Benefits and Shortcomings of Peer Assisted Learning (PAL) in Higher Education: an appraisal by students

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The benefits and shortcomings of a Peer Assisted Learning (PAL) scheme are described from the perspective of its student participants. Qualitative methodology is used to investigate and describe student outcomes, together with an analysis of influence of PAL on marks in one course. A wide range of benefits are reported for students engaged in PAL, as well as for those students responsible for managing PAL discussion groups. Negative aspects of PAL as described by students are also presented. It is argued that qualtitative benefits of PAL are more pronounced and demonstrable, and more appropriately portray the scheme, than quantative outcomes.

Introduction

Peer Assisted Learning (PAL) and its variants have operated in the UK as a system of student-to-student support since the early 1990's (Wallace, 1992; Rust & Wallace, 1994). PAL operates most usually by using trained second or third year students ('PAL Leaders'), working alone or in pairs, to regularly supervise the learning of a small group of first year students. This group learning is usually classroom-based (the 'PAL session') and is designed to offer a range of benefits to an institution, its teaching teams and courses, and to those students involved with it (Capstick & Fleming, 2001, 2002; Packham & Miller, 2000; Donelan & Kay, 1998). The emphasis in PAL is on active discussion and cooperative learning within the framework of a partnership with the formal structures of the course (Spencer & Wallace, 1994; Donelan & Kay, 1998; Donelan & Wallace, 1998).

Although nomenclature and operational issues vary, the core idea of PAL as peer-led, cooperative study sessions supplementing traditional teaching has changed little since PAL first came to the UK over a decade ago. At this time, the model from which PAL and a range of other schemes derived was the North American scheme termed Supplemental Instruction (SI) (see Arendale, 1994). Since the inception of PAL/SI in the UK, there has been a proliferation of the paradigm, with PAL or similar schemes now operating across the full spectrum of degree courses at around twenty HE institutions. PAL has also adapted to suit local conditions (see Wallace (1995) for commentary on adapting PAL to an institution). The PAL Project that operates the scheme described here also draws upon this lineage and has been cited as an example of excellent practice by Universities UK (Universities UK, 2002).

Research has previously been presented that argues PAL is of benefit in raising grades for first year students (Ashwin, 2003; Coe et al., 1999; Bidgood, 1994; McCarthy et al., 1997) and this is viewed as an important evaluative outcome for the scheme. Whilst the methodology for these studies has not always been convincing – usually taking the form of a quasi-experimental comparison of grades between those who attend PAL and those who do not, an argument open to the counter-claim that students may in such a situation be in some way 'self-selecting' – the research base in the U.S. is now so large and varied and is now inclusive of some rigorous longitudinal studies and imaginatively-designed evaluations (e.g. Loviscek & Cloutier, 2001) that it is reasonable to concur that PAL – or at least its North American precursor – may be considered efficacious in this way.

Such benefits of PAL are assumed to derive primarily from the outcomes of the PAL session, which is intended to offer an environment in which first year student students can adjust quickly to university life, improve their study habits, acquire a clear view of course direction and expectations and enhance their understanding of the subject matter of their course through group discussion (Capstick & Fleming, 2001, 2003).

Likely because of a pressure or desire to demonstrate a clear benefit of PAL in statistical/ financial terms, much that has been written about the effectiveness of the scheme sets out to assess whether PAL influences performance – perhaps at the expense of a reflection upon some less obvious, qualitative outcomes pertaining to the learning experience itself. Indeed, to review research into PAL/SI (e.g. the extremely comprehensive bibliography by Arendale (2002) at www.umkc.ed/cad/si) is to read oft-repeated claims about its effects, reduced to a not-always-convincing statistical analysis, with more qualitative questions often left to an acceptance of the received wisdom of PAL. Research in the UK has suggested effects of PAL for first year student participants such as increasing understanding of course material and adapting to university life (Donelan & Kay, 1998), and the development of transferable skills (Price & Rust, 1995) but it is felt that a more thorough-going investigation of outcomes of PAL for first year students is merited. This is timely particularly because Ashwin's (2003) study reported that a correlation with attendance at PAL and performance corresponds with a *reduction* in quality of learning – essentially, students were getting better marks but only through a more discerning understanding of assessment requirements, at the expense of a meaning-oriented approach to learning. It is suggested that due to the context in which PAL operates – broadly speaking, an assessment-driven environment – there is perhaps a tendency to shift from a meaning-oriented approach to learning towards a strategic one. Whilst this does result in improved grades, the concern is evident that this may be at the expense of a focus on the appreciation and understanding of the course subject matter at hand.

Other research in the UK has pointed to the benefits of PAL to those trained students who run the PAL session ('PAL Leaders') suggesting that they receive a range of benefits from participating, such as development of teamwork and communication skills (Donelan, 1999; Saunders & Gibbon, 1998). Ashwin (2003) also reports the development of a more social view of learning as an outcome for peer facilitators. Although PAL may be primarily implemented as a means of supporting first year students, outcomes for PAL Leaders are also important indicators of the worth of the scheme, particularly as these students are generally committed and enthusiastic individuals essential to the success of PAL itself.

It is felt to be timely to move beyond a perhaps inevitably simplistic assessment of the outcomes of PAL in terms of its influence on student 'performance'. Whilst such an evaluation may be demanded by an institution to demonstrate the worth of a scheme (and as such may be unavoidable at times) there are several problems with this approach:

1. It will generally be fraught with methodological issues: unless PAL is implemented experimentally, i.e. with a genuine control group rather than self-selecting 'non-attenders' then questions of causality can never truly be addressed (though see Parkinson (in press) for just such an experimental design in evaluating peer tutoring)
2. Assessing for influence of PAL on performance disregards other outcomes – is PAL creating more autonomous, critical learners, for example, or simply students more shrewd to what assessers want from them?
3. A focus on performance (and retention) as outcomes for PAL has tended to emphasise these as the crux of the scheme: in fact, PAL may give rise to a range of valuable learning experiences, many of them unique to it, but these may be overlooked or downplayed where attention is focussed upon an attempt to 'prove' that PAL 'works'
4. It disregards or downplays shortcomings or deficiencies with a PAL scheme: if PAL is seen to effect a statistically significant effect on grades, then it may be easy to overlook qualitative aspects – good and bad – of the scheme
5. It disregards the processes effecting such outcomes

The research described here therefore attempts to look at students' perceptions and appraisal of the benefits as well as shortcomings of PAL primarily through qualitative techniques. Whilst it is acknowledged that learning processes are relevant to student outcomes, these are largely outside the scope of this paper: instead we seek to present the range of positive outcomes as seen as evident by students, as well as to present their consideration of what is lacking in the scheme. In addition to this qualitative assessment, an assessment of the influence of PAL on student performance is also presented.

An attempt is made to test some of the purported benefits of PAL by asking students to assess to what extent they felt certain outcomes of PAL were manifest in their experience. A number of potential benefits are tested as suggested by the literature, such as the contribution of PAL towards settling in to university, the opportunity to discuss subject matter in 'safety' (i.e. away from course staff) as well as potential benefits which PAL co-ordinators considered may arise, on the basis of anecdotal evidence. Students are also asked to expand on scored answers with underlying reasons for their choices, and to state reasons for (not) attending PAL and dislikes or areas for improvement.

Student participants (first year students) are interviewed to explore their experiences and opinions of PAL, with an emphasis on assessing benefits or detriments originating from PAL. PAL Leaders are interviewed to explore their experiences and opinions of PAL, with an emphasis on running and managing the PAL group and what opportunities and difficulties this presented, as well as asked to keep reflective diaries of their experiences of PAL to explore those points mentioned above.

Finally, a statistical assessment of the impact of PAL on grades on a course is undertaken, using a novel procedure for the field utilising an improved control for self-selection bias and taking into account course circumstances.

Note on terminology: PAL is used here to describe the peer learning scheme implemented at Bournemouth University and also to refer to other similar peer learning schemes. For simplicity, the term 'PAL' is used as a synonym for a range of UK schemes (e.g. Peer Assisted Study Support), though it is acknowledged that there is a variety of practice and situational contexts.

Methodology

PAL at Bournemouth

The study described was undertaken at Bournemouth University, a vocational university in the South of England, during the academic year 2002/3.

During 2002/3 PAL ran on the following diverse (sets of) courses:

School	No. Courses incorporated	No. PAL Leaders	No. first years
Finance and Law	2 (Law)	9	120
Conservation Sciences	4 (Conservation)	4	100
Services Management	6 (Hospitality)	6	130
Design, Engineering, Computing	1 (Business IT)	5	100
Media School	1 (Communication)	4	80
Business School	1 (Business Information Systems Management)	6	90
Total	**6**	**15**	**34**	**620**

Over the course of the year, PAL ran relatively successfully from an operational point of view on all these courses: attendance, whilst often very variable, was overall above what could have been expected (running at close to 100% for some groups) and all PAL Leaders persisted with the scheme throughout the year (except in two situations unrelated to the PAL scheme). PAL has since expanded to run with over 80 PAL Leaders supporting around 1300 first year students.

Key features of the implementation of PAL at Bournemouth are:

- PAL Leaders are trained for their role during an intensive, two-day initial training course at the start of Induction Week, and then during follow-up training sessions mainly in the Autumn term. PAL Leaders have available to them extensive training materials and resources to use in their PAL sessions.

- PAL Leaders are drawn from the same or a very similar course of study to their first year students, are matched to a particular seminar group (enabling them to build up a relationship with them) and are supervised from within the course by a 'Course PAL Contact', a nominated member of the teaching team who meets with them regularly to review and plan PAL sessions.

- Central PAL Co-ordinators aim to observe PAL Leaders in their PAL sessions on two occasions during the course of the academic year, and give them feedback on their techniques and group management. PAL Co-ordinators also operate an open-door policy so that we are available wherever possible to support PAL Leaders.

- PAL Leaders are paid at £5 / hour for running PAL sessions, attending follow-up training, meeting with their Course PAL Contact and for up to half an hour a week preparation time.

- PAL sessions are timetabled and course teaching staff encouraged to contribute 'guided activities' for use by PAL Leaders.

Research questions

The over-arching research questions for this study can be described as:

1. What do student participants (first year students) see as being the benefits and shortcomings of PAL for them?
2. What do PAL Leaders see as being the benefits and shortcomings of PAL for themselves and for their students?
3. Is there quantitative evidence for an influence of PAL upon achievement?

With two distinct student groups involved with PAL – PAL Leaders and first year participants – there was an expectation that first year students would evaluate their own experience of PAL, and PAL Leaders evaluate their own experience but also offer a perspective (as 'overseer') on the outcomes for first year students.

1. *Assessment of student perceptions – student 'participants' (first year students)*

Student participants' perceptions of PAL were assessed in three ways, by:

- Short questionnaires administered after PAL sessions through year
- Cohort surveys administered at around the middle of their second term of study
- Semi-structured interviews with student participants accepted to be PAL Leaders run during February and March 2003

The **short questionnaire** administered at the end of PAL sessions asked students to rate a number of aspects of learning (data not used in this study) and also asked the question "How was this PAL session of benefit to you (if at all)?", sample answers from which are illustrated in the results.

The **cohort survey** asked students the following questions (among others not discussed within this study):

1. If you have been to three or more PAL sessions, what has made you keep attending?
2. If you have not been to PAL, or to less than three sessions, please indicate why.
3. If you have been to any PAL sessions, do you agree or disagree that they contributed to the following? (sixteen potential benefits listed and respondents asked to rate strongly disagree, disagree, neither agree nor disagree, agree or strongly agree) - *see notes below for further detail*
4. Which aspects of PAL do you dislike?
5. What would you like to see improved or developed in relation to PAL?
6. Any other comments.

