

A Comprehensive Evaluation of a Formal Peer Tutoring and Support Centre in Sri Lankan Higher Education: An Impact Analysis

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Abstract

Peer tutoring has been widely accepted as an effective complement to traditional teaching, enhancing academic performance, fostering collaboration, and accommodating diverse learning needs and gaps. However, in Sri Lanka, peer learning within the higher education sector has remained chiefly informal. This study evaluated the first-ever formal Tutoring and Support Centre (TSC) established in a technological faculty of a state university with the objectives: (1) to understand its impact on students' core subject comprehension, (2) to assess its ability to create an inclusive environment that overcomes language barriers, and (3) to identify key aspects required for the successful establishment of a formal peer tutoring approach within the Sri Lankan higher education sector. This study employed a mixed-methods approach to analyse data collected over an eight-month period, which included tutor availability, session activity logs, and student feedback. The dataset analysed consisted of inputs from 100 undergraduates who were tutees and 36 peer tutors. One hundred one tutoring sessions were conducted, with the focus being on the core subjects of Mathematics, Physics, Programming, and Statistics. The study's outcomes indicated high student satisfaction, with 85.1% of 208 feedback responses rating the sessions 10/10 and 11.5% rating them 9/10. Thematic analysis of qualitative student feedback highlighted the tutors' clarity in explaining complex concepts, the judgment-free environment, and personalised guidance in familiar language as key strengths. The overall analysis further revealed strong and continuous engagement among both tutees and tutors, showcasing the operational feasibility of a formal peer tutoring establishment. While the study primarily measured self-assessed impact rather than objective academic outcomes, the consistently positive responses underscore the centre's potential as a replicable model within Sri Lankan higher education. To ensure long-term sustainability, it is recommended that peer tutoring be embedded into academic calendars, that pedagogical training be provided for tutors, and that dedicated infrastructure be established for tutoring sessions.

Keywords: peer tutoring, peer-assisted learning, higher education, Sri Lanka, student support

Introduction

Peer tutoring, which involves students learning and supporting one another, is widely acknowledged as a valuable complement to traditional teaching worldwide. It enhances academic performance, deepens subject understanding, and fosters a collaborative learning environment (Moumoulidou Et al., 2020). This approach is not intended as a substitute for traditional teaching but rather as a robust complement that can address diverse learning needs and enhance overall educational outcomes (Bogamuwa, 2017).

Despite its widespread international integration, structured peer tutoring and support have not been formally established within Sri Lankan education institutions. While informal peer learning, often colloquially known as 'Kuppi' sessions, has an enduring tradition within local state universities (Kommalage & Thabrew, 2011), these initiatives typically operate without formal oversight. One major challenge in Sri Lankan higher education is the language barrier faced by students transitioning from schooling in Sinhala or Tamil to university education in English. This shift often hinders comprehension of complex academic material, creating significant learning gaps.

This study evaluates a pioneering initiative: a formal Tutoring and Support Centre within a technological faculty at a Sri Lankan state university designed to address these challenges. This initiative aims to transform existing informal practices into a structured and guided environment for peer-led academic assistance. The evaluation leverages an extensive dataset gathered over eight months, encompassing tutor availability and expertise, tutor activity logs, and student feedback. By rigorously analysing these diverse data streams, this study provides empirical evidence supporting the value of a formalised peer tutoring model within the Sri Lankan higher education sector.

Objectives

The objectives of this study were:

1. To evaluate the effectiveness of a structured peer tutoring Centre in enhancing undergraduates' understanding of core subject areas.
2. To assess the program's success in fostering an inclusive and judgment-free environment, including the provision of support in native languages where appropriate, thereby catering to diverse linguistic backgrounds.
3. To comprehensively assess student satisfaction, measure tutor engagement and commitment, and identify key operational insights necessary for the sustainable implementation of a formal peer tutoring model in the Sri Lankan higher education context.

