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Students' Experiences and Perceptions of Peer Assisted Study Sessions: Towards Ongoing Improvement

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Cover Page Footnote

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Students' experiences and perceptions of PASS: towards ongoing improvement

**Jacques van der Meer
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ABSTRACT

Much research has been done on the effectiveness of Supplemental Instruction programs, (Peer Assisted Study Sessions, PASS, in Australasia). Less research has emerged on on students' reasons for participating in PASS and their perceptions of the effectiveness of the program. In this article, we will report on a small improvement-focused research project at one university. Our particular focus will be to reflect on the survey tool we used and how we could improve the design and administration of this tool. Implications of the survey findings for improving the training program of PASS leaders in this institution will also be discussed.

INTRODUCTION

The concept 'student engagement' has increasingly gained currency over the last decade (Krause and Coates, 2008; Kuh, Cruce, Shoup, Kinzie, and Gonyea, 2008; Pascarella and Terenzini, 2005). It broadly refers to students' engagement in activities that contribute to their learning achievements and their sense of belonging to the academic community. These activities include interaction between staff and students and between students. It also includes activities other than those directly related to course work, such as non compulsory peer learning activities and service activities such as leadership roles in student mentoring.

Evidence shows that peer learning programs aid students' engagement with university and academic success. The best-evidence synthesis of a wide range of literature by Prebble et al. (Prebble, et al., 2004) indicated that one particular program has been shown to be effective: Supplemental

Instruction programs. Supplemental Instruction has its origins in an approach developed in North American universities (Martin and Hurley, 2005). Deanna Martin originally developed this program in the University of Missouri in the 1970s. Since 1973 Supplemental Instruction programs have been implemented widely across the U.S. In Australia and New Zealand Supplemental Instruction is often known as Peer Assisted Study Sessions (PASS). Programs in Australasia that use the name PASS are often affiliated with the National PASS Centre for Australasia based at the University of Wollongong.

The Peer Assisted Study Sessions program (PASS) is aimed at assisting students in achieving success in courses that have high stakes (e.g. compulsory in order to progress with their studies, or requiring high marks for limited-entry courses), or courses that are perceived by students as difficult. The study sessions are facilitated by students who themselves have achieved well in these courses, or students who are regarded as high performers in the discipline concerned. The study sessions do not replace lectures or tutorials: they are supplementary to them.

PASS programs have both a content-specific and general academic skills focus. PASS can therefore contribute to first-year students developing effective learning skills, thereby laying the foundation for life-long learning skills. The format of PASS programs, a relaxed atmosphere with peers, contributes to an environment where students can connect with other students and develop friendships or study groups. Consequently PASS can play an important role in both students' integration into university life and overall satisfaction with their first-year experience.

Apart from the benefits of PASS to students, there are also institutional benefits. Staff/student and student/student interaction in teaching environments is linked to the retention of first-year students (Haggis and Pouget, 2002; James, 2001; Krause, 2006; Kuh, 2003). James (2001) therefore, points to the importance of more intensive interaction with first-year students in the early part of the year. Although resource-intensive solutions may be prohibitive, strategically allocating resourcing in the first

year (James, 2001) may benefit long term retention of students.

The effectiveness of PASS in term of pass marks and failure rates have been the focus of many studies (Arendale, 1994; Blanc, DeBuhr, and Martin, 1983; Congos and Schoeps, 1993, 1999; McCarthy, Smuts, and Cosser, 1997). It has been validated by the U.S. Department of Education (Martin and Hurley, 2005), and is supported by effectiveness studies using longitudinal data. It has been the focus of meta studies (e.g., Pascarella and Terenzini, 2005) and case studies in individual institutions (e.g., Lewis, O'Brien, Rogan, and Shorten, 2005).

We argue that effectiveness (or success) of PASS cannot only be judged by pass marks or lower failure rates. Effectiveness also needs to be considered from other perspectives. For example, we believe it is important that students perceive the development of study skills, as part of the PASS program, to be helpful and effective. We also want students to feel that PASS helps them to make connections with other students, and helps them to feel more connected to the university community.