An attempt is made in parts of question 3 of the survey to assess the type of learning outcome of PAL in relation to Approaches to Studying theory (Entwhistle, 1997). Entwhistle's much-cited work suggests that students are inclined to adopt 'styles' of learning which are "student-dependent" but also "context-dependent" (Entwhistle, 1988). In other words, the learning situation in which students find themselves influences their approach to learning. Learners may adopt: the Deep or Meaning-oriented approach (associated with understanding and analytical thinking), the Surface or Reproducing approach (associated with memorising and factual information) and the Strategic or Achievement approach (associated with recognising and utilising the most effective way of achieving good grades). The first and last of these correlate with achieving good grades; the Surface approach the opposite.

Entwhistle's work has been well-tested and used to design and apply other scales (e.g. Richardson, 1990) and is familiar to many as a satisfactory overview of student behaviour and attitude to study. Thus, its implications have been utilised here to apply some theoretical rigour to the question of what outcomes may be arising from PAL. Although the questions used in this study are derivative it is suggested that they are indicative of the types of approach encouraged by PAL.

See table 1 for list of potential benefits rated under point 3 and rationale for inclusion.

Table 1 : Potential benefits of PAL and derivation

Note – the potential benefits listed are in order of salience of presence as per the results of the survey and not in the order they originally appeared in the questionnaire.

"If you have been to any PAL sessions, do you agree or disagree that they contributed to the following?"

Potential benefit	Derivation
1. Opportunity to clarify basic concepts	Does PAL contribute to *understanding*? (commensurate with *deep* approach to learning)*
2. Better preparation for assignments	Does PAL contribute to *strategic* ability to do well? (commensurate with *strategic* approach to learning)*
3. Opportunity to air concerns away from teaching staff	Does a safe, open environment exist?
4. Opportunity to clarify complex concepts	As potential benefit (1) though does clarification of concepts in PAL extend beyond the basics and into complex areas?*
5. Understanding subject matter of course	As potential benefit (1) in a more general sense*
6. Reassurance about course-related concerns	Does PAL provide a guidance and reassurance function specific to the course of study?
7. Social aspects of learning (learning with others)	Is the supposed co-operative nature of PAL present and explicitly recognised as being of value by students?
8. Better marks in assignments	Do students perceive PAL as assisting achievement?
9. Awareness of course expectations	Does PAL enable students to understand what is expected of them? Relates to potential benefit (2)*
10. Settling in to university	Does PAL perform an inductive function?
11. Enjoyment of learning	PAL is often seen as of value for its informality – does this extend into, and can it be exemplified by, contributing to making learning more enjoyable?
12. Development of my confidence	Does PAL influence affective aspects of student approach to study?
13. Reassurance about non-course-related concerns (e.g. housing)	Does PAL assist with extra-curricular matters of concern to students?
14. Development of study skills (e.g. essay writing, note-taking, time management)	Does PAL improve generic study skills of students?
15. Remembering factual information (e.g. names, dates) [#]	Does PAL contribute to a *surface* approach? (commensurate with *surface* approach to learning) *

* Potential benefits 1,2,4,5, 9 and 15 are intended to reflect Approaches to Studying theory (Entwhistle)

[#] Potential 'benefit' 15 is included as a form of control variable – it is not a stated aim, nor suggested by the evidence, nor, it may be argued, of benefit to students that PAL manifests or encourages a 'surface' approach to learning.

Semi-structured **interviews** with student participants asked an initial opening question: "What has been your experience of PAL this year?" Other questions included on the interview schedule, used where appropriate, included:

- What do you think other first year students think about PAL?
- What is people's attitude to PAL?
- How is it different from a tutor-led session?
- What do you think some of benefits are? How and why do you get these from PAL?
- What are some of the downsides to PAL? What do you dislike about PAL?
- What makes you decide whether to go or not? Why do you go?
- Can you describe what happened in your PAL sessions - from the start through to end of year?

2. *Assessment of student perceptions – PAL Leaders (second year students)*

PAL Leaders' perceptions of PAL were assessed in ways, by:

- completion by PAL Leaders of reflective post-session forms through year
- survey of an opportunity sample of PAL leaders during March 2003
- semi-structured interviews and discussion groups with PAL Leaders during February to April 2003

Post-session **reflection forms** asked PAL Leaders to comment on positive and negative aspects of the PAL session in general, group learning, their own skills, activities and self-development.

The PAL Leader **survey** asked PAL Leaders to comment on a range of issues, some outside the scope of this paper (pertaining for example to operational issues), but including:

- What have been your experiences of PAL so far?
- How is PAL different from tutor-led sessions?
- What do you think students gain from PAL sessions?
- What do students dislike about PAL?
- What sort of things are PAL sessions good for (and not so good for)?
- What have you got out of being a PAL Leader?
- What have you found difficult or not liked about being a PAL Leader?

Interviews and **discussion groups** asked an initial opening question: "What has been your experience of PAL this year?" Other questions included on the interview schedule (from a range of questions), used where appropriate, included:

- What have you enjoyed / found difficult / got out of being a PAL Leader?
- What happens in your PAL sessions?
- What do you think students gain / dislike about PAL sessions?

3. *Quantitative methods*

This study aimed to assess whether there is any relationship between PAL attendance and end-of-year marks. Because PAL was available to all students, an experimental design using a control group was not possible. Instead, the intention was to examine whether attendance at PAL correlated with end-of-year marks, with an attempt made to correct for some elements of 'self-selection' bias.

An attempt was made to collect registers across all PAL courses, by requesting PAL Leaders keep careful records. In the event, records kept by PAL Leaders were too incomplete to permit careful analysis of cohort trends except in one course, and for one term – this because official course records of attendance at PAL were kept on this course. Nonetheless, enough data was collected to allow for meaningful statistical analysis.

The method used to assess for any relationship between PAL attendance and marks was as follows:

- Three variables were used in analysis:
  - attendance (by student) at PAL sessions over the Autumn term
  - average attendance (by student) across all other course units over the Autumn term
  - end of year mark (by student)
- The hypothesis that a positive correlation exists between attendance at PAL and end-of-year marks was analysed by performing a Pearson's test of correlation; to attempt to account for the likely strong effect of self-selection, motivation bias and positive influence of attending lectures, seminars etc. the variable 'average attendance' – a student's average attendance across the course excluding PAL – was corrected for
- With 6 separate seminar groups run differently by 5 PAL Leaders, effects for group were analysed by testing for correlation separately by group

Data was also collected for this course on retention for the year in which PAL ran and for the preceding year.

Results

1. Assessment of student perceptions – student 'participants' (first year students)

<u>Short questionnaires</u>

The short questionnaires administered at the end of PAL sessions proved useful for PAL Leaders to get ideas for what to do in subsequent PAL sessions (as it asked first year students to suggest such) but produced data of limited use for research purposes. This was largely because responses were too short to be particularly informative. A number of the types of responses are given below, however, together with illustrative responses, as they do indicate areas students considered to be of benefit.

Generally 'helpful'

Students often referred to PAL non-specifically as being 'helpful' or 'useful' etc.:

> "Very helpful"
> "Very useful"
> "Good to cover things more than once, especially when unsure"
> "Quite beneficial, went over work I couldn't remember how to do"
> "Good to raise and solve problems with the course"

Adjusting/ settling in to university

The suggestion was made that PAL was of value in adjusting to university, in terms of awareness of the operation of the course, general settling in and getting to know fellow students:

> "Helped me organise the beginning of my course"
> "Good to talk about how we are getting on now we have started uni"
> "Found out about my group members"
> "Got to know seminar group better"

Understanding the course/ course specific help

Student comments indicate that PAL has been of value in understanding course material in its own right, as well as in relation to course seminars:

> "Gives a clear understanding and builds confidence in yourself with regards to topics covered in seminars"
> "This session benefited me as it gave me time to go over points that I did not understand before"
> "Helps to understand how [legal] cases relate to each other"
> "I finally learnt how to convert binary to hexidecimal"
> "Very helpful as it lead to my understanding decimal, hexidecimal and binary"
> "Helped me expand my learning of course topics"
> "Cleared up some ideas about systems and coding"
> "Helped with understanding data-flow diagrams and entity relationship diagrams"
> "Helped me increase my understanding of topics I have previously had trouble with"
> "Helped to understand Register in literature"
> "Helped with looking at criminal law seminar questions"
> "Vital preparation for criminal law seminars - very helpful"
> "Helped with my understanding of the subject"

Awareness/ understanding of course directions and expectations

PAL sessions were also seen to be of value for understanding course expectations and 'survival' skills:

> "It helped me understand more of what is asked from me on this course"
> "Good pointers and tips on surviving the course"

Assignment help

PAL sessions may be used to attend to immediate academic needs, such as looking at assessment briefs (assignment questions), and other preparatory work for assignments:

> "Useful for pulling apart assignment question"
> "It helped me with some of the issues I was unclear about for my essay"
> "A useful opportunity to ask questions about the assignment"
> "Very helpful - planned an excursion AND worked on criminal law assignment"
> "Good stuff - looked at deadlines for assignments"
> "Beneficial as worked on current assignment"
> "Helped a lot with essay preparation"
> "Very helpful for discussing ideas for contract assignment"

Reassurance / approachability of PAL

A feature of PAL appreciated by students has been its approachability in terms of students feeling able to ask questions of concern to them in a safe environment, this itself providing a reassuring function to some:

> "Felt better because everyone has the same worries!"
> "Very much so [beneficial]. I can ask questions not relevant in lectures/seminars. Helps to tie up loose ends."
> "I feel as though I can ask any questions relating to my course with ease"
> "It allowed me to discuss things I felt uneasy about in the course with the time for them to be able to be explained"
> "Relieved pre-assignment stress!"
> "Good to be able to talk about things that are worrying us"

Study skills

Development of a range of transferable skills were reported by students as being a benefit of PAL. These related to how to structure assignments, presentation skills, revision skills, use of computer software, time management, use of the library, writing up lab books, reports and experiments:

> "I acquired skills on how to structure an assignment"
> "The difference between essay and report writing"
> "A good session, practised presentation skills"
> "Helped to understand how to structure a presentation"
> "Enjoyable, beneficial, learnt about presentations"
> "Good for steadying nerves on presentations"
> "Helped with essay techniques and lab books"
> "Showed us how to write up experiments"
> "Revision techniques useful"
> "I learnt how to use Microsoft Powerpoint"
> "I learnt how to manage my time and also how to approach the contract law assignment"
> "Went to library so I now know where books etc. relevant to the course are"

Cooperative learning

Students also recognised the cooperative nature of PAL as valuable:

> "Very useful, I like sharing ideas with people who want to listen and picked up a few essay ideas"
> "Quite beneficial, helped hearing other's views on how to draw!"
> "Learning from experience of others"
> "It gives the opportunity to ask questions and get feedback"
> "It gives you the chance to talk over anything you are not sure about, we went over how to set out essay questions and problem questions"
> "Excellent discussion"

<u>Cohort questionnaire surveys</u>

The survey questionnaires administered to course cohorts on those courses on which PAL ran produced some interesting and rich data. 250 students (around 40% of all students for whom PAL was available) completed at least part of the questionnaire.

Except for question (3) which specifically requested students respond to fixed categories, all questions in the survey were open-ended. Responses from question (3) are used to assess the extent of presence or absence of certain potential benefits as perceived by students (see figure 1 and table 2). An attempt is not made here to quantify responses to other questions within different categories however, rather to present the variety of benefits and shortcomings arising from PAL.

Categories of responses with illustrative quotes

- Question 1: "If you have been to three or more PAL sessions, what has made you keep attending?"

