor marks	59	66	61	60	74	.615	11

Note. F1–F5 = response frequencies across the five-point scale (from 'strongly disagree' to 'strongly agree'); RII = Relative Importance Index.

IMPACT OF PSYCHOSOCIAL FACTORS ON STUDENTS' SELF-ESTEEM

Spearman's rank-order correlation revealed a strong and statistically significant negative relationship between psychosocial factors and self-esteem ($r_s = -.613$, $p < .001$), indicating that higher levels of psychosocial pressure are associated with lower levels of self-esteem among students.

Table 3

Correlation Between Psychosocial Factors and Self-Esteem (Spearman's rho)

		Psychosocial Level	CSEI Level
Psychosocial Level	Correlation Coefficient	1.000	-.613**
	Sig. (2-tailed)	—	.000
	N	320	320
CSEI Level	Correlation Coefficient	-.613**	1.000
	Sig. (2-tailed)	.000	—
	N	320	320

*Note. **Correlation is significant at the 0.01 level (2-tailed).*

LEVELS OF SELF-ESTEEM AMONG GRADE 5 STUDENTS

The distribution of self-esteem levels, measured using the CSEI, showed that 30.6% ($n = 98$) of students had low self-esteem, 22.5% ($n = 72$) had moderate self-esteem, and 46.9% ($n = 150$) had high self-esteem. Although nearly half of the students demonstrated high self-esteem, a considerable proportion (53.1%) fell within the low-to-moderate range, indicating potential psychological vulnerability among a substantial segment of the sample.

Table 4

Distribution of Self-Esteem Levels Among Grade 5 Students ($N = 320$)

Self-Esteem Level	n	%
Low	98	30.6%
Moderate	72	22.5%
High	150	46.9%

INFLUENCE OF DEMOGRAPHIC FACTORS ON SELF-ESTEEM

The Mann–Whitney U test was employed to determine whether there were statistically significant differences in the study variables based on gender and school type.

Table 5

Mann–Whitney U Test Ranks for Gender Differences (N = 320)

Variable	Gender	N	Mean Rank	Sum of Ranks
Psychosocial Level	Male	160	158.58	25373.00
	Female	160	162.42	25987.00
CSEI Level	Male	160	163.90	26224.50
	Female	160	157.10	25135.50

Table 5 presents the mean ranks and sum of ranks for psychosocial level and self-esteem (CSEI level) according to gender. For psychosocial level, male students obtained a mean rank of 158.58, while female students obtained a slightly higher mean rank of 162.42. For CSEI level, male students had a mean rank of 163.90, compared with 157.10 for female students. Although these mean ranks indicate small differences between male and female students, statistical significance must be determined using the Mann–Whitney U test results presented in Table 6.

Table 6

Test Statistics for Mann–Whitney U Test (Grouping Variable: Gender)

Statistic	Psychosocial Level	CSEI Level
Mann–Whitney U	12493.000	12255.500
Wilcoxon W	25373.000	25135.500
Z	-.401	-.704
Asymp. Sig. (2-tailed)	.689	.481

Table 6 shows the Mann–Whitney U test results for differences between male and female students. The results indicate that there was no statistically significant difference in psychosocial level between male and female students ($U = 12,493.00$, $Z = -0.401$, $p = .689$). Similarly, no statistically significant difference was found in self-esteem (CSEI level) between male and female students ($U = 12,255.50$, $Z = -0.704$, $p = .481$).

Since both p-values are greater than the .05 significance level, the null hypothesis of no gender difference is retained. Therefore, gender did not significantly influence either psychosocial level or self-esteem among the students in this study. Although the mean ranks differed slightly between males and females, these differences were not sufficiently large to be considered statistically significant.

Table 7 presents the mean ranks of psychosocial level and self-esteem across the four school types. For psychosocial level, the highest mean rank was observed among Type 3 students (186.72), followed by Type 2 students (185.25), 1C students (148.97), and 1AB students (132.49). This pattern suggests that psychosocial difficulties varied considerably across school types.

