

Impact of Student Learning Community on Student Success and Retention

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Abstract

Student success and retention are two of the major challenges in higher education institutions. Student learning communities (SLC), one of the potential solutions for improving student success and retention, have been gaining considerable attention in higher education institutions. The variation in this paper, aimed to provide coordinated support that promoted the development of essential academic and social skills for undergraduate students. We started the first phase of the SLC in our school, which was administered by a group of second-year students across two semesters. The SLC team members were allocated to two working-groups: “Academic enhancement” and “Extra-Curricular”. The academic enhancement group collectively developed learning materials for peer assisted study sessions (PASS). Members of this group were also appointed as teaching assistants for selected first-year modules. They also organised so-called “Buddie-buddy” sessions scheduled to coincide with other activities run by them. The Buddie-buddy sessions intended to aid students preparing for their upcoming assessments. The extra-curricular group designed activities to socially-involve students. They were scheduled in timetable “dead-spots” – between core lectures where students sought opportunities to engage in interesting and beneficial activities on-campus. The results of the survey completed by first-year students indicated that participating in the activities run by the SLC promoted the culture of collaboration and engagement in learning. It had a positive impact on their self-reported outcomes and overall satisfaction within the school. The SLC was also conveyed by students to have furthered their academic success, and the retention of these first years also saw a significant improvement. The confidence, skills and social energy fostered by being a member of the SLC was another profound effect highlighted by the SLC team members.

Keywords: Student Learning Community, Peer Assisted Study Session, Student retention and progression

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Introduction

A higher education is not only beneficial in helping students gain crucial academic and social skills, but also opening doors towards additional job opportunities. In the current competitive job market, a higher education can be the differentiating Sfactor amongst job applicants. With education playing a vital role in peoples' lives, it can be difficult to disregard that student success and retention are prominent challenges in higher education institutions. It is reasonable to suppose that if students fail to perform well during their higher education, they are more inclined to drop out. This trend would then inevitably reduce the number of students completing their higher education with a qualification. Consequently, students are preventing themselves from reaching their full academic potential, closing many of the doors that could have been available to them, and will continue to do so.

To address this problem from a higher-education standpoint, the endeavour was to create a Student Learning Community (SLC), an effort that has been gaining considerable attention amongst higher education institutions and is recognised for improving student success and retention (Thomas et al., 2018; Dagley et al. 2016; Scott et al., 2017).

Thomas and Dagley highlighted their use of course restructuring to aid the improvement of student success and retention in their learning communities. In the course structure of Thomas et al. (2018), a combination of group-based academic work such as group-projects, and compulsory extra-curricular activities such as plays and social events, were incorporated with the aim of strengthening students' social networks and their familiarity with the institute; a means to help students integrate better with the institute. Similarly, the course structure of Dagley et al. (2016) also encompassed a combination of group-based work, social activities, and the use of an academic advisor. Another feature present in this learning community of Dagley et al. (2016) was the practice of a smaller course as a pre-requisite for a harder course, to provide students with sufficient and additional preparation. Graduate Teaching Assistants (GTAs) were also utilised for administering recap sessions and monitoring the progress of students, after which hours for tutoring were allocated if needed.

In stark contrast to the work of Thomas et al. (2018) and Dagley et al. (2016), the work of Scott et al. (2017) did not include any course restructuring, and instead emphasised two key parts of their learning community, an "Academic Boot Camp", which was a 3-hour session designed to help incoming students integrate into a different environment, and hour-long monthly meetings with students to support them during their education. As students would be unfamiliar to the workloads at the institute, the boot camp aimed to help create familiarity with the resources available, whilst also help to create social networks between students (Scott et al., 2017). The camp sought to do so by providing guidance on academic success, describing methods to achieve it, and separating students into groups. The monthly meetings on the other hand, not only diverged from the one-time nature of the boot camp, but each meeting had its own purpose. The first involved peer-mentor-led focus groups to address areas of concern and success in students where students could learn from each other. The second intended to advise students on how their most recent grades would affect their stay at the institution and/or possible repercussions; it was thought that many students would not know how to proceed with less than adequate grades. This meeting also

provided an opportunity for students who did not know how to access their grades online, to check them here. The third and final meeting was intended to aid and encourage students that were near probation or removal from the institution to work harder, as well as provide exam preparation advice.