Literature Review

Peer Assisted Learning (PAL) represents a well-established pedagogical strategy that is globally recognised, affirming that knowledge dissemination is significantly enhanced through collaborative interaction among peers. The existing literature in this regard provides an extensive evidence base for the efficacy of formalised peer tutoring programs across a broad spectrum of academic disciplines and educational tiers (Moumoulidou et al., 2020). These programs typically distinguish themselves from informal study groups through their structured frameworks and varying degrees of institutional oversight, resulting in more consistent learning outcomes.

Numerous studies link active participation in peer support to tangible improvements in academic grades, superior performance in examinations, and increased student retention rates, particularly for those struggling with foundational course material (Bandarage et al., 2021). A critical factor contributing to the success of PAL is the approachable and non-intimidating support of peer tutors, even though they are not professional teachers or 'experts' in the subject they teach (Kommilage & Thabrew, 2011). Within the specific higher educational context of Sri Lanka, the need for a structured peer tutoring approach is further reinforced by the academic transition faced by fresh undergraduates, who shift from secondary education, primarily conducted in their native languages (Sinhala or Tamil), to university-level instruction predominantly delivered in English. This study directly addresses these critical needs by providing data-driven insights into the student satisfaction, tutor engagement, and operational dynamics of a formal Tutoring and Support Centre (TSC) implementation.

Methodology

This study employed a mixed-method case study approach to evaluate a pilot implementation of a formal Tutoring and Support Centre (TSC) at the Faculty of Computing and Technology (FCT), University of Kelaniya. Data collection spanned eight consecutive months of operation, integrating both quantitative metrics and qualitative insights to assess the program's effectiveness and feasibility for broader implementation.

This research employed both quantitative metrics and qualitative data to construct a comprehensive understanding of the TSC program's impact and operational feasibility, enabling

the derivation of valuable insights for potential broader implementation across other academic settings. The study successfully engaged over 100 undergraduates who actively participated in the tutoring sessions and provided their valuable feedback. The tutors were selected from second and third-year undergraduates who volunteered their time and expertise. Out of 44 registered volunteers, 36 were carefully chosen based on academic excellence (a minimum of A- or higher in the volunteered subject) and performance on a faculty-conducted assessment. Data collection was systematically executed through three primary instruments:

1. *Tutor Availability and Expertise Survey*, which captured weekly availability (categorised as physical presence, online availability, and after-hours accessibility) alongside subject expertise and language preference.
2. *Tutor Attendance and Session Duration Logs* were captured for each engagement to gain session-level insights, with a total of 101 productive tutoring sessions being recorded.
3. *Structured Post-Session Questionnaires* were utilised to capture the ratings via Likert-scale type questions (rated from 1 to 10) and an open-ended section to elicit detailed qualitative comments. A total of 208 feedback submissions were collected throughout the evaluation period.

The data analysis involved standardising the gathered tutor availability and activity data, converting time durations into consistent numerical formats. Further, tutor identifiers were normalised across datasets to consolidate entries referring to the same individual. Student feedback ratings were analysed using frequency distributions and percentage breakdowns to gauge satisfaction levels. Concurrently, the data derived from the open-ended comments in the student feedback forms were subjected to rigorous thematic analysis to highlight key aspects of the student experience.

Findings

The comprehensive analysis revealed valuable insights into the effectiveness and viability of the formalised peer tutoring Centre.

Expertise and Inclusive Language Support

The tutor registration data systematically confirmed that the volunteer pool possessed a broad spectrum of subject matter expertise, comprehensively covering the core subject areas of Mathematics, Physics, Programming, and Statistics that constituted the primary focus of the TSC. A significant finding of the tutor volunteering and availability was the program's inherent capacity for linguistic inclusivity. Notably, 8 out of 36 selected tutors (22%) were Tamil-speaking, allowing them to support students in their native language. This inclusivity proved essential, as 36 of the 100 tutees sought help in Tamil, highlighting the program's role in addressing language-based learning barriers.

Tutor Engagement Metrics

The program demonstrated remarkable success in mobilising and sustaining a substantial pool of dedicated volunteers. A total of 44 senior students formally registered their availability and willingness to serve as peer tutors. From this broader volunteer base, 36 approved tutors were selected to conduct active tutoring sessions. Over the eight months, tutors logged approximately 150 hours of direct instruction, underscoring their strong dedication and sustained engagement as volunteers.