Table 7

Kruskal–Wallis Test Ranks for School Type Differences (N = 320)

Variable	School Type	N	Mean Rank
Psychosocial Level	1AB	90	132.49
	1C	90	148.97
	Type 2	76	185.25
	Type 3	64	186.72
CSEI Level	1AB	90	194.58
	1C	90	169.63
	Type 2	76	141.06

Type 3	64	122.82
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For self-esteem (CSEI level), 1AB students recorded the highest mean rank (194.58), followed by 1C students (169.63), Type 2 students (141.06), and Type 3 students (122.82). The higher mean ranks indicate relatively higher self-esteem scores among students in 1AB and 1C schools compared with those in Type 2 and Type 3 schools. However, the statistical significance of these differences should be interpreted using the Kruskal–Wallis test results presented in Table 8.

Table 8

Test Statistics for Kruskal–Wallis Test (Grouping Variable: School Type)

Statistic	Psychosocial Level	CSEI Level
Kruskal–Wallis H	23.604	30.995
df	3	3
Asymp. Sig.	.000	.000

Table 8 indicates statistically significant differences in both psychosocial level and self-esteem across the four school types. A significant difference was found in psychosocial level, $H(3) = 23.604$, $p < .001$. Similarly, a statistically significant difference was observed in self-esteem (CSEI level), $H(3) = 30.995$, $p < .001$.

As both p-values are below the .05 significance level, the null hypotheses are rejected. These findings indicate that students' psychosocial experiences and self-esteem differed significantly according to school type. In particular, the differences in CSEI mean ranks shown in Table 7 suggest that students from 1AB schools had comparatively higher self-esteem, whereas students from Type 3 schools had comparatively lower self-esteem. However, the Kruskal–Wallis test only establishes that at least one school type differs significantly from another. Post-hoc pairwise comparisons would be required to determine exactly which school types differ significantly from each other.

Table 9

Summary of Key Quantitative Findings

Area	Variables Examined	Statistical Test	Key Results
Psychosocial factor ranking	15 questionnaire items	RII analysis	Highest: routine (.664), parental pressure (.655)
Relationship with self-esteem	Psychosocial level & CSEI	Spearman's correlation	$r_s = -.613$, $p < .001$
Self-esteem distribution	CSEI categories	Descriptive statistics	Low: 30.6%, Moderate: 22.5%, High: 46.9%
Gender differences	Gender & self-esteem	Mann–Whitney U	$p = .481$ (not significant)
School type differences	School type & self-esteem	Kruskal–Wallis H	$p < .001$ (significant)

Table 9 summarises the major quantitative findings of the study. The Relative Importance Index (RII) identified routine-related factors (.664) and parental pressure (.655) as the most prominent psychosocial factors among the 15 questionnaire items. Furthermore, Spearman's rank-order correlation revealed a statistically significant and relatively strong negative relationship between psychosocial level and self-esteem ($r_s = -.613$, $p < .001$),

indicating that higher levels of psychosocial difficulties were associated with lower levels of self-esteem.

The distribution of CSEI scores showed that 46.9% of students had high self-esteem, 22.5% had moderate self-esteem, and 30.6% had low self-esteem. Regarding demographic differences, gender was not significantly associated with self-esteem (Mann–Whitney U, $p = .481$). In contrast, school type was significantly associated with self-esteem (Kruskal–Wallis H, $p < .001$). Overall, the findings suggest that school context may play a more significant role than gender in explaining differences in students' self-esteem.

PARENTS' AND TEACHERS' PERCEPTIONS OF PSYCHOSOCIAL ISSUES

The qualitative findings further supported and explained the quantitative results. Parents described daily routines dominated by tuition classes and structured study schedules, while teachers observed increased fatigue, anxiety, and reduced classroom participation among students. Key themes included exam-centred routines, emotional stress and anxiety, parental expectations, peer comparison, and reduced recreational activities. A notable difference was observed between parents' and teachers' perspectives: parents often viewed examination preparation as necessary for future success, whereas teachers emphasized its negative impact on students' emotional well-being and confidence. This contrast highlights how the examination is perceived differently by adults but experienced as a source of pressure by children.