From an institutional perspective we believe it is important that programs are evaluated from different perspectives so that areas for improvement can be identified. The focus of this article, then, is decidedly organisational improvement focused. That is: what can we, as PASS organisers, do to optimise the evaluation of the program and to enhance the training of PASS leaders? To start this process we conducted a small survey-based research project. The focus of the survey was on students' satisfaction and perceptions of effectiveness with regards to different aspects of the program.

This article will discuss both the findings of the research project and the design of the research project. In particular, we will seek to respond to the following questions: What does the data suggest as to the aspects of the program and the training of PASS leaders that could be improved? And, how can we improve the survey form and research approach so that we can more accurately identify areas for improvement?

We will do this by sharing our reflections and evaluation of the effectiveness of the survey design as we discuss the findings.

METHOD

The survey instrument consisted of a range of statements to which students could respond on a 5-point Likert-scale; the anchors were: strongly disagree (1), and strongly agree (5). The survey also included some open-ended questions and a limited number of demographic details. The statements related to the satisfaction and effectiveness of the three main aspects of the PASS program: course-related, skills development and social integration.

The statements were not tested before we administered the survey to students. We used factor and reliability analyses to assess their validity and to test particular constructs (such as 'study skills effectiveness'). The open-ended questions were categorised into conceptual groups.

We conducted the survey in week 11 of a 13 week teaching semester during the PASS sessions. Only those students who attended their sessions that week were surveyed. As the questions did not seek to assess the effectiveness of the PASS leaders, and as the survey forms were anonymous and dropped off in a central collection box, we asked the PASS leaders to distribute and collect the forms in their groups.

RESULTS AND DISCUSSION

Response and Bias

Of the 702 students who were registered as having attended one or more sessions, 345 filled the survey form in during the PASS session (response rate 49%). Students who were not present that week, or students who had stopped attending, were not included in the survey. This therefore biases the results toward regular and/or persistent attendees.

To get a less biased indication of students' satisfaction and possible reasons why they stopped attending or doing so intermittently, we plan to make some changes to the way we

administer the survey next time. For example, we could consider following up students who are not present when the survey is conducted. We could send the survey by email and provide an incentive for them to return the survey form.

It would also be worthwhile considering including a question about the number of sessions students have attended and the reason why they did not attend every session. Other studies have suggested possible reasons why students participate or not, and reasons why students do not attend each session (Arendale, 1994, 2004; McGee, 2005; Worthington, Hansen, Nightingale, and Vine, 1997). Reasons could include motivational levels, perceptions of helpfulness and comfort levels in participating in small group study sessions. We contend that each local situation may also throw up local reasons why this is so. These reasons, for example, may relate to the organisation of a course. One of the courses for which PASS sessions were organised in our institution, for example, was divided into two distinctive parts. Anecdotal comments from PASS leaders suggested that some PASS attendees only chose to attend the sessions related to one of the parts perceived to be more difficult.

Why Do Students Enroll?

The results indicated that most respondents, unsurprisingly, did so to improve their grade in that course (Mean 4.67; Std. Deviation 0.61) and to a lesser extent to pass that course (Mean 4.23; Std. Deviation 1.17).

It was clear from the data that students considered that these reasons were not mutually exclusive. Although the correlation between the responses to the two statements was significant (see Table 1 below), this was not strong. With regards to the survey design, therefore, it would be better to rephrase the statements as 'An important reason to enroll', rather than 'the main reason to enroll'.

Many students also enrolled 'just' to pass their course. The answers to the statement *Without PASS I would have no chance of passing this course*, provided a clearer insight into the proportion of students who considered the PASS program as very important for their chance to pass the course. Close to 20% (19.5) marked in the affirmative (4 and 5). There is a

moderate correlation between the answers to this statement and agreement with the statement *The main reason to enroll for PASS was to pass this paper*¹.

