

CASE STUDY

Development of a Course Community

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Abstract

There are feelings of belonging amongst those involved with the mathematics course at Sheffield Hallam University. A number of factors contribute to this, including the use of year tutors, a peer assisted learning scheme, a shared working space, a Maths Arcade, an induction week programme, a final year de-stress day, and other social events. In addition to communication with peers in their own year group, interactions with staff and students in other year groups are encouraged. The students are given opportunities to form friendship groups, which has a large impact on their university experience. The desire from staff to work alongside students and support activities has resulted in students feeling part of a community.

Keywords: Course community, belonging, student support, partnership.

1. Introduction

McMillan and Chavid (1986) define the “*sense of community*” as being “*a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members’ needs will be met through their commitment to be together*” (originally from (McMillan, 1976)). A main aim on the mathematics course at Sheffield Hallam University is to make the students feel at home and give them a sense of belonging. As stated by Thomas (2012), there is “*powerful evidence of the importance of student engagement and belonging to improve student retention and success.*” Zhao and Kuh (2004) present that a learning community is an “*effective educational practice*”, with benefits including improved student success and increased satisfaction. This is also indicated by Rovai (2002) who states that “*one strategy to help increase retention is to provide students with increased affective support by promoting a sense of community*”.

It is believed that a community has not been fostered through just a single initiative, but it is thought that a combination of factors have contributed to its development. These include having year tutors and academic tutors to be main contacts and who get to know the students, as well as there being support from other staff. A peer assisted learning (PAL) scheme results in the formation of peer support groups and initiates inter-year communication. Having a shared learning space means that staff and students from all year groups work alongside each other, and encourages further interaction. Running the Maths Arcade adds to this as students are able to use the space to play strategy games with each other and staff. Identified as a key week, an intensive induction week programme is run. This introduces the first year students to staff, their PAL group, their PAL leader and the Maths Arcade. Other social events, such as final year de-stress days, Rubik's cube championships, quizzes, and film nights have also given staff and students the chance to spend time with each other outside formal teaching time. An important element is the willingness of staff to work with students, particularly taking an interest in each individual, having an open door policy, and contributing to events.

There is evidence to suggest that the approaches are successful. It was found that 86.8% of final year students who filled in a survey in a lecture in 2014-15 said that they “*felt part of a mathematics community*” (Cornock, 2016). Evaluation for different activities will be given throughout this case study.

2. Personal support and year tutors

The staff who teach on the course are very student focussed. When asked what drives them in their job, one member of staff said the desire to provide *"a secure environment in which both staff and students are able to grow and develop their professional practices"*. When asked about the key priority in their job, a member of staff said that it was *"the students, both their overall education but also their well-being"* and another said it was *"providing a positive learning experience for students"*. There are approximately 28 members of staff attached to the course and typically 100 students in each year group. The group is keen to limit student numbers to make it possible for staff to get to know the students.

A great deal of personal support is provided to the students in addition to the usual university support services. The students have a year tutor who acts as a main contact for all the students in a year group. Students tend to get drop-in support from their year tutor as they make themselves the most visible to that group of students. In 2015-16, a survey was carried out with 29 of the 66 final year students. They were asked how their year tutors had supported them. They indicated that year tutors do the following as part of their role:

- Help with future plans;
- Provide encouragement and motivation;
- Provide general help and support;
- Make themselves available for chats;
- Check the students are ok;
- Provide advice regarding the course;
- Take time to get to know everyone;
- Provide lots of reminder emails;
- Help students settle into university life;
- Provide information of opportunities;
- Provide strategies to approach work;
- Collect feedback;
- Answer questions.

General comments made by the students about year tutors included:

"It's great having a first port of call! Like a safety net."

"It is good to know that there is someone to talk to if you have any issues."

Having a year tutor makes a big difference to some students on the course as indicated by the following remarks:

"The support I have received during difficult times has been brilliant and helped me progress in the course. Without this, I believe I wouldn't have come this far."

"Would not have coped as well with personal issues without them."

"I could potentially be on another course had I not spoken to my first year tutor."

Students also have an academic supervisor, with each member of staff supervising fewer than 10 students in each year group. Students and their academic supervisor meet for a one-to-one meeting at least once a semester. The course already had year tutors before the university introduced academic supervisors, so the addition gave the students another point of contact. The students also have the option of seeing their student support officer, who is not an academic.

The students were asked what forms of personal support they had used whilst at university. Figure 1 shows the responses. A very large proportion of the students indicated that they had received support from their year tutor. A lot had received support from their academic supervisor and other members of staff, but in comparison very few of the students had received support from services outside the group.