The findings demonstrate that psychosocial pressure is a significant factor influencing students' self-esteem. The results indicate that self-esteem among Grade 5 students is shaped by the combined influence of academic demands, parental expectations, peer competition, and school context, with external environmental factors playing a dominant role. The qualitative analysis of parent responses revealed eight major themes related to the impact of the Grade 5 examination on children, families, and parental experiences as following table 10.

Table 10

Parent responses

QN	Parent Responses	Initial Codes	Final Themes
1	“Before this exam, my child used to play every evening. Now almost all the time is spent going to tuition or studying at home.” “Our daily routine has completely changed. Everything revolves around study schedules and tuition classes.”	Reduced playtime; increased tuition	Theme1: Routine and Lifestyle Adjustments
2	“I feel very stressed thinking about this exam. I worry what will happen if my child does not pass.” “Sometimes my anxiety transfers to my child even when I try not to show it.”	Exam-centred daily routine Parental stress; fear of failure Anxiety transmission	Theme 2 : Emotional Stress and Parental Anxiety

3	“My child has become more irritable and gets upset easily. There are days he refuses to study.” “Sleep has reduced a lot. He wakes up early for tuition and studies late at night.”	Irritability; emotional changes Sleep reduction; fatigue	Theme 3: Behavioral and Emotional Changes
4	“We had to stop extracurricular activities like dancing and sports because there is no time.” “There is hardly any time for family outings or relaxation anymore.”	Reduced recreation time Loss of leisure	Theme 4: Reduction in Recreational Activities
5	“Most of our family conversations are now about marks, tuition, and exam preparation.” “Sometimes discussions become tense when results are not as expected.”	Exam-centered family discussions Family tension	Theme 5: Family Communication Shifts
6	“When my child looks stressed, I try to encourage and calm him down.” “I talk to the class teacher to understand how my child is coping in school.”	Parental emotional support Teacher collaboration	Theme 6: Parental Supportive Interventions
7	“We expect our child to do well because this exam can change their future.” “Society and relatives also ask about the exam results, which increases pressure.”	High academic expectations Societal pressure	Theme 7: Parental Expectations and Exam Pressure
8	“The exam has become too competitive for small children.” “There should be alternative ways to assess children instead of so much pressure at Grade 5.”	Exam complexity Need for reform	Theme 8: Attitudes Toward Examination Reform

Overall, the findings show that psychosocial pressure is not merely an unpleasant aspect of the examination process; it is closely associated with how children see themselves. The results therefore support the view that the interaction of academic demands, adult expectations, peer comparison, and school context shapes self-esteem among Grade 5 students.

DISCUSSION

This study frames the Grade 5 Scholarship Examination as a significant psychosocial phenomenon rather than a mere academic assessment, showing that its associated pressures are deeply linked to children's self-perceptions. The findings align with Erikson's (1968) concept of industry versus inferiority and Harter's (2012) assertion that when self-worth depends entirely on external validation, children become highly vulnerable to feelings of inadequacy. Grounded in Bronfenbrenner's (1979) Ecological Systems Theory, this research confirms that psychosocial stress is a multi-layered product of interconnected influences across family, school, and societal contexts. Specifically, the finding that parental expectations function as a dominant stressor — marked by a prominent fear of disappointing parents (RII = .655) — directly corroborates Irfana and Kanesarajah (2014), who documented that excessive parental monitoring and performance pressure lead to behavioural difficulties, fear, and reduced self-confidence in primary students.