Tutee Satisfaction and Program Impact

The analysis of student feedback demonstrated an exceptionally high level of satisfaction with the tutoring sessions. Out of the 208 responses, 85.1% (177) rated the sessions a perfect 10/10, and

11.5% (24) rated them 9/10. This reflects strong confidence in the tutoring centre's effectiveness. The remaining small percentage of feedback comprised ratings from 1 to 8. This consistently high level of positive feedback indicates that the majority of students found the tutoring sessions to be highly effective and supportive.

Thematic analysis of open-ended feedback highlighted clarity of explanation, a judgment-free environment, and personalised guidance. Students appreciated the tutors for their ability to articulate complex concepts with unparalleled clarity. This directly addresses the comprehension gaps faced by many students, often due to the English language barrier. The peer-led setting encouraged open dialogue, making students feel comfortable asking questions. Tutors were also commended for their ability to provide individualised attention, meticulously addressing specific student difficulties and offering tailored guidance to navigate challenging concepts. These findings collectively affirm the program's positive impact and its potential as a replicable model in similar academic contexts.

Discussion

As the first empirically evaluated formal peer tutoring initiative within a Sri Lankan university, this study confirms the viability and effectiveness of a structured peer tutoring and support Centre in the local higher education context. The exceptionally high student satisfaction rating, with 85.1% of perfect scores and another 11.5% rated 9/10, underscores the immediate and tangible value perceived by the new undergraduates. These results align with international evidence supporting structured Peer-Assisted Learning (PAL) models (Moumoulidou et al., 2020).

A key notion of this study is the demonstrated linguistic inclusivity. With 22% of tutors offering support in Tamil and over a third of tutees seeking help in Tamil, the program addresses a critical gap in equal education in a multilingual context. Qualitative feedback emphasised the clarity of explanations, comfort in asking questions, and personalised guidance, indicating the program's success in addressing academic challenges, especially those related to the English language barrier.

Operationally, the centre mobilised a committed pool of tutors who contributed approximately 150 hours of direct support, reflecting both the program's sustainability and its appeal to volunteers. The tutor selection process ensured quality, distinguishing this initiative from informal "Kuppi" sessions that lack oversight and consistency. That said, it is essential to clarify that this formal peer tutoring centre is not intended as a substitute for formal instruction, but rather as a valuable complement to existing teaching methods.

While the study provides robust evidence of satisfaction and operational feasibility, it is important to acknowledge certain limitations to ensure transparency. The primary measure of impact was student self-reported satisfaction. While these are critical indicators for student support programs, they do not directly quantify improvements in objective academic performance (e.g., exam scores, GPA). The absence of a control group also means that direct inferences about the program's definitive effect on overall academic outcomes, independent of other factors, cannot be made. Nevertheless, the overwhelmingly positive and consistent qualitative feedback across a significant number of sessions strongly suggests a profound perceived benefit that is highly likely to translate into tangible academic advantages over time.

Conclusions and Recommendations

This pioneering formal peer tutoring and support Centre represents a pivotal advancement for academic support within Sri Lankan higher education. The study clearly demonstrates that a structured, guided, and consistently monitored peer-led learning environment is both feasible and highly effective. It not only improves student comprehension and confidence but also fosters a more inclusive and collaborative academic culture. Building upon these demonstrable successes, it is recommended to:

- Implement pedagogical training programs for peer tutors covering essential skills such as active listening and effective communication strategies.
- Formally embed the peer tutoring into the broader academic calendar to reinforce its value and encourage participation.
- Provide dedicated infrastructure, ensuring dedicated physical and online learning spaces for tutoring sessions to promote continuity and sustainability.

By implementing these recommendations, universities in Sri Lanka can establish robust, formalised peer tutoring models that not only adhere to international best practices but also address the specific academic and linguistic needs of Sri Lanka's diverse student populations, ultimately contributing to a more supportive and unbiased higher education sector across the nation.

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