A correlation could also be found between students' reasons for enrolling in the PASS program and their reported consideration of quitting university. Close to 10% of the respondents reported having often thought about quitting university. For close to 90% of respondents in this group, their reason to enroll in PASS was to pass the course. This may suggest that PASS could conceivably play a role in their retention at the university.

Table 1 Correlations between intention statements

	I was sure I was going to pass this course when I started	The main reason to enroll for PASS was to pass this paper	Without PASS I would have no chance of passing this course	The main reason to enroll for PASS was to improve my grade
I was sure I was going to pass this course when I started	1			
The main reason to enroll for PASS was to pass this paper	-.360**	1		
Without PASS I would have no chance of passing this course	-.386**	.433**	1	
The main reason to enroll for PASS was to improve my grade	.040	.217**	-.036	1
I have often thought about quitting university	-.222**	.179**	.181**	.050

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

¹ 'Paper' in the New Zealand university context refers to a single 'course' unit. In this article the words 'paper' and 'course' will be used interchangeably.

Effectiveness and Satisfaction

Overall, students reported a high level of satisfaction with the program. However, we were particularly interested to find out what aspects of PASS were correlated to overall satisfaction with the program.

A factor analysis (Principal Components, varimax rotation) revealed a number of factors with strong reliability coefficients ($\alpha=.62$ to $\alpha=.85$). The course-related effectiveness scale included such items as: *PASS been very helpful with my study for this paper*, *PASS has been very effective in achieving my goals for this paper*, *PASS helped me to get a clear understanding of the expectations of the course*. The study skills related effectiveness scale included such items as: *PASS helped me to develop study and learning strategies*, *PASS helped me to become better at making notes*, *PASS helped me to become better with managing my time and workload*. The social integration effectiveness scale included such items as: *PASS helped me to integrate into university life* and *PASS helped me to make connections with other students*. Table two provides a summary of the scale characteristics.

Table 2 Scale characteristics

Description	Number of items	Mean	Min-max
Course-related effectiveness	7 .85	4.08	2.14 – 5.00
Study skills dev. effectiveness	3 .79	3.29	1.00 – 5.00
Social integration effectiveness	2 .62	3.53	1.00 – 5.00
Overall PASS satisfaction	2 .77	4.46	2.00 – 5.00

It appeared that overall satisfaction correlated highly with perceived course-related effectiveness ($r=.71$). This was followed by study skills-development effectiveness ($r=.41$), and social-integration effectiveness ($r=.37$). All these differences were significant at the 0.01 level.

From the scale correlations and the mean scores for the study skills development and social integration scales, we speculated that these aspects were not as effectively

incorporated in the PASS sessions as the aspects directly related to course. To explore this further, we were interested to find out what the impact was on respondents' overall satisfaction and course-content related effectiveness of the PASS program. We grouped respondents' scores on the skills-development and social-integration scales into three bands and then compared the means and performed an analysis of variance (ANOVA). This revealed that there were significant differences (F values between 18.35 and 56.20). Post-hoc analysis (Bonferoni) confirmed that the differences were significant at the 0.05 level between all groupings. This then suggests that where respondents reported that development of study skills and social integration had been effective, they also reported a higher course-related effectiveness and higher satisfaction with the program. This can be seen in the following table.

Table 3 Effectiveness and satisfaction

Mean for scale	Course -related Effect. Mean	N	Std. Dev.	Overall PASS Satisfn. Mean	N	Std. Dev.
Skills-development low (scale means 1.00-2.50)	3.63	58	.620	4.09	58	.864
Skills-development medium (scale means 2.51-3.50)	3.94	133	.537	4.38	135	.606
Skills-development high (scale means 3.51-5.00)	4.43	132	.442	4.69	135	.465
Social integration low (scale means 1.00-2.50)	3.69	57	.673	4.05	57	.885
Social integration medium (scale means 2.51-3.50)	4.00	121	.501	4.44	124	.572
Social integration high (scale means 3.51-5.00)	4.30	144	.553	4.63	146	.516

In other words, these two aspects of the PASS program seem to be directly contributing to students' perception of the overall effectiveness of PASS and their overall levels of satisfaction with the program.