With our proposed SLC in the School of Informatics at the University of Leicester, the objective was to deliver coordinated support that promoted the development of essential academic and social skills for undergraduate students. The encouragement of academic skills development would foster perseverance in students, promoting student retention and success (Kuh, 2001). As for the development in social skills, this would stimulate the accustoming of students to the university, furthering the prospects of academic success and retention (Kuh, 2001). Dependent on the success of this effort, the school would benefit from greater student engagement and achievement. With further expansion, the methods of this Student Learning Community could be implemented across the university and amongst others to facilitate improved student success and retention. The commencing phase of the SLC was designed for first-year undergraduate students. This was a beneficial starting point, as students that found early studies problematic would struggle to improve the academic and social proficiencies needed for future success in higher education (Kuh, 2001).

The following describes how the SLC was formed in our school, the list of activities performed during the commencing phase of this project, followed by its outcomes and students' feedback.

SLC Team Member Selection and Training Session

For the Student Learning Community (SLC) to have a robust driving force, capable of developing the academic and social skills of first-year students, its establishing members needed to be considered rationally. The most obvious choice was to recruit second-year Informatics students. As they had recently completed their first year, their knowledge on first-year course content would be “fresh”, so to speak. Secondly, their experiences would be crucial in understanding what incoming first-year students would struggle with, and hence would help them devise better approaches for assisting them. Thirdly, having students as SLC members would provide incoming first years with someone they could relate to, which would hope to help build quicker, stronger connections and levels of trust. The two highly favourable factors that went into selecting candidates were their academic performance and class engagement thus far. Another very important set of selection criteria was to have representatives from all gender, ethnic and demographic groups as equality was one of the aims of the SLC.

As the newly recruited second-year students were unaccustomed to utilising the pedagogies of a higher education institute, and unaware of the skills needed to be a successful SLC member, a training session was a necessity. Two additional and equally significant objectives of this session were to assess the abilities of the students to see whether they would be more suited to helping academically-struggling students or designing extra-curricular activities, and to assess the compatibility of the SLC members and how well they work collectively. In such an environment where providing a sense of community to first-year students is important to develop their

academic and social skills, it would pose a significant problem if the SLC members could not collaborate with each other and provide an example for the students. The workshop in question consisted of individual activities spread across a single day. The first activity was targeted at getting the SLC members familiar with each other and involved “ice-breaker” exercises. What followed were three programmes of approximately 90 minutes in length, each addressing fundamental skills to be learnt: “Effective Group Working”, “Designing Extra-Curricular Activities”, and “Teaching Approaches”. Each of these programmes involved an introductory presentation to the respective topic by professors of the institute, followed by a practical individual activity and a group activity to apply their knowledge, and finally a discussion where students reflected on their work and learned valuable insights for self-improvement. The first programme aimed to introduce the SLC team to practices and skills needed for effective teamwork and provided a teamwork model to adapt to when these students took part in the group activities throughout the workshop. The second programme, “Designing Extra-Curricular Activities”, aimed to teach students on the process behind designing engaging activities; something which some of them would be doing as part of the SLC. The third programme, titled “Teaching Approaches”, introduced students to various pedagogies; another thing that some students would be doing as part of the SLC. Through analysing the performance of students in the workshop, the workshop concluded with splitting the SLC members into two working groups: “Academic Enhancement” and “Extra-Curricular”.