Furthermore, the study illustrates the heavy toll of Sri Lanka's tuition culture. The quantitative data show that 87% of students attend private tuition and 62% study for six to eight hours daily beyond regular school hours. This directly mirrors Keembiyahetti's (2023) findings that prolonged tuition hours and continuous assessment exposure lead to fatigue, stress, and emotional disengagement by stripping children of opportunities for play and rest. This research extends that work by establishing a statistically significant negative relationship between tuition-related pressures and self-esteem ($r_s = -.613$, $p < .001$). Qualitatively, the results align with Priyadarshani and Senarath (2021), confirming that a competitive classroom environment and performance-comparison practices intensify student anxiety, fatigue, and feelings of inadequacy, underscoring the need to move toward supportive, mastery-oriented instructional settings.

Structurally, the study reveals that resource disparities within the school system translate directly into unequal psychological outcomes. The Kruskal–Wallis test results, $H(3) = 30.995$, $p < .001$, confirm that students from well-resourced Type 1AB schools exhibit significantly higher self-esteem than those from Type 2 and Type 3 schools. This disparity aligns with Keembiyahetti (2023), illustrating that the examination's psychosocial burden disproportionately impacts socioeconomically disadvantaged children. It also confirms Rohner and Lansford's (2017) view that access to supportive school environments can moderate academic stress. Interestingly, the intensity of this examination culture appears to override the gender-based variations often observed internationally, as no significant gender differences in self-esteem were found. Ultimately, these findings echo the World Health Organization's (2021) call for balanced development during middle childhood, suggesting that structural inequalities and excessive academic demands collectively restructure routines and compromise healthy self-esteem formation among primary school children.

CONCLUSION

This study set out to examine the psychosocial impact of the Grade 5 Scholarship Examination on the self-esteem of primary school students in the Sri Jayawardenapura Education Zone. The psychosocial factors associated with the examination that affect students' self-esteem — the study found that demanding school routines ($RII = .664$), fear of disappointing parents ($RII = .655$), and emotional exhaustion from continuous study ($RII = .644$) were the most influential factors. Academic workload, parental expectations, and emotional stress consistently emerged as the dominant psychosocial pressures shaping students' experiences.

The impact of psychosocial factors on self-esteem — Spearman's rank-order correlation revealed a strong and statistically significant negative relationship ($r_s = -.613$, $p < .001$). This confirms that higher levels of psychosocial pressure are directly associated with lower self-esteem among Grade 5 students, reinforcing the view that the examination functions as a significant psychological stressor. The existing levels of self-esteem — the CSEI results showed that while 46.9% of students had high self-esteem, a substantial proportion (53.1%) fell within the low-to-moderate range. This indicates that a majority of students are psychologically vulnerable during the period of examination preparation, signalling an urgent need for supportive intervention.

The influence of demographic factors — the study found that gender did not produce a statistically significant difference in self-esteem (Mann–Whitney U, $p = .481$), suggesting that examination-related pressures are experienced similarly by boys and girls. The study further demonstrated that school type was a significant factor (Kruskal–Wallis H, $p < .001$), with students from better-resourced schools reporting higher self-esteem. This finding highlights the role of institutional context and resource availability and underscores the need for targeted psychological support in under-resourced environments. Parents' and teachers' perceptions of psychosocial issues — qualitative findings revealed a meaningful contrast. Parents tended to frame examination preparation as a necessary investment in their child's future, while

teachers more readily identified signs of emotional fatigue, withdrawal, and declining confidence in their students. Both perspectives together confirm that the examination environment restructures children's daily lives and interpersonal relationships in ways that undermine their psychological well-being.

Taken together, these findings reinforce the view that the Grade 5 Scholarship Examination functions as a powerful psychosocial influence on children's development. While it serves important educational equity purposes, its associated pressures risk undermining students' self-esteem and overall well-being. It is therefore recommended that educational policy adopt child-centred assessment approaches, strengthen school-based psychosocial support systems, and promote greater awareness among parents and teachers of the importance of balanced academic expectations in supporting children's holistic development.

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