Advice from / perspective of PAL Leader

A motivation to attend PAL has been the opportunity to draw on the experience, knowledge and perspective of the PAL Leader:

> "I can ask specific questions to a person that has already been through the first year"
> "I like being able to have a chat with someone who has been through what I am going through now and being able to draw on the advice she has for us"
> "It was very interactive and [PAL Leader] reinforced what the lecturers had said, but from a different perspective"
> "Someone who has done our year and is very bright"
> "To gain a student perspective of the course from 2nd year students"
> "The fact that we could just talk to [PAL Leader] about our work and everything else, also asking questions and she answers in a student perspective"

Approachability of PAL Leader / sessions

Students have commented that an attractive feature of PAL sessions are their open environment, which is amenable to asking questions or admitting misunderstanding, including a favourable comparison with formal support structures (speaking with lecturers) and favourable remarks upon the approachability of PAL Leaders:

> "Easier to talk to them than most lecturers"
> "Being able to ask questions on current subject problems without having to go direct to the lecturer"
> "A good, easy atmosphere"
> "It helps me understand my work. She is very helpful with any problems I have and it's easier sometimes to ask a student than a lecturer"

Opportunity to decide subject matter

A useful feature of PAL can be the opportunity for students to determine content of sessions:

> "I felt I could ask about anything I didn't understand"
> "That our peer asks us what we would like to learn"

Help with assignments

Students report a reason for attending PAL is the ability to attend to assessed work, whether in receiving 'help', discussing approaches to an assignment or for the opportunity to improve marks:

> "I felt I had an advantage over the people who weren't attending, particularly with help on assignments"
> "PAL offers useful info and help with assignments"
> "Able to discuss assignment approaches and helps with test revision"
> "Because I find it hard to do coursework this gives me a chance to improve marks"

Understanding course subject matter

A motivation for attending, and benefit of PAL, can be the chance to enhance understanding of course material, resolving 'problems' with it and reinforcing course subject matter:

> "Helps when we didn't understand a thing taught in seminars"
> "Review of course - resolving problems I and others have - a different way of teaching"
> "Helped to reinforce knowledge and strengthen areas of knowledge"

Settling in to university

Students have reported PAL sessions were of value in terms of helping to adjust to (settle in to) university:

> "PAL sessions and the discussions have helped with settling into uni life"
> "At first it was helpful to get used to university and ask any questions about it"

PAL is 'useful' or 'helpful'

A common (and entirely sensible!) response - many respondents simply put 'PAL is helpful' or similar.

Timetabled or expected

Some students suggested that they attended PAL out of a sense of obligation:

> "Because I thought they were compulsory"

- Question 2: "If you have not been to PAL or to less than three sessions, please indicate why"

'Do not need help'

A common reason given for not attending PAL was a perception on students' part that the support offered was 'not needed', either because these students felt themselves to have a good grasp on the course or because of a preference for other support mechanisms:

> "I personally feel the work I have been set I have had a good understanding of and any aspects I don't know I speak to the lecturer"

PAL 'not helpful'

In a different sense, some students have reported that they have attended PAL, but not found it to be of any or enough help to them to be motivated to persist with it:

> "I found them to not be of any help to myself"
> "Haven't found previous sessions to be that useful"
> "Not felt that they really helped much. Would rather get on with work on my own or if there is a problem see the lecturer"
> "We first met in the student bar so that did not give me a good impression, didn't have the feeling of study"
> "The feel of the sessions was slow, made me feel I was wasting time"

- Question 3: "If you have been to any PAL sessions, do you agree or disagree that they contributed to the following?" (sixteen potential benefits rated)

The results of students' appraisal of the extent of presence or absence of the range of 16 potential benefits (as detailed in table 2 above) are shown in figure 1. This shows percentage of responses for (strongly) agree/ (strongly) disagree/ don't know for each item.

Table 3 shows the results of students' appraisal of the extent of presence or absence of benefits for each course, whereby benefits are ranked in order by course. An attempt is made to demonstrate salience for each item, in comparison with other items, by ranking items. Rankings are calculated by scoring each item whereby each 'strongly disagree' marked by a student scores a minus 2 through to each 'strongly agree' scoring a plus 2. In this way, an average figure per item per course is calculated, where 1 indicates the most highly ranked benefit through to 16, the least ranked. For example, in course 1, Business Information Systems Management, the most highly rated benefit of PAL by students is "Opportunity to air concerns away from teaching staff" whereas for course 5, LLB Law, "Opportunity to clarify basic concepts" is the most highly ranked benefit. This ranking table is intended to show both the extent of consistency of salience of emergent benefits between courses, as well as to provide data that may assess the reliability of the measure used.

Table 3 in fact shows a great deal of consistency between courses for items. For example, "Opportunity to clarify basic concepts" is the most highly-ranked benefit of the sixteen for four of six courses, and second and third ranked for the other two courses. The 'control' measure, "Remembering factual information (e.g. names, dates)" emerges as the least highly-ranked item (sixteenth) for two of the six courses, as fifteenth for two courses, and fourteenth for the other two courses.

The consistency of rankings between courses indicates that the scale is a reliable measure for assessing potential benefits of PAL sessions (students from different courses, at different administrations of the scale, responded closely to each other). The consistency of rankings also indicates that the benefits of PAL appear to be comparable between courses and disciplines. It is noteworthy that students of Conservation Science courses assess the benefits of their experience of PAL in a very similar fashion to those from Law, Computing etc. courses. This is even more striking given that within courses students had their PAL sessions taken by up to nine different PAL Leaders, and between courses, taken by thirty-four different PAL Leaders.

Figure 1: Extent of benefits of PAL sessions as perceived by first year students
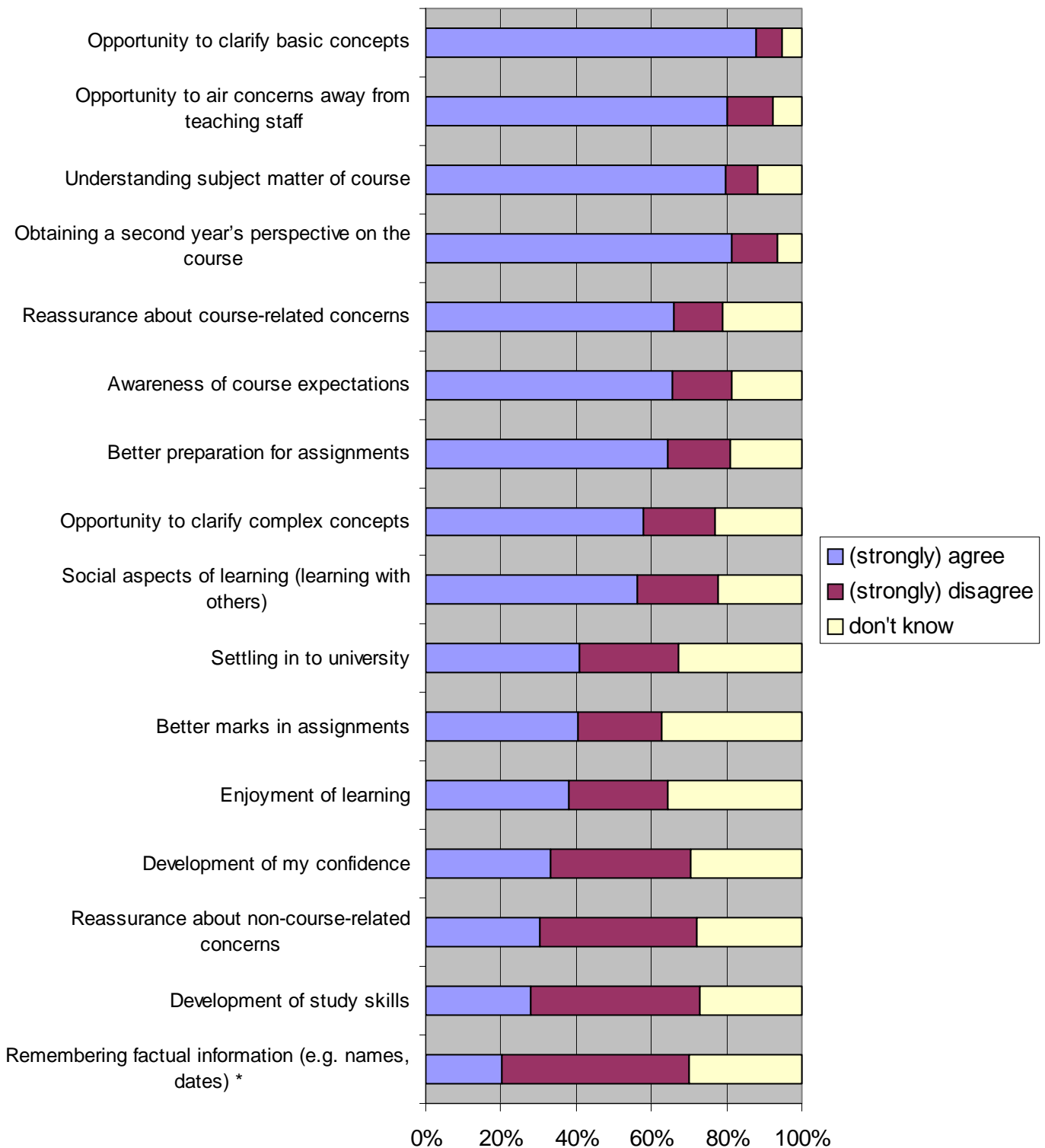
* It should be noted that the 'control' question – that asked about remembering factual information – has in fact a very low acceptance rate by students.

Table 2 : Rankings of potential benefits by course

rankings by course

Potential benefit	Course 1	Course 2	Course 3	Course 4	Course 5	Course 6	Average
Opportunity to clarify basic concepts	2	1	3	1	1	1	1.5
Opportunity to air concerns away from teaching staff	1	2	2	6	3	3	2.83
Understanding subject matter of course	5	3	4	2	5	4	3.83
Obtaining a second year's perspective on the course	10	4	1	4	Not included	2	4.20
Reassurance about course-related concerns	3	7	5	7	6	6	5.67
Better preparation for assignments	6	8	7	8	2	5	6.00
Awareness of course expectations	7	5	6	3	9	7	6.17
Opportunity to clarify complex concepts	4	6	9	10	4	8	6.83
Social aspects of learning (learning with others)	8	10	8	9	7	9	8.50
Better marks in assignments	12	13	11	11	8	10	10.83
Settling in to university	9	11	10	13	10	13	11.00
Enjoyment of learning	11	12	13	12	11	12	11.83
Development of my confidence	13	14	15	5	12	15	12.33
Reassurance about non-course-related concerns (e.g. housing, finances)	16	9	14	16	13	14	13.67
Development of study skills (e.g. essay writing, use of library, note-taking, planning time)	15	16	12	14	15	11	13.83
Remembering factual information (e.g. names, dates) *	**14**	**15**	**16**	**15**	**14**	**16**	**15.00**

Course 1 = Business Information Systems Management (Business School)
Course 2 = Business Information Technology (School of Design Engineering Computing)
Course 3 = Communication (Media School)
Course 4 = Chemistry and Environmental and Geographical Sciences (School of Conservation Sciences)
Course 5 = LLB Law
Course 6 = Management Foundation Course (combined Hospitality degrees - School of Services Management)

* It should be noted that the 'control' question – that asked about remembering factual information – has in fact a very low acceptance rate by students.

- Question 4: "In which other ways have you found PAL to be of value?"