Activities Performed by the Academic Enhancement Working Group

The academic enhancement group was tasked with promoting the development of first-year students’ academic skills throughout two semesters. Peer-Assisted Study Sessions (PASS) were introduced as a weekly recapping session conducted by the SLC team members, intended to go over the content taught in that week. Alongside PASS were so-called “Buddie-buddy” sessions, a means for first-year students to prepare for forthcoming exams. These sessions coincided with exam schedules to provide support a few days prior. The sessions themselves involved letting students attempt exam-style questions and presenting techniques to answering specific types of exam questions. The third activity of the academic enhancement group was to support first-year students as Teaching Assistants (TAs) during their timetabled laboratory sessions. All the members of the academic enhancement group partook in this role and were involved in aiding students that were struggling to complete the computer-lab activities assigned to them.

Activities Performed by the Extra-Curricular Working Group

The extra-curricular group in contrast, was assigned the task of designing activities to be run throughout the course of two semesters. These activities hoped to develop the social skills of students and help them build social networks with others from the same course. To increase the likelihood of engagement from first-year students, the activities were purposefully scheduled in timetable “dead spots” – between core lectures. This would be effective in attracting students that were usually searching for engaging and constructive on-campus events during this time away from lectures. The following were some of the activities designed and organised by this working group:

- Fun interactive activities for induction week.
- A programming competition.

- A crossword challenge.

Achievements and Student Feedback

To evaluate the effectiveness of the proposed SLC, we surveyed both first-year students and SLC team members to find out the impact that the SLC had on their learning experiences. As presented in Figure 1, results from a survey of 80 students indicated a significant percentage felt that the activities provided by the academic enhancement group had a positive effect on their learning and success, specifically the PASS and Buddie-buddy sessions. Participants found them useful in satisfying gaps in their knowledge, which they were able to apply in exams to gain marks otherwise unattainable. These results show that the SLC was successful in meeting one of the original aims of this endeavour, which was to improve student success, and gives evidence that the SLC was able to support the development of academic skills (a subobjective).

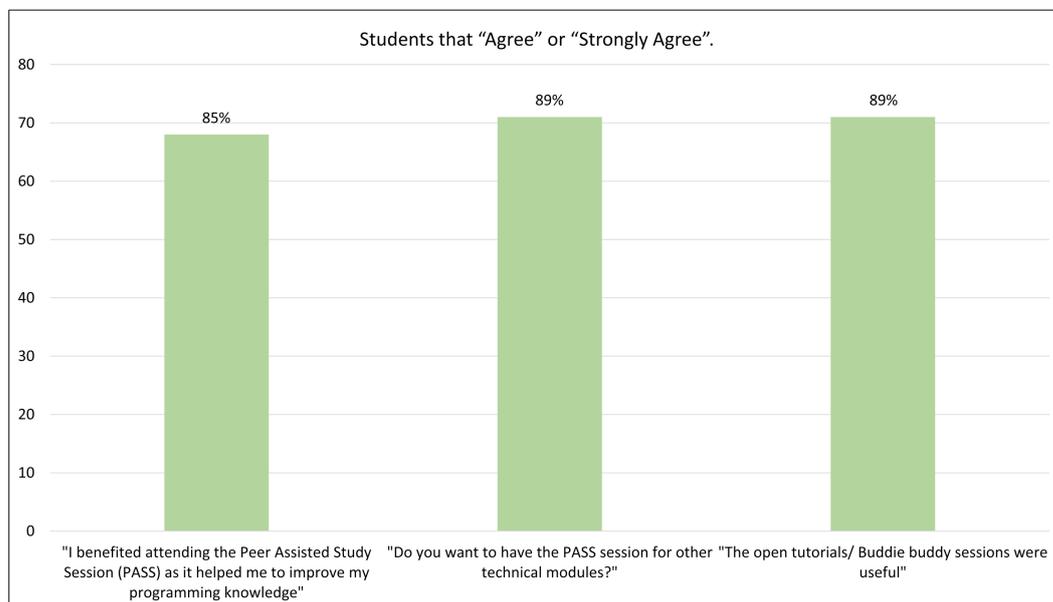


Figure 1: The number of students that answered “Agree” or “Strongly Agree” to the survey.