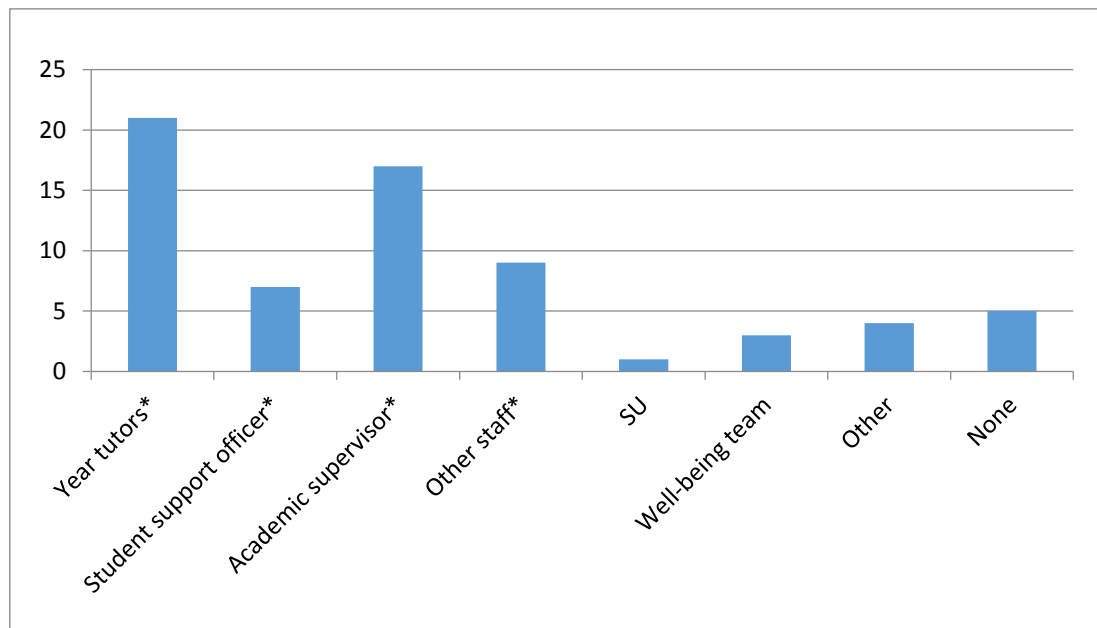


Figure 1: Personal support used whilst at university (*based within the maths team)

The students were also asked where they usually went for help first. These results are displayed in Figure 2. It can be seen that year tutors and other members of staff play a large role when it comes to personal support. It was found that 65.5% of the students surveyed indicated that they would usually go to a member of staff within the group as their first point of call for help, with 37.9% of the students saying they would usually go to their year tutor first.

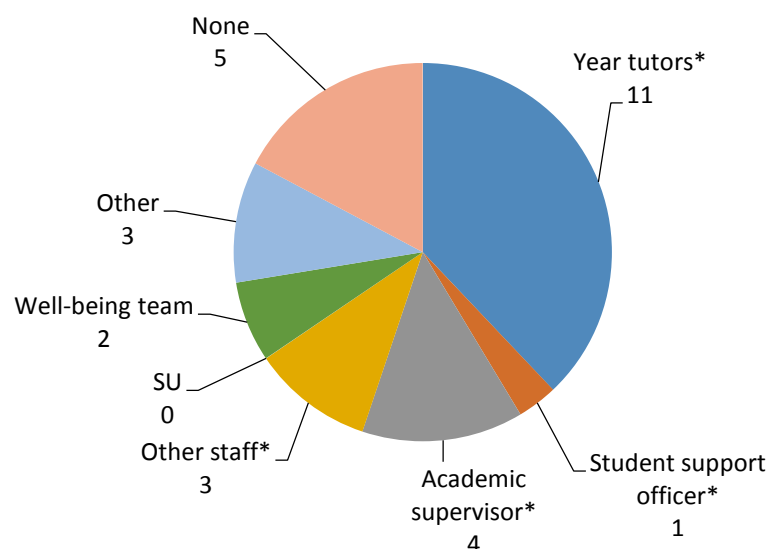


Figure 2: Where students usually go first when needing personal support (*based within the maths team)

3. Peer assisted learning scheme

Having a peer assisted learning scheme has a large impact on the students on the course. As presented within Waldock (2011) and Cornock (2016), the scheme consists of groups of first year students being supported by pairs of students further on in their studies. Group work fosters “*feelings of belonging to a community of learners of mathematics*” in general (Challis, 2015), so the group work itself plays an important role. Through peer-led academic learning “*partnership is built between students, peer leaders [and] staff*” (Keenan, 2014). The PAL scheme encourages students to communicate and work together, both within support groups and between year groups.