General 'help'

A number of students responded that PAL has been 'helpful' or in other general ways:

> "Friendly help that I understand"
> "PAL is a good opportunity for students to discuss problems or find out things about the course"
> "Helpful to explain the basics from a student's point of view"

Advice from / perspective of PAL Leader

The value of the PAL Leader is often spoken of in terms of their 'perspective', broadly that they are able to view the course of study and university from the students' point of view. They are also reported as assisting with understanding course expectations (for example by showing their own old assignments), as explaining course material in student-friendly language and demonstrating appropriate 'coping' skills:

> "Offering a copy of the assignments they did in the first year to see what is expected"
> "The course from a different perspective - been there, done that, got the T-shirt, this is what you need to do, type of thing"
> "If we have any concerns about work generally the PAL Leader will go away, read up on it and then get back to us"
> "Someone on your level explaining things in your language"
> "Good to see how a second year copes with the course, identifies what is ahead for us"
> "Provides the ability to ask questions about the course from someone who has completed the first year - you can ask what is expected"

Understanding course expectations

The ability of PAL to assist with awareness of course and university expectations is reported:

> "You get a better understanding of the course and what will be expected of you"
> "Helps to see what is expected, what is coming your way and how seriously you should really take university"

Approachability of PAL Leader / sessions

The 'friendly', 'enjoyable', 'positive' atmosphere of PAL sessions is reported as being of value, as is the notion that PAL is a confidential place to voice problems:

> "A friendly and enjoyable environment"
> "It allows one to voice almost any problem in confidence"
> "When I need help I know I can ask my PAL Leader"
> "There is always a very positive attitude"

Help with assignments

Preparation for, and understanding of expectations of, assignments was also seen to be of value in PAL. This may, as in one quote, have occurred because students used the opportunity of being together in a classroom to work on assignments (with the PAL Leader on hand if needed) or because PAL was of help with revision, or helped with awareness of assignment expectations, structure or content:

"If we had nothing to discuss we could use the time to work on assignments and the PAL Leader would be there to help if needed"
"Some interesting revision sessions"
"Better understanding of assignment expectations"
"Assignment structure and ideas"
"PAL Leader brings in her 1st year assignments so we can have a better idea of what is expected of them, also revision classes have been very useful"

Understanding course subject matter

PAL was seen to be of value in assisting with understanding of (difficult) parts of the course:

"Having extra support, such as clarifying specific points that lectures might not explain very well"
"Particularly useful for understanding the tricky parts of the course"
"Helped to strengthen my knowledge and understanding of subjects"

Cooperative aspects

Students reported that PAL was of value for its cooperative character, enabling students to share ideas, approaches, experiences or problems or to help with getting to know fellow students:

"Able to use the ideas of others"
"Good place to air problems so class can discuss as well as lecturer/ PAL Leader"
"Students at PAL can share their experiences"
"Enables you to get to know your seminar group better because you help each other"
"Understanding how other people on my course approach work e.g. assignments"

Settling in to university / social aspects

The social aspect of PAL is also referred to in terms of 'gelling' of a seminar group (same composition as the PAL group), encouraging socialisation and getting to know second year students:

"Helped with the gelling of our seminar group"
"Getting to know 2nd years"
"Socialising with seminar group - we all went out as a PAL group which was good to do in the first weeks of term"
"Able to get to know seminar group - more individual style of learning also"

Reassurance about the course

PAL has also appeared to offer a reassuring function to students, whether in terms of encouragement and support offered by the PAL Leader, understanding work, increasing self-confidence about persistence and the opportunity for guidance through the first year:

"It really helps to have a chat to someone who went through exactly what you're going through and made it when you think you are having a bad time of it"
"Reassures about work I haven't understood"
"Makes you feel confident that you can make it to the second year because the PAL tutors were also in my position"
"It's good to have someone other than a teacher to guide you through the first year and sort out any worries you have"

- Question 5: "Which aspects of PAL do you dislike?"

Lack of structure

A common complaint from students has been that PAL sessions sometimes lack structure, plan or learning outcomes:

> "Sometimes our sessions are quite unstructured which seems a bit of a waste of time"
> "There doesn't seem to be a structure to sessions"
> "There is not a clear plan - better structure needed"
> "The PAL Leader should have a clear plan and learning outcomes otherwise it is a bit pointless"

Concern about productivity

Some students have also commented that they saw PAL as being not especially productive, because of its relaxed character, an undue focus on 'moaning', its limited use when demands on students are low, or as only being of use for tackling assignments (and hence not of use when assignments are not due):

> "The attitude was too relaxed, should be more serious to solve academic problems"
> "Useful to moan about our workload but not sure how much else we got done"
> "PAL is extremely valuable initially and at the end for revision but when there is not much to do it isn't"
> "It's handy when we have something challenging to do because we can discuss ideas. If there is not a big assignment it can seem like a waste of time."

Repeats work unnecessarily

Students have also suggested that PAL may unnecessarily repeat that which some students already understand, or attend to one aspect of a course when other more difficult areas were of greater concern:

> "Often repeating what we know or have recently learnt"
> "The few sessions I attended covered very simple and straightforward aspects of the course when the class were struggling in other areas"
> "Don't do work we have already done and understood"

Concern about expertise of PAL Leaders

Some students expressed concern about the expertise of PAL Leaders, including that information conveyed has been incorrect or contradictory or that the potential for this to occur exists:

> "Sometimes information given is incorrect and contradicts lecturers"
> "That we are being given advice and guidance about the course by people with no more qualifications than ourselves - they could fail their degree"
> "I have had some misguidance on an assignment"
> "Students do not have the knowledge of lecturers so we could be misinformed"

Comment on PAL Leader

A comment was also made about a PAL Leader:

> "PAL Leader was often unprepared and not confident"

- Question 6: "What would you like to see improved or developed in relation to PAL?"

Timetabling

Students suggested better scheduling of PAL would help encourage attendance and awareness of time and location of PAL:

"Make times of sessions better i.e. not first lesson of day"
"Better timetabling to increase turnout"
"Have had problems finding PAL due to room changes"
"PAL should be timetabled in a place where people want to go to it"

More assistance for PAL (Leaders) from teaching staff

Students suggested that PAL would benefit from heightened input of teaching staff to the scheme:

"There needs to be more input from teachers to the PAL Leaders"
"More information given to PAL Leaders from staff"
"I think a tutor needs to be there to explain topics in more detail"

Better structure to PAL sessions

Again, an increase in structure to PAL sessions was desired. This, it is proposed, would help students know what is coming up in future sessions, increase productivity of PAL sessions, enable better matching of student concerns to PAL session content, and make sessions more interesting:

"Perhaps a more structured approach would help"
"Better constructed lessons so that each week you knew what was going to be discussed"
"PAL is not organised enough - a specific plan is needed for each session"
"Not structured enough - you feel you have not got that much done in sessions"
"Could have more structure i.e. agree on what we are going to discuss in the next session so we can bring in areas of concern"
"The PAL Leader needs to plan their lesson to make them more interesting"

Request for increase in PAL

Encouragingly, some students requested an increase in provision of PAL:

"More PAL sessions"
"PAL twice a week"
"Would like more of the same, just what is needed to get through first year"
"More time with PAL, one hour is often not enough"
"Would it be possible to have this scheme next year?"

- Examples of 'any other' comments made by students, which support other statements made above, include:

Positive remarks

"PAL has been very helpful and very well run!"
"An excellent idea that has enabled us to settle in!"
"Very good idea, helpful, approachable and informal"

"I think it is an excellent scheme on all levels and I have really benefited from it this year"
"PAL has been enjoyable and has been something I look forward to each week"
"Good atmosphere and develops confidence within the group"
"[PAL Leader name] rocks!"

Negative remarks

"Not enjoyable, not helpful, not needed"
"I find that PAL is a good concept but fails when put into practice. The time could more usefully be spent on assignments. When problems do arise people generally help each other and don't really need to attend PAL sessions."
"I preferred to get on with work on my own which I think was a better use of my time"

Ten semi-structured interviews were conducted with first year students who had experienced PAL.

Broadly, the sorts of benefits of PAL first year students spoke of fall into the following categories:

- Adjusting (settling in) to university
- Informality/ openness of PAL
- Co-operative aspects
- PAL Leader perspective
- Understanding course subject matter
- Assignment and exam work
- Awareness of course direction and expectations
- Study skills
- Development of confidence / reassurance
- PAL Leader – staff liaison

Shortcomings fall into the following broad categories:

- Initial misconceptions
- Resistance to or limitations of cooperative learning
- Dissatisfaction with the content of PAL sessions
- Dissatisfaction with the operational aspects of PAL
- Lack of structure, format or clear aims to PAL sessions
- Incorrect, inappropriate or unhelpful advice or perceptions received in PAL sessions

Quotes are numbered for reference back during the Discussion.

Benefits of PAL

Adjusting to university

Although interviews were conducted into the Spring term and a number of students asserted that they had trouble remembering the start of the Autumn term, the point was made on a number of occasions that PAL had assisted with adjusting to university. This occurred through sharing of experiences, getting to know others, making friends with and socialising with seminar group, reinforcing induction issues, and understanding others' viewpoints:

> "It was very difficult starting [university]… [PAL] helped me settle in quite a lot, we talked about our experiences in the first PAL session, how we'd moved in and how people were getting on, it was really good to be able to do that"

> "PAL helped a lot getting to know my group because… it meant that people were forced together and met when it wasn't a lecture and actually talked to each other and then it meant that people went out with each other in the evening too"

> "[PAL is] a good idea because it settles in new students better because it's students talking to students… and my PAL Leader was really good at helping that work"

> "The trouble is with a lot of things that are explained very early on is that they just don't sink in so PAL is useful to explain these"

> "It wasn't just about the course, it was about making friends, going out, clubs, it was really like induction all over again"

> "People became a lot closer through PAL, I'm not saying just through PAL but it really genuinely does help"

> "You get to know each other on a more personal level which helps… you can understand who thinks what and their views on things"

Informality/ openness of PAL

Interviewees often spoke of an appreciation for the relaxed, informal, open character of PAL and how this enabled them to be more open and honest, such as being able to admit misunderstanding or problems (including being able to raise very basic points), ask questions, or even just to have the confidence to speak at all, and how this in some cases contributed to an increased confidence or served a reassuring function:

> "When you're in a lecture or seminar you don't feel comfortable asking questions… but I found it much easier talking [in PAL] and it's just a friendlier atmosphere in PAL sessions… which is good because you just think "phew!" this isn't that horrible after all"

> "There are a lot of people who won't say anything in seminars but they will actually talk in PAL, so it definitely allows people who may be normally nervous or anxious to come across"

> "When people realised it was nothing to do with lecturers or teaching then they became a lot more open and say what problems they had"

> "When you're in the first year it's hard to… raise points in seminars and lectures, with all your friends and other students and new people there there's the whole, nobody wants to speak out, but in PAL nobody minded saying anything, really it was easy… to get the points you wanted to get out"

> "People come up with points [in PAL] even if they don't understand the most basic of things you can say 'look I'm really not too sure' "

> "It's easier to ask questions [in PAL], when you're in a lecture or seminar you don't feel comfortable asking questions in front of everyone and the teacher sometimes explains it like you're a bit stupid, but I found it much easier to talk to [the PAL Leader] and it's just a friendlier atmosphere in PAL sessions"

> "People are coming up with points even if they don't understand the most basic of things you can say 'look I'm not really too sure' and nobody sort of looks at you because we have [lecturer] if you ask a question even if it was a really good question, he'd look at you like you're the dumbest kid in the world and it was really off-putting because you sat there through the whole seminar and if you don't understand something at the beginning it makes the whole seminar pointless really but you could just go to PAL and say 'look I'm not really too sure on this' and they're more than willing to help you out"

Co-operative aspects

Whilst often in interviews the cooperative nature of PAL was often either hinted at (or it was perhaps unclear to what extent it was present) in a number of cases students made explicit (an appreciation of) the cooperative aspects of the PAL session. These included general comments regarding the participative nature of discussion, the ability of students with different strengths to assist one another, the sharing of ideas enhancing assessed work, and again the social aspect of PAL was mentioned:

> "Everybody chipped in with their ideas, some obviously as well had the wrong point but… it was like a big forum for ideas"

> "…people contributed what they had, the people that were, say, more business-oriented or computing-oriented brought in their point of view which helped the people who weren't sure… understand what was happening"

> "You can knock ideas around, you can have an amazing assignment [written] and you've got all the points in your head but then somebody just chips in with one idea and you think 'that really makes sense' and it brings it all together"

> "We finished at 10 o'clock on a Friday and then didn't have anything until 1 o'clock when our PAL session was and virtually everyone waited around for the 3 hour gap which is really unusual for students to wait around that long! Because it was an enjoyment thing because you get to go along and have a… not have a laugh as such but in a way enjoy yourself, you can discuss ideas, talk about the weekend after you've got all your work done, so it's an enjoyable thing, it's not a chore to have to do it… we always used to go to the bar after the PAL session"

The role of the PAL Leader in encouraging cooperative learning in PAL was also referred to, whether in group management or in drawing out ideas from the group:

> "[The PAL Leader] said the best thing is to maybe split yourself up into smaller groups and discuss… and then all come back together which helped us a great deal with working together"

> "[The PAL Leaders] helped us to discuss [course issues] as a group, they didn't really do anything, they didn't tell us the answers or anything they just got us to actually talk to each other about the problems we had as opposed to just sitting on our own which is definitely very useful"

> "The PAL Leader helped clarify things… and he did coax a lot of things out of us, he didn't just give it to us… in a way he'd play stupid to help us get the answers because it's always more satisfying when you get the answer yourself"

PAL Leader perspective

The PAL Leader was frequently referred to as being a source of advice or knowledge for first year students. This occurred through the passing on of experience (including how to improve on their mistakes), through PAL Leaders having a heightened, student-centred understanding of the first year experience, through affective closeness between students and the PAL Leader, through being able to offer reassurance, and through an altruistic attitude:

> "The PAL Leader described their own experiences and helped us to improve on their mistakes and use their experience"

> "The fact that the PAL Leader knows what problems she had in the first year, she knows what problems we're going to be having now, that makes it much easier because then she knows what we want to know rather than what the lecturers just seem to think we should know"

> "Where PAL works is getting the benefit of the experience of someone who's just above you because after all it's very difficult for tutors to go back in time and get rid of all that mass of knowledge they've got and focus back down to the first year level!"