In reference to the TA positions that the academic enhancement group undertook, students mentioned their appreciation, stating how they benefited from attending the computer-lab sessions because of how effective the TAs were in helping them. This was anticipated from the deliberate recruitment of second-year students to the SLC, in the hopes that they would be able to understand what first years would struggle with, after being “in their shoes” the previous year. Additionally, their strong knowledge on course material would have placed them in a prime position to help struggling students. Similar studies reported that peer teaching and student-to-student mentoring were simple and cost-effective solutions to increase student learning experiences and eventual retention (Boyle et al., 2010; Collings et al., 2014).

84% of the students that completed the survey rated their experience on extra-curricular activities as positive. Common themes expressed by the participants were that the events were influential in building friendships and incorporated a lot of fun

activities, which realise the intended ambitions of having activities which attracted students and helped to build social networks between them. The identified theme of building friendships also supports that the SLC was involved in the betterment of students' social skills (another subobjective).

These results and the informal feedback received from students explained that the SLC helped to create a sort of environment that students could feel a part of. This obviously helped students to become more familiar with the University and to learn more about the community on-campus. This was an outcome shared in the work of Thomas et al. (2018) and Dagley et al. (2016), where students also expressed their positivity over feeling a part of a community. In relation to how the students related well with the SLC members, it is perfectly plausible because of how the SLC members were students just like the first-year students (an outcome which was originally hoped for). And it could have been this factor which encouraged better engagement and friendships between the first years and the SLC.

Given the student feedback, it is clear that the use of second-year students for the SLC played a key role in aiding first years in their studies. Aside from the positive feedback, the second-year students were capable and responsible for organising themselves and ensuring the first years benefitted from their actions. And these results present the benefits of having students take responsibility in learning communities and contributes a better understanding of what can come from involving students in their own education.

Feedback from the SLC team members

From the SLC members who completed the questionnaire, all of them reached the consensus that being a part of the SLC had been a positive experience, with many quoting the word "amazing". The reasons behind such a positive involvement shared many similarities between members listed below:

- Increased confidence in public speaking.
- The development of useful skills such as leadership, organisation, event planning.
- The enjoyment of teamwork.

Although the learning community of this paper was intended for improving the success and retention amongst first-year students, the involvement was evidently also beneficial for the second-year students. It could be interpreted that because of the positivity that these SLC members had towards the learning community, it reflected in the work they did and led to a better quality of help towards struggling first-year students.

This study and the feedback from both SLC members and the students attending the activities ran by SLC members, describe how well the SLC project managed to reduce the attainment gap for first-year and partly second-year students at the School of Informatics. The success of the SLC also resulted in a significant improvement in continuation. The percentage of first-year students who did not proceed to the second year had dropped significantly to only 2.75%. This figure shows that the SLC was successful in meeting the second of the original aims of this endeavour, which was to improve student retention. This also closely aligns with the work of Dagley et al.

(2016), Scott et al. (2017) and Thomas et al. (2018) which all showed improved retention rates from their learning community applications.

Conclusion

The student learning community in this paper set out to improve the success and retention of undergraduate first-year computer science students. Like many studies reported in the literature, a significant number of students expressed that the SLC had a positive effect on their learning; students reflected on how gaps in their knowledge were addressed, enabling further success in exams. Alongside this success, also came a considerable improvement in the overall retention rate of students.

The positive outcomes brought on by the SLC in this paper were not only restricted to the initial aims of improving student success and retention, but also proved beneficial for the second-year students involved in managing the SLC, such as helping them to develop useful skills. Feedback from surveys indicated that the academic and extra-curricular activities designed by the SLC improved the academic and social skills of first-year students, whilst also providing a sense of community for them. This paper contributes a successful variation of a student learning community and offers activities that, when combined, have been fruitful in showing improvements in student success and retention. However, it is important to note that the success cannot be attributed to just one specific activity/activities, but rather a combination of them all, and other factors like student engagement and the enthusiasm of the SLC team members.

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