Figure 3: Images of the peer assisted learning scheme

The importance of the scheme is reflected in how the timetable is now arranged around the peer assisted learning scheme to maximise involvement and make it easier for everyone. Initial consequences include the students having a support group from their first day on the course, and inter-year communications. The advantages of the scheme extended far beyond the scheme itself as these friendships often continue and groups tend to stick together in classes. As presented by Keenan (2014), students taking part in peer-led sessions “*experience easier transition in HE with greater belonging and participation*”, and “*build community cohesion*”.

During an evaluation in 2014-15 in Cornock (2016), it was found that students were generally very positive about the scheme. A large theme that emerged in the evaluation was how it gave the students a group of friends. Some students said that they would have found it difficult to make friends without the scheme and that it gave them peers to talk to from the start. The students liked how PAL gave them a support group for all parts of the course and outside university, and how easy it was to meet people in this way. The PAL leaders and first year students commented about how they enjoyed working with each other.

4. Working environment

As discussed by Waldock (2015) and Waldock et al. (2016), students on the course have a place to work which is alongside staff offices. A floor plan is given in Figure 5. This includes lots of working spaces, group tables, and meeting rooms.

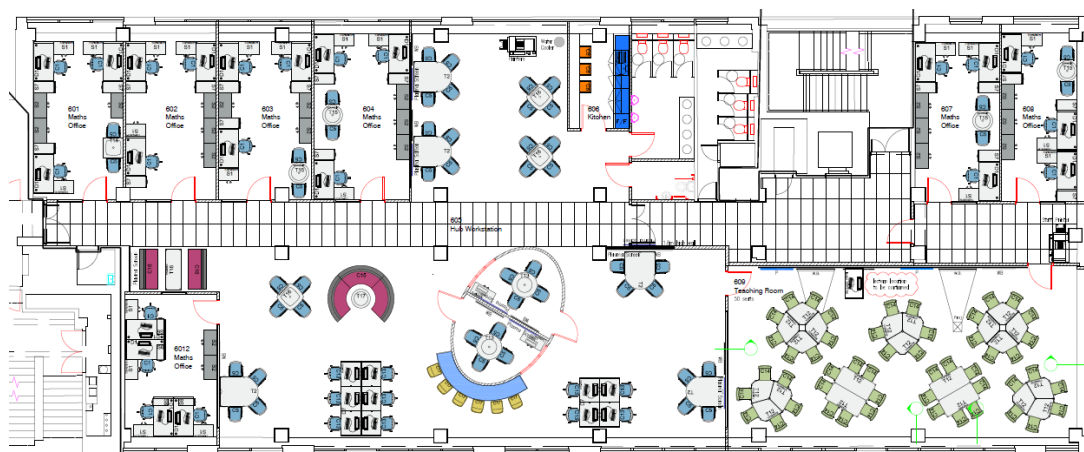


Figure 5: Floor plan of maths space (Waldock et al., 2016)

As presented by Waldock et al. (2016), the working space gives the students a home, a feeling of belonging, and promotes students working together. In the research, it was found that there was a strong indication that *"increased accessibility of both staff and other students has contributed to the students feeling like they are part of a mathematical community"*. Student comments, as presented by Waldock et al. (2016), included the following:

"Having such a wealth of knowledge just a knock away is brilliant – it is so much easier to approach staff than previously."

"Having a home for the discipline makes the maths department seem more united."

"As the area is purely maths it is easier to find someone who also studies a module you do and promotes students to help one another and interact."

"Really like this idea, it's made everything generally a better atmosphere rather than being lost within the uni not having a home."

"Its spacious design has led to a great social atmosphere as well as providing excellent study facilities. Intermingling between year groups has also been created and the extra interaction between student and staff will no doubtably aid in the provision of work and assignments."