In seeking to understand what the respondents thought could be improved, we included the open-ended question: *What suggestions do you have for improving the PASS program?* Of the 133 respondents who answered this question, there were 100 useable comments; the 33 contained comments such as 'nope', or 'nothing', 'good as it is'. Over a third of comments (36) related to the organisation and focus of the sessions. Of these, 19 respondents wanted more focus on exams and tests, and 17 wanted better structure or organisation of sessions (17). In the first group there were comments such as: "More exam style questions and examples" and "More concentration on exam and assignments and how to go about them". In the latter group there were comments such as: "Have a standard of preparation that all facilitators need to meet as some are less organised than others", "More organised outline of what is going to happen in the duration of the session", "More structure, follow some kind of plan would be helpful". Another group of comments made up a quarter of the responses: more PASS sessions at different times or more than one session per week, or PASS sessions for other papers (25).

There were two smaller groups of comments, seven respondents wanted more notes or handouts and four respondents wanted PASS leaders to give answers. The latter category included such comments as: "It would be helpful if tutors could answer questions about the content! Quite often they don't know specific answers" and "More answers from tutor themselves - more explanation". The remainder of the comments was about single issues such as the room size, the light or the use of visuals.

What can we learn from these comments? That students wanted more sessions or PASS in more courses can be considered an inverse way of saying that they liked what they experienced in PASS. In other words, these could be considered more a positive endorsement. The comments relating to the structure or organisation of the session point at an area where training of leaders can be improved. This will be further addressed in the concluding comments. The relatively few remarks about leaders not answering questions cannot necessarily be interpreted as meaning that these were

the only students who misunderstood the intention of the PASS program. It could also be mean that other students did get their questions more often answered in their sessions. Indications of this were found in answers to another open question. This will be explored in the following section.

What Do Students Think PASS is About?

In one of the open-ended questions we asked: *How would you describe PASS to future students?* Our intention was to elicit responses that would give some indication of whether students perceived there to be (or experienced there to be) a focus on *other* than course-related related activities. In other words did students experience PASS as something different from ‘regular’ course-organised tutorials? This relates to the previous section. We consider the development of study skills and students’ development of connections with other students to be important aspects of the program. But do they?

Of the 345 respondents 261 students answered the question. We categorised the answers in eight broad categories that emerged from the data. Some responses (25) had descriptions of PASS that fell in more than one category; these were multiply coded.

Table 4 Description of PASS categories

Category	Number of comments
General usefulness comment	79
Directly course related	62
Approach of sessions	49
Help opportunities	42
Working and connecting with students	23
Another study opportunity	18
Means to pass the course	7
Skills focused	6
Total	286

As can be seen from the table, a large number of students did not so much describe the study sessions as well as comment on the general usefulness and effectiveness with comments such as: awesome, very helpful, beneficial, brilliant, helpful, cool, useful tutorial, effective.

Comments that were directly course-related made up the second largest category. Within this category a number of key benefits were highlighted, such as the clarification of course expectations, useful revision of course material and a great aid in understanding course material. A representative selection of comments in this category is listed below:

Good review of past week's lectures, shows you what you don't know yet.
 Good, you get to discuss assignments which makes them easier/better to understand, good going over lectures from the past week
 Helpful in teaching you what is expected in the course
 Really good for revision and to get an idea of what to expect on quizzes and exams. Well worth it
 Very handy for understanding topics
 Very helpful in understanding what is expected of you to do in the course

Closely related to this category was the 'Help opportunities' category. Not surprisingly comments often referred to help with course-related matters. Some of the representative comments in this category are listed below.

All those little concepts and questions you struggle with you can ask and know the answer within minutes.

Great help. You get answers to questions your tutor may not have time to answer

Helps you understand course material in a less full-on environment.

Because 2nd years are teaching you it's easier to ask questions.