> "As a PAL Leader it's quite good from a psychological slant for them to talk about their failings, talk about the things they messed up on and didn't understand because that way you break down barriers, there's very few of the tutors that are like that but

with students together we can do that, we can say 'well actually I was crap at writing essays at first but I know now why that was' "

"[The PAL Leader] knew it was hard to learn and he understood where we were coming from and he made it simpler for us to understand. Because he was just a second year when he came here a year ago he had the same anxieties and expectations as us, so he could relate to that and try to make us feel a bit more at ease"

"It was good the way [the PAL Leader] came across as not like the lecturers - teaching teaching teaching, read this read this read this - he showed us the other side to university life, and that doesn't come up anywhere else on the course"

"You come out of a lecture or seminar and there's all these ideas and you're thinking 'Oh my God how does all this fit together' and then you sit down in PAL and say you don't understand this at all and they can say 'this is how I understand it' and 'I had the same problem' and give you examples"

"It's not just a second year coming along and acting like they know loads more than you, they honestly want to help you and I know all the people who have applied to do it this year was because we found it so beneficial we want to pass it on"

Understanding course subject matter

This 'meaning-oriented' issue was mentioned in interviews, whether as a stand-alone issue or sometimes in association with preparation for an assignment. PAL sessions could be of value, for example, to review and reinforce lecture and seminar material, to get to grips with technical terminology, seeing linkages, and in general terms:

"The lectures and the seminars give you the content, what you need to know, but then if there's anything you don't understand you can run through it in PAL… and it makes it all make sense"

"Making sense of legal terms comes up a lot in PAL because people get confused and they need to understand the meanings and the differences and what's important and relevant"

"[The PAL Leader] went through what it needs to look like, showed us on the board.. so he clarified things for us and helped show the linkages"

"A lot of us [first year students] have our stronger units and a lot of the guys have been explaining things to me in PAL sessions and it makes it a lot easier to understand"

Assessed work

Students reported that attention to assessed work was a beneficial feature of PAL sessions. The PAL session might focus on the content for assignments (including focussing on specific points which require inclusion), analysing assignment briefs, and for revision; there is also the implication that PAL can help achieve high marks:

"Working on assignments is reassuring… working out the basic content, we did a few spider diagrams on the board and we broke down all the points and expanded on them"

"As we got into PAL we started talking about assignments, going over topics… we went over the assignment briefs and all the different things we had to do, we didn't go over the actual assignment but an example one and it was really useful… and I managed to get 75%"

"We've been going over old exam papers and been doing revision and it makes it easier to understand"

Course directions and expectations

Discussing where the course is headed, acquiring an overview of the course as a whole and what is required from it both within the first year and on into the second year (and placements) was a regular feature of many PAL sessions, as were awareness of standards expected by lecturers, and of protocol, such as whether and how to approach staff:

"It was good finding out where the course goes from here, what we'll be doing, if it's harder and how the subjects change [etc.]"

"[PAL] helped with… knowing what sort of standards and what the lecturers were expecting to deliver to them… and also gave a general overview because the first year you're not sure what's going on obviously whereas the second year students are applying for placements and they have done the first year already and know how it links on"

"Early on you're not sure if you can go and what sort of questions you can ask lecturers, it's quite closed doors everywhere you're unsure whether to actually knock on the door and ask people, but certainly the PAL Leaders emphasised that you can go and knock on the door, they don't mind and even if you weren't sure about asking the lecturers questions you could ask the PAL Leaders…"

Study skills

Students referred to PAL being of benefit in supporting study skills, such as practising presentations, exercises to ascertain quality in assessed work and revision techniques (for example time management):

"[The PAL Leader] talked to us as well about presentation skills, what he did when he presented and we also practised presentations in the PAL session… that got people more sure about how to present in front of a room full of people"

"We looked at two different sample essays and marked them and looked at why each was good and talked about why each was good and it got us thinking about the difference between a good and a bad essay"

"We were given a revision timetable and [discussed] questions about how to revise and how long to spend on each question and went over past exam papers"

Development of confidence / reassurance

An interesting quote illustrates how one student felt that PAL could encourage the development over time of self-confidence, in terms of preparedness to raise one's voice. It is suggested that PAL is able to inculcate the idea that it is permissible to 'speak out' even if one may not be 'correct' on an issue:

"There were some people that just never spoke out until they'd been to a few PAL sessions and got the idea of actually nobody really minds if I speak out and I say the wrong thing because we all do it all the time, that was the shyness and the 'Oh I can't say anything in seminars and lectures because I don't want anybody looking at me like I'm a total plonker' but once you've said a few things in PAL and they've mostly been right but even if they're wrong nobody's said anything just said 'yeah, you're wrong but have you thought of it like this' then… when they come into a seminar they begin to raise points and come forward"

PAL Leader – staff liaison

PAL Leaders were also referred to as being a useful intermediary between first year students and staff. In the experience of PAL co-ordinators at Bournemouth, this role has in many cases come to be a productive and regular feature of the work of PAL Leaders:

> "The PAL Leader is like a mentor, helping you out, for instance we're finding it really hard to get notes off [lecturer] but [PAL Leader] said 'oh I'll go and have a word with him and see what I can get out of him' and I think… they're more open to give the PAL Leader that information on behalf of the whole class"

Shortcomings of PAL

Initial misconceptions

It was reported that first year students may have had misconceptions about PAL and PAL Leaders, either that PAL Leaders may adopt a superior stance or that they would take a teacher-like role:

> "[There was a misconception that PAL Leaders were] trying to be above us, I don't know where it came from but it's the automatic thing to put up the barrier – everyone was trying to work out: 'a second year teaching us *what*? They've only been here a year they don't know that much' "

> "You expect the teacher-student thing, some people are worried that it's going to be that teacher-student relationship but it's completely the other way round, you go in and talk about what you want"

Resistance to or limitations of cooperative learning

In contrast to positive appraisals of the participative, cooperative nature of PAL, some also disliked this character of the scheme. It was at times felt that PAL would have been improved by PAL Leaders 'teaching', or that because of a lack of knowledge on the part of the first year group cooperative learning was difficult to achieve. Some students were averse to explaining their ideas to others, and sometimes there was the perception among the group that the PAL Leader would provide a teacher-like role:

> "It was good because it was less formal, he did allow us to chat, but I think there should have been more of a teaching structure like lecturers have, it was basically about what we wanted to know and I would have preferred it if he had taught us"

> "[The PAL Leader] could only explain so much and certain people in our seminar group didn't know the work and didn't understand anything and so they couldn't ask any questions and so they stopped coming"

> "Some people don't like telling other people what they know so it was quite hard when only some people turned up and then when the others did come you don't really want to make the effort for them because they didn't make the effort for you"

> "I think our group relied on the PAL Leader far too much – they're just there for support and not to answer all your questions"

Dissatisfaction with the content of PAL sessions

One comment suggests that PAL may at times be only a substitute for what may occur naturally in an informal setting:

> "[It is] a balance between having a good talk… and it not just becoming a complaining session or something you could do just with friends in the café"

Dissatisfaction with the operational aspects of PAL

Comments were made regarding the operational aspects of PAL (which do not pertain to the 'PAL session'):

> "The problem that I found was that the timings were confused at the start and it sometimes wouldn't be on and then there would be a lot of miscommunication"

> "It was right in the middle of a day where we didn't have any other lectures. The problem is that you wouldn't want to come in on your 'lazy' day"

> "Timetabling was OK at first but when it changed and PAL was on a day when there wasn't anything else, no one turned up after that…"

Lack of structure, format or clear aims to PAL sessions

Some students referred to the negative side of the informal, unstructured character of PAL, including a suggestion that this may at times heighten confusion:

> "We went to one PAL session and they were really under-prepared and I came away more confused and they didn't understand it either so it didn't help"

> "It needs structure so you know you're there for a good reason and what you're going to achieve and also allow space for extra-curricular talk"

> "It's really good how it's informal at the moment but maybe make it more structured at the beginning so people know what they are going to be covering"

Incorrect, inappropriate or unhelpful advice or perceptions received in PAL sessions

It was suggested that PAL did have the potential to give misleading information regarding assignments, or in conveying a mood (towards the course?) of PAL Leaders:

> "What they did tell me in one PAL session, when they said this was the way I should approach a particular essay, I did use it and I didn't get a very good mark for it, I'm not blaming them but…"

> "I must admit I think some of the PAL Leaders were a little bit depressed themselves which isn't a great thing to pass on"

2. Assessment of student perceptions – PAL Leaders (second year students)

<u>Reflective forms</u>

Data was gathered from PAL Leaders through post-session reflection forms regarding the environment of learning in PAL sessions, which is largely outside the scope of this study. As to what PAL Leaders considered to be benefits and shortcomings of PAL for themselves and their students, some useful data was obtained: categories of response together with illustrative quotes are given below.

Benefits to and shortcomings for first year students (as seen by PAL Leaders)

Adjusting to university

PAL Leaders indicated that issues pertinent to adjusting to university, some course-relevant, others generic, were discussed in PAL:

> "Discussed various queries - Fresher's Week, Accommodation, transport etc."

Course direction and expectations

It is suggested that PAL sessions also began early on to look at course expectations and study skills:

> "Students were beginning to think about what the course will entail in terms of presentation of written work"

Assignment help

Preparation for assessed work was a common feature of PAL sessions; in PAL students utilised course materials (textbooks), students' confidence was increased, essay structure and content was attended to, as were the differences between different types of assessed work:

> "The discussion on one of the assignments was productive as the students had textbooks so the discussion was backed up with authority"
> "Students made to think about the meaning of quotes in assignment question"
> "Between now and Christmas I expect the sessions to focus specifically on assignments due in the next few weeks"
> "They left with more confidence after talking through the assignment"
> "Group seemed happy tackling assignment - recapped essay structure, applied to current assignment and identified themes to be covered"
> "Very good session - discussed the difference between essay and problem assignment questions"

Understanding course subject matter

Reference is made to work directed to understanding course material in a participative fashion:

> "Some members of the group participated and gained a greater understanding of the subject"
> "Actually got them thinking about how they were able to reach the decisions they did"
> "A difficult area of contract law was broken down into its component parts"

Cooperative aspects

The cooperative nature of PAL is referred to in a positive light by PAL Leaders:

> "The group were extremely talkative and the situation was very relaxed"
> "The class was very involved - working in pairs and as a whole group"
> "Very pleased they all worked well and contributed whenever they could"
> "The group were willing to talk at all times and to answer my questions"

Informality

PAL Leaders suggested that the informal, relaxed nature of PAL was constructive, and of value to PAL Leaders as well as the group:

> "Very friendly, comfortable atmosphere with maximum input on both sides"
> "Extremely flowing with good atmosphere"
> "Everybody was getting along and many good issues were raised"
> "A very relaxed, informal and productive session"
> "The group is easy to manage as it is much more like a group of friends chatting"

Students deciding topics

It is suggested that there was a development of ownership of PAL sessions by first year students:

> "The group are becoming more definite of what they want out of the sessions"

Lack of structure

PAL Leaders remarked, in a negative sense, that their PAL sessions lacked structure:

> "I felt the session lacked structure"
> "Sessions largely without structure - although the majority of discussion is law-based"

Benefits to and shortcomings for PAL Leaders

Revising first year material

PAL Leaders made reference to the value of PAL to themselves in terms of reviewing course material:

> "Useful for me to go back over the subject"
> "I had forgotten what we were covering so it was PAL for me as well!"