5. Maths Arcade

Following on from the success of the original Maths Arcade at the University of Greenwich (Bradshaw, 2011), Maths Arcades were rolled out to several other universities (Bradshaw and Rowlett, 2012). Initial information about the Maths Arcade at Sheffield Hallam University was provided by Cornock and Baxter (2012). One of the main aims was to add to the development of a mathematics community. The Maths Arcade now runs all day on one day during the week in the open access area, so staff and students can come and go as they please. Gaps are built in the timetable to ensure that students have the opportunity to take part. As presented by Cornock (2015), *“the Maths Arcade is enjoyed by students in all the year groups”*. Also presented in the paper, the evaluation in 2014-15 showed that it helped students to make friends, they got to know staff better, and inter-year interactions increased. In the evaluation student comments included that the space *“creates more of a mathematical community”*, that its *“spacious design has led to a great social atmosphere”* and that it brings a *“sense of ‘home’”*. Staff comments included that it *“gives everybody a nice feeling of community and partnership”*, that it creates a *“good atmosphere amongst all maths students of different years”*, and that staff *“can easily say a quick hello to students as [they] walk through”*.



Figure 6: The Maths Arcade

6. Induction week programme

As the first part of a degree programme is so important, an extensive induction week programme is run. The initial time at university is of particular interest as it has an effect on the rest of the students' degree programme (Lawson, 2015). The week, which was mostly designed by colleagues, features an induction lecture where they meet their year tutor and other staff. During the lecture, the PAL scheme is introduced and students meet their PAL group. In the rest of the week, the students take part in a quiz, meet their PAL leaders at the Maths Arcade as presented in Cornock (2015), meet their academic supervisor, take part in a team building event, and carry out other activities.

7. Final year de-stress day

Since 2014-15, a de-stress day has been held for the final year students. The first de-stress day was briefly mentioned in Cornock (2015). Each year the date is carefully picked to maximise the benefit to the students. It takes place on a day when all the final year students are at university for a compulsory module, in a busy period of the year. It usually runs for 4 hours immediately before a lecture takes place. The aim of the day is for the students to spend time together, as a break from studying.



Figure 7: The de-stress day in 2014-15 (Cornock, 2015)

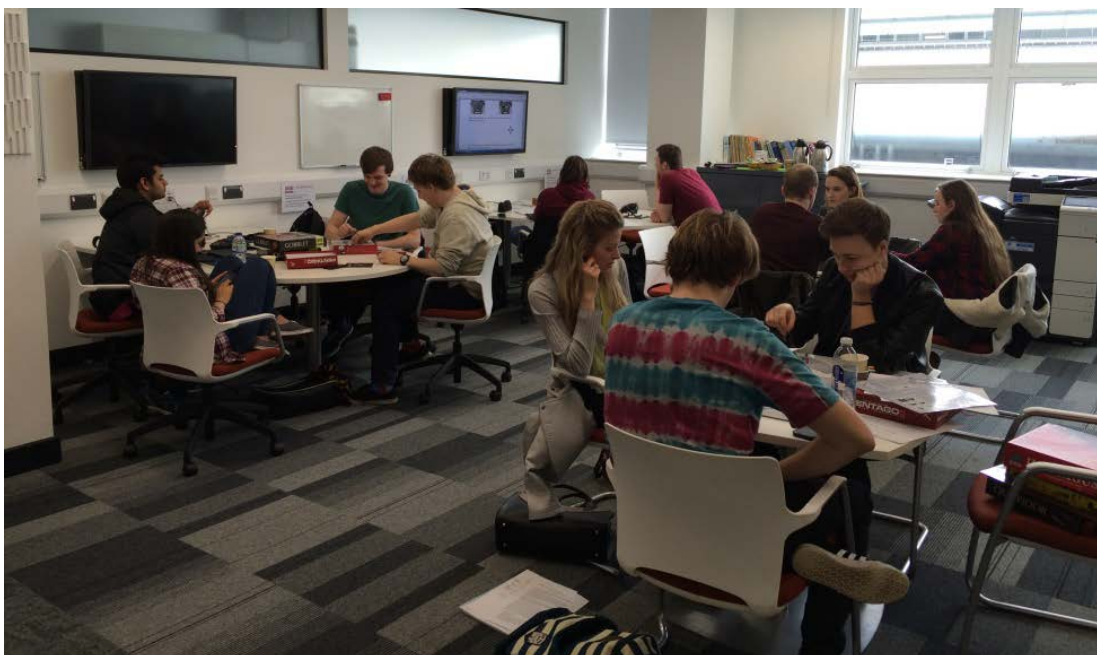


Figure 8: The de-stress day in 2015-16

In 2015-16 a survey was carried out with 52 of the 66 final year students in a lecture immediately after the de-stress day. Out of those students, 31 attended the de-stress day and 21 did not. The remaining final year students did not attend the lecture. Those who attended the de-stress day spent an average time of 1.36 hours there. Figure 9 shows which activities and resources the students used. When asked whether they enjoyed the de-stress day, 28 out of 31 said that they did, 2 did not answer, and 1 did not enjoy the event.