Couple hours in Pass program which could clarify all your questions

Like an extra tutorial, extra assistance

Sort of an extra tut, but freer to ask questions and more focused on general concerns

Very helpful to be able to just talk to people and ask questions you have

What some respondents seem to suggest is that PASS is nearly like another tutorial, except that it feels easier to ask questions. Some comments could be interpreted as meaning that PASS leaders do indeed give answers in a more or less straightforward way. What could be of some concern is that some respondents seem to expect PASS leaders to provide answers. There were some indications of this in the comments of what can be improved. This then may be an area for improvement in our training program. This will be further addressed in the concluding comments.

The category 'approach to the sessions' provided clear indications that many respondents experienced the sessions as being about learning in groups with other peers in a more interactive way, guided by a past student. This can be seen in the following comments.

A group of students studying together, aided by a past student who knows what to expect in the course

A smaller more focused learning environment, which is more interactive and generally a better experience.

As a great help towards success in that paper. It is collaborative, supportive and helps towards confidence-building.

The skills development focus of PASS did not come through in many comments. Also, the comments that did include some reference to study skills cannot necessarily be interpreted as referring to study skills such as note-taking. Comments such as "assistance in Study skills" and "fun, help develop study skills" can also be read as meaning skills relating only to the content of the course.

The responses to statements about study skills (see Table 5 below), however, do suggest that students experienced some degree of help in developing specific study skills such as note-taking and time-management, but this was not convincingly so.

Also, the phrasing of the statement *PASS helped me to develop study and learning strategies*, does not provide clarity as to whether students read this as meaning study skills related to the content of the course, or more generic study skills. A better way of phrasing this question in the next survey could be: *PASS helped me to develop general study and learning strategies that I could apply in other courses as well*.

Table 5 Study skills and social interaction

	N	Min.	Max	Mean	Std. Dev.
PASS helped me to develop study and learning strategies	340	1	5	3.72	.892
PASS helped me to become better with managing my time and workload	339	1	5	3.11	.962
PASS helped me to become better at making notes	339	1	5	3.03	1.017
PASS helped me to make connections with other students	340	1	5	3.56	1.022
PASS has helped me to integrate more quickly into university life	339	1	5	3.49	1.001

The responses to the statements about social interaction were more positive and unambiguous. This was also clear in the comments to the open-ended question:

A good way of meeting people in the same class. This way you can share ideas and learn more.

A great way to have peer learning and meet others who want to succeed in the paper too.

A way of meeting people doing the same course and learning

Excellent way of learning with like-minded. Easy to get along with mentors and students

Good way to get extra notes and make connections with other students.

Good way to improve grades and meet other nice people sitting same papers

It is a good way to connect with other students enrolled in the same paper.

This helps as you can compare how others are finding the course.

It's really helpful. U make friends and can discuss anytime.

One conclusion that can be drawn from the overall responses to the question is that the question may not have been worded clearly enough. The large number of short evaluative comments, rather than descriptive comments, seems to provide some evidence for that. A better worded question for the next survey could be "Please describe PASS to future students and explain to what extent PASS is similar or different from other teaching-related sessions at the university". Furthermore, considering the large number of comments related to 'help', we may want to include a number of questions directly related to help-seeking, especially with regards to PASS leaders answering questions.

CONCLUSION

The survey was effective in finding out students' overall sense of satisfaction and perception of effectiveness. It was less effective in helping us understand what they thought the program was about and whether the focus of the program was fully realised. Although there were clear indications that the intentions of the program were well understood, or experienced by some students, this was difficult to establish as clearly from the comments as we might want to. In the next survey, therefore, we may want to sharpen the focus on this. Rather than just enquiring into students' experiences (satisfaction and helpfulness) of PASS, we may want to find out what their normative understanding of PASS is by including closed questions that elicit students' understanding of what they think PASS *should* be about. This could be through questions such as *The main focus of PASS*

should be on PASS leaders answering students' questions, and PASS leaders should help students to develop strategies to solve problems and reach answers to questions.