Personal development

PAL Leaders also mention the value of PAL in self-development, in that it helps develop self-confidence, ability to speak in front of a group, presentation skills, and that such aspects are in themselves rewarding:

> "I am glad that I am getting more confident about running PAL sessions - I am much more relaxed about talking to a group and running discussion"
> "Good for my presentation skills"
> "Nice experience to see that I can run such a large group of people"
> "Feel confidence is increasing as time goes on"

Limitations of cooperative learning

PAL Leaders refer to limitations in being able to achieve cooperative learning as a shortcoming of PAL; they felt in some instances that they were drawn, pressured or by default required to lead sessions, or provide an inappropriate amount of help. This may be because students are or appear to be unresponsive, or because of inappropriate expectations on the part of the student group:

> "Discussion was often lead by me due to being only the second week of term"
> "They need to be spoon-fed, lack initiative to think without prompting"
> "I was worried about how dependent the group seem to be on me - it needs to be emphasised again that I am not a teacher!"
> "Don't think I could have done more without writing the assignment myself"
> "It can be very difficult to get responses from students, no matter how friendly or apporachable you come across"
> "The students expected to be taught"
> "Some students are very hard work such as problem ring leader"

<u>Questionnaire survey</u>

The questionnaire survey of PAL Leaders was conducted with a group of 12 PAL Leaders prior to holding a discussion group about PAL. Some limited information was gained from this survey.

- What has been your experience of PAL so far this year?

Positive aspects

PAL Leaders suggested that positive outcomes for them had been an increase in confidence and the value of being involved in a 'new experience':

> "Improves and builds confidence of PAL Leaders"
> "Students find it easier to relate concerns to PAL Leaders than lecturers etc."
> "New experience, get to know other people"

Negative/ difficult aspects

PAL Leaders suggested that PAL can interfere with their own work, expressed the diffiulty of finding it hard to involve the student group, mentioned the difficulty in attending to all aspects of the course and problems caused by changes in the course (from when they studied it):

> "Can sometimes get in the way of own work, sometimes difficult to keep students interested"
> "Sometimes so broad - hard to cover everything"
> "Structure of course changed from year before"

- How is PAL different from tutor-led sessions?

When asked how PAL differs from formal structures of the course, they pointed out the informal and approachable nature of the scheme, the student-led character of the scheme (though not remarked upon whether this was felt to be positive or negative), that PAL is more centred on self-managed learning, and more participative:

> "More informal, relaxed"
> "It is more relaxed, you can get things wrong without feeling a fool"
> "More led by students' preference than a definite structure"
> "Encourage them to learn for themselves rather than tutor-led"
> "More debate in PAL sessions"
> "More informal, more approachable"

- What do you think students gain from PAL sessions?

PAL Leaders suggested that they felt students gain a range of benefits, such as benefiting from other students' (or PAL Leaders') perspective, a better understanding of the course, gaining ideas and techniques for assignments, the informal nature permitting openness, helping adjust to university life, 'self-belief' and getting to know their fellow students:

> "Knowledge from a student's perspective - relate better"
> "Better understanding of the course as a whole"
> "Different ideas and techniques for assignments etc."
> "More informal therefore more willing to voice concerns"

"Helped them get used to university life"
"Self-belief"
"Interaction with class-mates - get to know them quicker"
"Opportunity to chat, learn on an informal level"
"Help with assignments"
"Informal approach"
"Greater thinking about the course"
"Assignment tips and the way ahead"
"I think it has had a positive effect on those that have attended even if they don't realise it"

- What do students dislike about PAL?

PAL Leaders suggested that students see as shortcomings of the scheme a lack of structure to PAL sessions, perceiving sessions as lacking usefulness, and a dislike of the non-teaching ethos of PAL:

"Unstructured sessions"
"Some feel there's no point - don't need the support"
"Timetable of PAL session"
"Fact that we read the same subject as them and know just as much as them"
"That we don't teach"
"Don't see the point, not helpful"

- What sort of things are PAL sessions good for?

PAL Leaders remarked that PAL sessions are of value for planning and discussing ideas relevant to assignments, learning about techniques not conveyed elsewhere such as revision tips, students being able to learn from one another, and helping a student group to cohere (including this leading to heightened sense of 'security'):

"Covering assignments - planning, discussing and sharing ideas"
"Brainstorming - clarifying any misunderstandings"
"Techniques not actually taught on the course like revision tips, essay writing"
"Learning from each other"
"A student's view of the course"
"Come together as a group"
"At the start it helped bring people together. They feel more secure with everything - a place to voice their concerns if they have any."

- What sort of things are PAL sessions not so good for?

PAL Leaders felt that PAL sessions are not appropriate for teaching or other direct provision of answers:

"Teaching, telling, giving answers"
"Formal teaching"

- What have you got out of being a PAL Leader?

PAL Leaders suggested a range of benefits to themselves (similar to those mentioned above) such as increased presentation, communication and organisational skills, and heightened confidence:

> "Presentation skills and communication skills, organisation"
> "Better communication skills, more confidence with speaking in front of a group"
> "Gained in confidence i.e. from being focal point of attention. Sometimes being the only one talking makes you realise just how much you actually know."

- What have you found difficult about being a PAL Leader?

PAL Leaders suggested that difficult aspects of their work included variability in attendance, problems arising when they didn't 'know the answers' and when covering subjects about which they had little knowledge or due to changes in the course:

> "Variable attendance"
> "Can be problematic when you don't know the answers"
> "Covering subjects that we have little knowledge on"
> "Depth of knowledge - there have been a number of changes in the School - new lecturers have different ideas/ approaches to their teaching"

Interviews and discussion groups with PAL Leaders provided the most useful source of information about benefits and shortcomings of PAL from the perspective of PAL Leaders. Six discussion groups were conducted with groups of PAL Leaders.

Benefits to first year students (as seen by PAL Leaders)

Help with assignments

PAL Leaders suggested that their students benefited from PAL in terms of awareness of methods of approaching assessed work (in a cooperative manner), raising concerns relevant to assignments, assisting with tests (in this case in respect of understanding legal terms), and of offering motivation (a 'kick up the backside'):

> "I think it's quite helpful for them in terms of how to write assignments and they often say when they've got problems with… a particular assignment"

> "Through PAL we bring them together, we force them to talk about an essay question, so none of them have to give away their best examples but they can talk about the problem and make sure they all understand it properly and how to answer it"

> "Some of them have said it has helped them in one of their tests, the quiz I prepared for them helped them because it was about defining terms and that is what the test is about"

> "Normally we look at assignments which are due in next week and alright they should have done the work already but in a way they come to PAL sessions to get a kick up the backside and a push in the right direction"

Offering advice and perspective

PAL Leaders refer to their own provision of advice ('tips') such as time management in respect of research methods, and the nature of their responsiveness to student concerns:

> "We can give them tips they can take into the second year… we did one PAL session on time management, telling them different techniques like how and when to start doing their research, when to start writing the essay, giving themselves time at the end to correct it, the usual stuff but it's good because they had quite a few questions about that"

> "There's a big panic if you get behind and it gets worse because you're scared about going to see your teacher because you think they're going to [tell you off] but they can come and see us and go 'aargh, help, I'm well behind, I don't know what I'm doing' and at least we're not going to go 'well you should have done this by now, bla bla bla' we're going to go 'yes, don't worry, we were there' "

Understanding the course direction and expectations

In part provided again through PAL Leaders offering advice and a perspective, PAL sessions were seen as being of benefit to students for enabling an understanding of the operation of a course and expectations of assessed work, and awareness of course direction into the second and third year (including finding placements):

> "I think they're getting a better understanding of how the course works… when we sat down and said 'well what happens is all your essays and research and exams will be

put together and averaged' and no one *knew* that, no one knew what they were really aiming for and what importance was on what"

"We had a good chat last time about where the course goes in the second year and then the third year because when you're in the first year you can't really see that far and you get a bit swamped"

"They're asking a lot of questions about the second year, what modules are different, what the exams are like, do we have the same lecturers, housing issues…"

"They are asking about research projects, what you do for it, how do you look for placements, how do you approach the second year and getting into gear for the second year"

Non-course-related issues

PAL sessions were at times used to discuss non-course-related issues, such as housing and finances:

"We did discuss housing and everything that's involved there, it wasn't a big feature of PAL but sometimes people just wanted that reassurance or suggestions there"

"Some people were quite anxious about finances and I tried to give some advice about not being complacent and how to be careful and plan and so on"

Cooperative learning

PAL sessions were referred to as enabling cooperative learning, which it is suggested helps to encourage students' thinking, to ascertain gaps in knowledge and how to address these, to enhance learning by students benefiting through one another's knowledge and understanding, to develop a more social view of learning, and to make decisions:

"We don't restrict the conversation we just let them talk and if they run out of ideas we just throw our ideas in and they talk about that and when there's no more to say there's no more to say but it gets them thinking, we usually start off with a brainstorm"

"We say 'how much do you know' and we write it all up… and they find the stuff they know isn't enough to answer the question they want so we're sort of saying 'so what are you missing?' and that's when the ideas start coming out"

"They all benefit from each other's knowledge and each other's understanding and PAL promotes that and I think it's a good thing because a lot of people come to university thinking it's like a one man competition, just save yourself"

"There's all this talk about plagiarism and the lecturers are very strict on it but it seems like it's creating an unhealthy atmosphere where people aren't keen on learning from each other, so PAL is like an alternative where people are put in a situation where they're forced to share their knowledge and help each other to understand"

"I do small group work and… luckily everyone in my group is willing to get on with it and they have a fair amount of knowledge"

"I still feel part of [PAL sessions] but I think it's a good thing to feel redundant because that means they're helping each other, I might sit at the back and if they've got a problem they can ask me"

"PAL is good for groupwork, brainstorming ideas and for assignments, you can sit there and make decisions and get discussions going"

Generating group cohesiveness/ settling in to university

PAL Leaders reported that PAL helps with group cohesiveness, enabling groupwork and getting to know others (this in turn helping with settling in to university):

> "I think PAL helped to make the first year more cohesive, especially at the beginning when we got them all working in small groups"

> "I used various [activities suggested in PAL training]. It helped them to work as a group to start with, like putting them in different sized groups and getting them to talk to each other… I think it didn't just help fill in the gap it helped them become more together"

> "It helps with getting to know coursemates quicker, in PAL you get to know people quicker, the interaction helps them settle in a bit more"

Study skills

PAL Leaders have suggested that PAL is of use in developing study skills, such as using the library, presentation, exam revision and techniques and essay skills, and general university expectations:

> "We have gone to the library quite a few times… we point out books and show them how to find the books that aren't in the unit guide, there was one girl who couldn't find any books and I took her with me and showed her how to tell if a book was relevant by using the index and actually opening the book and looking at the content page!"