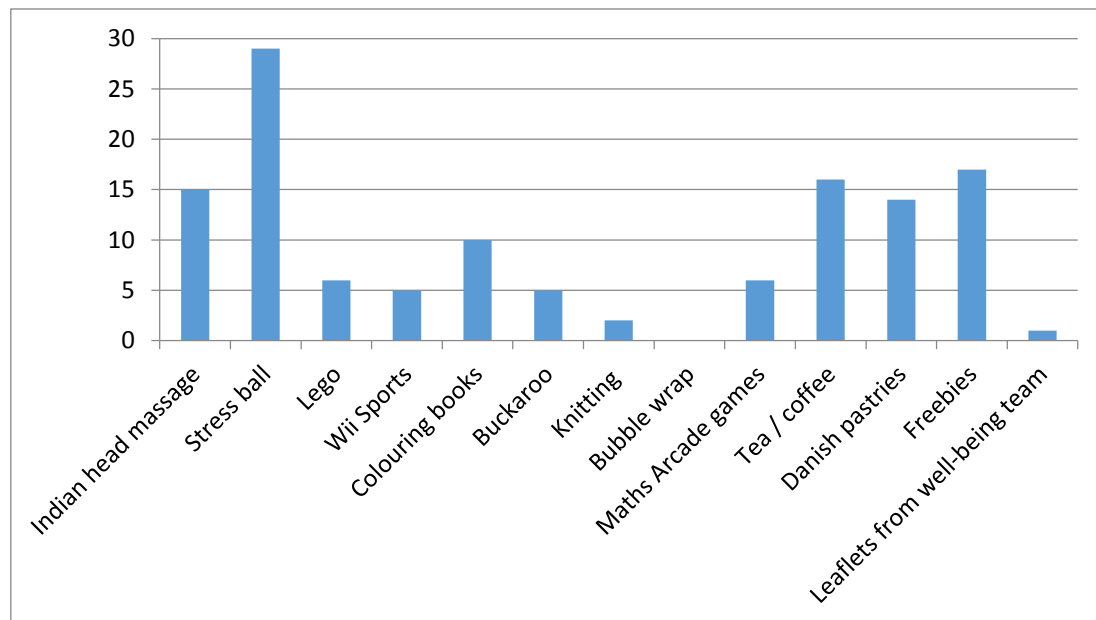


Figure 9: Number of students using the activities/resources at the de-stress day

When asked how they found the day, comments included that it gave them "*time to chill*", it was generally a "*calm and fun atmosphere*" and there was "*plenty of variety*." One student said that they "*will use [their] stress ball daily*." They said that "*it was great to spend time relaxing without feeling guilty about not doing work*" and "*it was fun without worrying about work / deadlines for a while*." Another comment was that "*everyone was able to enjoy themselves and not talk to each other about work*." One student said that they "*had fun playing with friends*" and that they "*talked to others on course*."

When asked why they attended, the reasons included the free stuff on offer, the activities, for them to relax, because they felt very stressed, to have a break, because it sounded fun, to forget about work for a while, and because of their heavy workload. The reasons for not attending included doing assignments, commuting, and still being in bed.

8. Other social activities

There are a number of other activities that take place. As presented by Cornock and Baxter (2012) and Cornock (2015), Rubik's cube championships have been run since 2012. They are enjoyed by participants and spectators. In 2014-15, a couple of final year students ran an inter-year quiz. There was at least one group from each year group and a staff team. In 2016-17, film nights were introduced, which take place approximately once a month. So far, there have been students from every year group and staff at the evenings. Plans have been made to incorporate a film night into the induction week programme from 2017-18.



Figure 10: The 2015-16 Rubik's cube championship



Figure 11: The 2014-15 quiz



Figure 12: The 2014-15 quiz

9. Conclusions

A course community has been built amongst staff and students on the mathematics degree at Sheffield Hallam University. This has been because of the attitudes of staff and having a mixture of opportunities to spend time together outside of formal teaching time. Staff are willing to work alongside students in a shared working space, and there is lots of support provided by year tutors and other members of staff. The opportunities to spend time together include a peer assisted learning scheme, a Maths Arcade, a de-stress day, and other social activities. The result is the formation of support groups and discussions between students in different years. The response to various evaluations is that there is a sense of home, that friendships have formed and that there is a large amount of support. Despite this, new activities and initiatives will be sought to encourage further development of the community.

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