In summary, our training program could be enhanced by focusing more explicitly on a number of specific aspects:

- a clearer focus on including the development of specific study skills in sessions;
- a greater focus on facilitating students' connectedness with each other;
- a more consistent approach to the start of sessions, that is: explicitly stating how the session is planned or structured;
- clear and more frequent communication about the philosophy and intentions of the PASS program.

These aspects will be discussed in turn.

Effective study skills development was closely related to students' level of satisfaction with PASS, but development of these skills did not seem to be experienced as prominently present in the delivery of PASS sessions. Although we stress this in the training sessions, we may have to consider how we can assist leaders to be more intentional about this in their planning. One idea could be to get leaders to use a semester-long planning grid in which they plan aspects of academic skills development strategically and explicitly in different parts of the semester. For example, a greater focus on note-taking approaches in the beginning of the semester, a greater focus on exam preparation techniques towards the end of the semester.

A greater focus on facilitating students' connectedness with each other may also have to be attended to intentionally. During the first few sessions leaders often use ice-breakers to help students to get to know each other. Other, shorter, activities could be considered for subsequent sessions. In the training sessions, we may have to invest more time with leaders in brainstorming ideas of how this could be done effectively, without attendees being concerned that too much time is spent on activities that they may not consider to be 'essential' to the purpose of PASS sessions.

To strike the right balance between structure and responsiveness in planning a facilitated study session is a challenge. In our conversations with PASS leaders we have realised that for some of them there is a tension between wanting to have a clear 'lesson plan', and wanting to be responsive to students. From the suggestions for improvement it is clear that students would benefit from a sense that PASS sessions are more structured. This does not mean that PASS leaders have to follow a rigid pre-determined structure, but that students know what the approach of that session will be. This could include setting the agenda with their students for part of the session, in order to be responsive to the needs of those students at that particular point in time, as well as engaging students in one or more clearly pre-planned facilitated activities. In other words, what we may have to focus more on in the training is how to help PASS leaders become more adept at striking the balance between structure and responsiveness from session to session. One strategy they could develop is to always have a number of planned activities that could either be included or not depending on students' needs that week. However, at the same time leaders would make sure that there is at least one or more short activities that take place in each session, so that students do experience a sense of structure and a preparedness by their leaders.

Related to providing students with a sense of structure is the importance of communication. Explicit, clear and frequent communication of what the intentions and underlying philosophy of PASS is, cannot be under-estimated. Communicating clear goals or objectives is important for both leaders and students. For students, this is important so that they know what they are supposed to achieve in a session; for leaders, this is important so they know how to structure learning activities (e.g., Biggs, 2003; Ramsden, 2003). Hall (2002) and Ecclestone (2001) argue that helping students to see the rationale for what they are doing is critical to motivation. At the most 'obvious' level, this suggests that leaders should clearly articulate what the sessions are intended to achieve.

The needs of students attending the PASS sessions to receive clear and frequent messages about what the intentions and

focus of the sessions are, is mirrored by a similar need of PASS leaders to frequently hear these messages. The training of leaders, therefore, may not be quite as effective if this is done in one block session (of two days). Although leaders are observed delivering their PASS session at some stage during the semester (and receive feedback so that they can improve their practice), these observation visits may not be enough. We argue that it may be more effective to reduce the initial training time, and instead meet weekly for an hour during the first four weeks of the semester. In these four weekly sessions, the PASS trainers could work on helping PASS leaders to keep on track regarding communication of key messages and the structuring and planning of sessions. In our training plan for next year we plan to pilot this approach. Lundeborg and Moch (1995) suggested in their study that regular weekly sessions helped their trainee leaders to gradually learn the complex skills of careful listening and redirecting questions. We anticipate organising these weekly sessions in small enough groups so that we can encourage leaders to continue meeting after those four weeks: to provide support to each other, to plan to some extent together and to keep each other on track.

In conclusion, the results of this small research project have been helpful in identifying how we can enhance our training program. The survey was a satisfactory first step towards developing an effective instrument. It has been helpful in identifying how we can further develop a survey instrument to assist us in the ongoing monitoring of the quality of our program.

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