> "Early on we looked at presentation skills and essay writing, which is good to do early on before you've got a lot of work to do and I think it got them tuned in to what it was all about and what is required from university"

Developing confidence

It has been suggested that PAL can enhance confidence in students in voicing their thoughts:

> "I think they're got more confident in voicing their thoughts through PAL, so probably when they go back into their seminars they speak up more because they have to speak up in PAL"

Shortcomings of PAL for first year students (as seen by PAL Leaders)

Problems with structure of PAL

It was proposed that the lack of a definite structure and focus to PAL sessions could present PAL as unprofessional or unstructured (and therefore ineffectual):

> "[It would be an advantage to have] set topics, having something definite each time, I think sometimes they don't really, I mean I'd get the impression if I went to PAL that sometimes it isn't professional, it wasn't structured"

Lack of importance of PAL

PAL Leaders indicated that at times students perceive PAL as lacking in importance:

> "You know that sometimes people see it as one of those woolly things on a course that doesn't really matter"

> "The fact that we didn't have a very good timetable slot didn't help… because you might hang around for a core unit of the course but you probably won't for PAL"

Benefits of PAL for PAL Leaders

Developing academic/ personal skills

PAL Leaders reported that PAL has for them improved presentation skills, confidence and ability in group speaking and confidence obtained through trust having been placed in them, professionalism in approach, and an appreciation of social aspects of learning:

> "PAL has definitely improved my presentation skills, actually having to talk to them and it just gains your confidence the fact that once a week you have to introduce what you're doing and talk to the group and be responsible for that"

> "[The PAL session] is a professional type setting, because in a professional setting you'll never have someone over you who judges every word you say… it's been really good, I've improved my abilities to speak in front of people"

> "My confidence has gone up because… when you've got people who feel confident in you, the fact someone trusts us or you get positive feedback, that's nice to know, and… they feel they can come to use with anything, that's a good feeling"

> "It's helped me communicated better and it's made me calmer in my placement interviews because I've got that experience of walking into a room full of people I don't know and having to explain myself and I found that very helpful"

> "PAL has improved and built my personal confidence, at the start of the year I was nervous taking a seminar, facing first years, over time it's got easier and to be pretty good"

> "I don't think I even realised how important [cooperative learning] was at the start of PAL, it's only now that I've experienced it that I've realised that and… now I will talk to a number of people in my year and share ideas and go to the library and it's definitely had an impact on my studies"

Utilising the experience

Many PAL Leaders have mentioned that they are asked about PAL in placement interviews, some saying the subject has dominated their interviews, as well as that the experience of PAL had helped with the skills themselves needed for interviews:

> "I've been asked about PAL in all of my placement interviews, because I've got it on my CV everyone has asked me what it involves, what have you learned from it, how has it helped you, why did you do it?"

> "PAL has developed self-confidence and communication skills, in the interviews I've had they ask about it all the time because it is a bit more unusual, unique to have it on your CV, the fact that you are taking responsibility for another group and their learning, they like to see that in you certainly at an early age, so that's going to help us lifelong I think"

Several PAL Leaders have also expressed an interest in teaching, and said that PAL has either promoted this interest or been of assisting in developing the skills necessary:

> "I'm considering a career in teaching, so this has been good experience and practice and seeing what it's like on the other side!"

One PAL Leader who had experienced this inquired further about the influence of PAL on his obtaining a placement with a prestigious company and received the following email:

> "I have been up and seen the placements office and asked about PAL affecting my [name of company] success. This is the response the placement office got from one of the people at [the company]:

> *' My $0.002 is that these extra activities are very much what stick out firstly when the CV sifting is done (we receive hundreds each year, and it is the "extras" that give at least a sense of how a student might fit in to the [company] environment). Also, the interview note refers to the "[Company] fit" -- a term we probably overuse, but this encompasses initiative, commitment, team player and so forth. Activities such as Peer Assisted Learning point towards these kind of behaviours, and I would personally argue that it added to our interest in [student name].'*

> This I think shows that PAL has definitely played a part in my placement, which I think is a definite 'selling point' (if that's the right word!) for future leaders and the benefit that PAL gives to it's leaders."

Review of course material

PAL Leaders have referred to PAL as being of help with understanding the context of their own current course demands, and reinforcing basic knowledge (revision):

> "To be honest, I learn a lot from my students, some of them really know their stuff, so as well as helping each other I have to say they help me too"

> "By revising through PAL the things we did last year it gives us a better understanding of what we're doing this year"

> "Some of the PAL sessions went back into basic ideas and that reinforced my knowledge"

"They normally talk about the bits of the course that they find difficult which are the bits that you found difficult which helps to revise things. If you need to set out points in some logical order then you need to re-learn that, so it's revision"

"PAL reinforced the foundations of things you've progressed onto in your second year and you can see how you've moved on"

Shortcomings of PAL for PAL Leaders

Limitations of cooperative aspects / achieving cooperative learning

PAL Leaders have suggested that the participative nature of PAL can be a detriment, where PAL Leaders are unable to offer more direct help to struggling students. Furthermore, if students are lacking in knowledge this makes it difficult to have a discussion around an issue (about which they know little). The issue of the student group being unforthcoming also relates to students' lack of ideas for what they want to discuss. PAL Leaders have experienced difficulties where students are unhappy about the intended cooperative nature of PAL, or have misconceptions about university. The longest quote in this section also alludes to difficulties that may be experienced in achieving cooperative learning in PAL due to the make-up of a group; the last three quotes to Leaders' reflections on whether all work should be contained within individual PAL sessions:

> "Sometimes I feel a bit bad because they do struggle and we can't help them more than we do. We can't tell them what to write, all we can do is sort of get their ideas out of them"

> "It can be a bit difficult because often you ask them their ideas and they don't really have any, they haven't done their research, and because we can't really give them all the answers we focus more on essay style and structure and things because when it comes to asking about actual content they don't seem to have done a lot"

> "Sometimes when you go in and say what do you want to do they'll turn round and say 'dunno, nothing' "

> "I find it really difficult sometimes because sometimes they've just got no idea" (

> "They get a chance to talk to each other in PAL, but sometimes they might as well be on different planets, because no matter how many times you say to them, talk in pairs, but they just don't talk about their course, it's really strange!"

> "Some of them get annoyed at the fact that we don't teach them, they want an answer and you don't give it to them and they don't see the point of PAL sessions"

> "They're so used to being given the answers that when they come here they expect that to continue and it doesn't"

> "I expected them to get involved more, I expected more help and more enthusiasm from them, because after all I've volunteered to do this, but sometimes it's really hard, they just kind of sit there and you get a bit fed up when they won't help you out"

> "I expected more motivation from people in my group, I expected more help from them, it seemed at the start it was just full of gormless people or stroppy madams"

> "When I got there I'd assumed they'd know the information that was on the question, I assumed they'd know something and half the group knew absolutely every answer and the other half just sat there with their arms crossed looking stroppy which were the people that don't turn up a lot, and I was at a bit of a loose end, I was like, well I've put you in groups but half of you aren't even talking to each other and the other

half have finished and I didn't know what to do then, so I tried to integrate the groups, I put two people that had finished with two that were struggling, the stroppy little madams, and got them to help each other and just kept rotating the groups and getting people to work with different people and discussed it all at the end, so everybody came out with the same information"

"I handed out some questions, a quiz, when they had a test and handed them out and said to bring them next week and some forgot and there were different people and we had to go through it again and it just got a bit annoying"

"I think it's easier to contain everything in that PAL session. If they want to go away and do something further they can afterwards but I don't think it works from my experience"

"Even with assignments when you plan it out and say right we're going to do that assignment next week and you say go away read it to back up what we've done they come back and they've done nothing that is a bit strange you'd think that to get the most out of it they'd do the work"

Limits of powers

PAL Leaders at times felt that pastoral issues, and extra help required by students, were somewhat beyond their capability. PAL Leaders also refer to the influence of their own pressures of work:

"There was one girl who hadn't got her essay back and so I went to the office with her and she'd failed and I just felt useless then"

"It's difficult if one person in particular has serious problems it's difficult to help without becoming a personal tutor"

"One girl was really struggling and I told her I'd help her outside PAL but it was a bit too much, she asked for a bit too much from me… in the end it took so long it was just beyond my capacity"

"Lately I've not had the time and I've been so distracted with my deadlines, if it only lasts 20 minutes then OK, I've got my work to do because that's what's on my mind"

"If they don't turn up wanting something I can't really be bothered to be honest because I've got plenty of other stuff to be doing"

(Mis)conceptions about PAL

Some PAL Leaders felt that students retained misconceptions about PAL, such as not viewing sessions as a place they could prepare for assignments, as seeing PAL Leaders as something approaching 'teachers', as not appreciating the potential for cooperative learning,

"I don't think they've grasped the concept of PAL still, for example they asked me to do a session on databases and I went in and there was only 2 or 3 people there, but then I went up to [the computer labs] and I found most of the others trying to do their assignment and they turned round and said 'can you help us do this?' and I thought 'you're in the wrong room' and they just hadn't got the idea"

"Some of them are still coming along thinking we're the teacher and they're the student therefore we're in charge but it's the opposite way round really, but there's something subconscious that they're thinking 'we can't say anything, he's got to tell us' sort of thing"

"They haven't understood the idea of self-managed learning… If I was to do PAL again I'd focus a lot more of my time getting across to them what the expectations are on them"

"I think it's very important right at the very beginning to make it clear to them that they're never going to get an answer out of you and so long as you keep to that then you won't get so much problem but you know that some of them are coming just to get the answers but if they have any sense they'll realise that they *are* getting the answers not from you but from everyone else there, but because some people think they can only get the answer from the person at the front of the room and then they're not giving it then they'll think well what's the point of me being here, so if that point is made and they grasp it they'll understand that they will get the answer or maybe some of it but from the others, but if you don't make it clear you'll get problems all the way through"

3. Quantitative results

Effects of PAL upon performance

Meaningful statistical analysis was only possible in one course over the 2002/3 period, because detailed records were kept as an official part of the course. This still represents around 100 students for whom PAL was available and offers some interesting results.

Analysis of attendance data and end-of-year marks for students on the Business Information Technology (BIT) course show some evidence of a correlation between attendance at PAL sessions and marks, when controlling for the effect of attendance at all other course units.

The correlation between attendance at PAL and mark was just not significant across the course as a whole (N=69, Pearson correlation= 0.153, P=0.105). The correlation across the course as a whole between attendance at PAL and mark, controlling for the effect of attendance at all other course units ('average attendance'), was not significant (N=66, Pearson correlation=0.088, P=0.471). The correlation between attendance at PAL and course attendance was highly significant (N=77, Pearson correlation=0.347, P=0.001). (Numbers vary due to missing values.)

The correlations between attendance at PAL and mark, controlling for the effect of average attendance, analysed separately by seminar (/PAL) group produced the following results (see table 3).

Table 3: Comparison of attendance and marks on BIT course

Group	Group's average attendance at PAL (% sessions attended)	Group's average end-of-year mark (%)	Group's average attendance across all other units (% of course attended)	Correlation between PAL and mark, controlling for average attendance	P (significance level)
1 (N=11)	66.5	55.7	67.8	0.784	0.001
2 (N=12)	44.2	55.3	66.4	0.696	0.004
3 (N=12)	32.9	63.3	66.3	0.116	0.346
4 (N=12)	15.8	54.4	61.1	-0.108	0.363
5 (N=11)	6.3	46.0	64.1	0.155	0.325

This seems to suggest that for 2 of the 5 groups, attendance at PAL was significantly correlated with marks, even when the effect of attendance at other course units was accounted for. This is an important result for it indicates a positive influence of PAL, and also makes use of a technique perhaps not previously used in investigating effects of PAL. Usually, a student's entry qualifications are taken as a *de facto* measure of ability or motivation, but it is proposed here that the measure of actual attendance at other course units provides a better measure of both motivation whilst actually at university (rather than a previous measure such as A-level results) and also can be taken to be an indicator of the extent to which students may receive benefits from attending other parts of the course (e.g. through attending seminars). The results here therefore indicate that PAL is of benefit in increasing performance and also uses a more rigourous technique than other studies (e.g. Bidgood, 1994, Coe et al., 1997).

Further interpretation of results

Where significant results occur, this is where the average attendance at PAL tended to be high. Where significant results do not occur, this is where students of a group tend not to attend PAL - this sounds like a fairly self-evident finding, and may be interpreted in a purely statistical fashion: if students are in general not attending PAL then a maethematical correlation will be unlikely to be obtained, for example in group 5 only 4 of 12 students attended PAL more than zero times: how likely is it then to find a statistically significant correlation here?
The result may also be interpreted in another way, however, and that is to say that a positive influence (upon performance) of PAL is dependent upon a well-attending and functional group. This may explain why groups 3 and 4, despite there being some attendance, demonstrated no positive correlation between attendance at PAL and marks. It should be noted that it was in fact felt at the time that groups 1 and 2 were the most productive, well-functioning groups within the course, with PAL Leaders able to establish a positive rapport with their students and reporting constructive and purposeful sessions. Of course, this is only an impression from speaking with students, PAL Leaders and observing sessions, but with a knowledge of PAL on this course it seems a feasible explanation.
Thus the proposition may be (from this admittedly small sample) that PAL can effect a positive influence upon grades but group effects should be taken into account: only where students in a group attend regularly and where there is good group coherence and a positive relationship with the PAL Leader will this effect occur. Results also suggest, unsurprisingly, that attendance at PAL and group productivity are interrelated.

It should be noted that because data for groups 1 and 2 are non-parametric, it may be seen as problematic to use Pearson's test, but it is suggested that because data is very significant this result should stand.

PAL and retention

Total attrition (dropout) as a percentage within this course for 2002/3 was 16.7%, down from 24.7% in 2001/2 - this corresponds to a loss of 13 out of 78 students in 2002/3 compared to 23 out of 93 students in 2001/2. Although caution should be exercised in attributing any of such a change to PAL, it is not unreasonable to suppose that the scheme may have been a contributing factor.

Results - summary

The results of analyses of PAL at Bournemouth are summarised in tables 4-7 below.

Table 4: Benefits of PAL for first year students

Benefit	**Characteristics** (as expressed by students)
Assists with adjusting to university	Getting to know other students and enhancing social side of university; developing group and course coherence; reassurance at stressful time; awareness of and understanding initial course and university expectations; reviewing information received during induction; advice on university life; sharing initial experiences
Understanding the course	Understanding the 'basics' as well as 'difficult' parts of the course; clarifying course subject matter; consolidating and constructing knowledge; ascertaining gaps in knowledge and how to address these; reviewing (taught) material; increasing knowledge; reducing misunderstanding; understanding relations between different parts of the course (linkages); comprehending course terminology; increasing confidence in handling course topics; problem solving; revision; increasing understanding in relation to seminar work and specific to particular assignments
Awareness of course expectations and directions	Gaining 'survival' techniques; awareness and understanding of course expectations and assessment criteria; understanding university expectations; awareness of protocol (e.g. deadlines, approaching staff); awareness of how course develops and links with first year; awareness of course 'as a whole' and how it operates
Preparation and completion of assessed work	Analysing assignment briefs/ questions; discussing approaches; structuring assignments; reviewing relevant concepts; practising relevant aspects through associated tasks; discussing and deciding content to include; chance to improve marks; awareness of assessment requirements (including by viewing PAL Leaders' old work); able to use time in PAL for academic writing, with potential for input from PAL Leader; revision for exams/ tests (e.g. past papers)
Reassurance / confidence	Mutuality (others with similar worries); develops confidence to 'speak up'; develops conviction in knowledge and abilities; talking with PAL Leader about progression; develops confidence about progression
Openness / informality	Unintimidating; encourages open, honest admission of misunderstanding, concerns and problems; encourages asking of questions; attentive to issues students wish to discuss; confidential; enjoyable/ friendly/ stimulating environment; stress-reducing; 'positive' attitude; more 'personal' than other parts of course; lack of 'fear of failure'
Student-determined	Students able to decide subject matter, raise questions and issues of concern; attends to immediate academic needs (e.g. assignments due in)
Cooperative learning	Sharing ideas (a 'forum' for ideas); gaining others' knowledge; exchange between students based on subject strengths; discussing different approaches; discovering solutions; airing problems within the group; enhancing understanding through exchange of ideas; opportunity for informal discussion, debate; 'learning for themselves'; appreciating social aspects to learning
Study and transferable skills	Understanding how to structure work; developing essay techniques/ how to report experiments; awareness of differences between essay/ report writing; enhancing (including practising) presentation skills; enhancing use of generic software (MS powerpoint); developing revision and exam techniques and time management; developing ability to use library; reflections on academic thinking process; constructing an academic argument
PAL Leader advice/ perspective/ methods	PAL Leader using student-friendly language and methods; student-oriented approach; passing on benefit of experience; learning from mistakes; reinforcement, explanation and simplification of ideas; advice on assignments; advice on course expectations; affective closeness and empathy; approachable individual; extra assistance; advice on second/ third year; reassuring figure; encourages progression; helps encourage groupwork and group cohesiveness; able to manage group and draw out ideas
PAL Leader – staff liaison	PAL Leader able to raise problems/ questions on behalf of first years; able to reciprocate for staff
Potential to increase marks	Some limited evidence from statistical analysis - see table 3
Range of benefits as rated	See table 2 and figure 1

Table 5: Shortcomings of PAL for first year students

Shortcoming	Characteristics (as expressed by students)
Help not required	PAL redundant for students perceiving they do not need help or the help of PAL
PAL not helpful	PAL ineffectual, or otherwise not perceived as helpful
(Initial) misconceptions	Expectations of re-teaching; expectations of 'superior' PAL Leaders
Character of sessions / concerns about productivity	Slow-paced; less content-heavy than other teaching; less serious attitude to study; only useful when there are 'problems' or if workload is light; repetition of previously covered or understood work; not enjoyable; under-preparedness leading to heightened confusion; too informal or low priority
Limits to cooperative basis	Reliance on PAL Leader to explain concepts; limits of preparedness or ability to contribute; more input from teaching staff desired; desire for PAL Leader to 'teach'
Structure of PAL sessions	Lack of clear format, aims, objectives; excessive informality; lack of preparation; lack of clarity about future session content
Inappropriate advice	Incorrect advice on assignment completion; doubts about knowledge levels; re-teaching?
Timetabling/ operational	PAL susceptible to attendance fluctuations relative to timetable; confusion about operation of PAL
Insufficient provision of PAL	Desire for more provision (e.g. twice a week) of PAL

Table 6 : Benefits of PAL for PAL Leaders

Benefit	Characteristics (as expressed by PAL Leaders)
Revision of first year material	Reviewing and underpinning knowledge of first year material; places current learning in perspective
Personal development	Increases confidence; enhances presentation, group speaking, communication, group management, leadership and organisational skills; rewarding sense of achievement; develops skills for interviews; increased interest in teaching and experience relevant to this
Utilising the experience	Useful for CV; asked about in placement interviews; evidence PAL has helped obtain placements
Social aspects	Get to know new students

Table 7 : Shortcomings of PAL for PAL Leaders

Shortcoming	Characteristics (as expressed by PAL Leaders)
Limitations of cooperative basis	Needing to lead discussion (especially early on); perceptions of student group needing excessive direction; group dependent on PAL Leader; difficulty in getting response from students and consequent problems; difficulties presented by students with differing levels of need and knowledge
Limits of powers	Difficulty in keeping students interested; difficulty in covering everything in PAL sessions; difficulties when PAL Leaders don't 'know the answers'; inability to 'teach'; limits to help that can be offered; limits to pastoral help that can be offered or extra help that can be provided
Disruptive or difficult students	Students being disgruntled when PAL Leaders will not 'teach'; lack of motivation from students; lack of involvement or interest from students; students not working between PAL sessions
Misconceptions about PAL from students	Expectations by students of 'teaching' or amount of direction that can be offered by PAL Leader; PAL perceived as lacking importance ('woolly' part of the course); misconceptions about what PAL sessions can be used for
Effects on own work	Time demands
Changes to course	Course changing between years affects PAL Leader's knowledge of current demands
Variable attendance	Changes in numbers present presents group management difficulties

Discussion and conclusions

The results of this study suggest there are a wide range of benefits for both student participants and PAL Leaders from involvement in a PAL scheme as well as inherent or potential shortcomings. This study has critically analysed, and presented more detailed and substantial evidence for, the types of benefits and shortcomings previously suggested in the literature, as well as indicating novel outcomes.

From questionnaire survey results (see figure 1), it appears that meaning-oriented outcomes feature very highly from PAL: meaning-oriented responses feature as first, third, and eighth out of sixteen potential benefits. Strategic-oriented benefits feature less strongly, at sixth, seventh and eleventh out of sixteen. This would seem to run contrary to Ashwin's (2003) finding that PAL represents a bias towards a strategic-oriented focus on outcomes. (It should be noted however that this study has approached the issue in a different fashion; also Ashwin's study was in Further Education.)

The consistency of benefits of PAL between courses is high (see table 2). This may suggest that outcomes of PAL are not, at least as suggested by these measures, course or discipline-specific. It would also suggest inter-observer reliability of the measurement scale, and the reliability of the scale is further supported by the finding that the 'control' measure (i.e. a potential outcome which it was neither intended nor expected would emerge) comes out consistently as having a low presence (table 2) and is the least-rated outcome of PAL (figure 1).

Many of the results of this study are replicated by different methodology and this triangulation of findings offers validity to the results presented. Questionnaire, survey, interview and discussion group, and reflective diary results indicate a wide array of benefits for first year student participants. Direct and specific effects include heightening awareness of course expectations and understanding of course material. Students also reported a range of benefits which they saw as being associated with cooperative learning and the open, informal character of PAL. It might have been the case that cooperation, interaction and informality in PAL was either seen as a given, or as a means to an end, but students appear to perceive and recognise that the relaxed, participative character of PAL is itself a valuable feature of the scheme. Indirect and transferable benefits of PAL include aspects of PAL assisting with adjusting to university, heightened confidence and the development of transferable skills. The value of the PAL Leader perspective is also seen as of value to students. Thus PAL is portrayed (when it works) as an open, informal, cooperative environment, in which students are able to set the agenda and raise their concerns, which is overseen by a trusted and approachable individual, and is of value in adjusting to university, understanding course material, enhancing the ability to do well in assessed work and building confidence. This fits with the model as identified by previous researchers (e.g. Wallace, 2003) though findings here expand further upon and support often notionally proposed benefits. Some significant benefits of PAL not well-reported in the literature and revealed by this study include that:

- PAL can help with adjusting to university in a range of ways, such as by reducing anxiety through sharing initial experiences, reviewing induction matters, developing group and course coherence, and creating early awareness of university and course expectations
- PAL can assist with understanding course material in a range of ways, such as by ascertaining gaps in knowledge and how to address these, consolidating and reviewing taught material and by assisting understanding relations between different course elements
- PAL can offer a unique and positive environment (student-centred, student-determined and overseen, open and informal, discursive) in which to enhance the overall learning experience

- PAL can operate as a truly cooperative environment in which there is positive interdependence through open exchange of ideas and mutual support
- PAL can develop confidence of students to handle and discuss the subject matter of their course and regarding progression
- The quality of PAL is greatly enhanced through the role and methods of PAL Leaders, many of which are unique within the course structure (e.g. the affective closeness of the PAL Leader)

Table 4 describes in greater detail the characteristic features of each of these beneficial outcomes of PAL.

This study also reports what are seen by some students as shortcomings of the scheme. For some, PAL is simply seen as unnecessary for them. There are also suggestions that there are misconceptions about the scheme on the part of first year students. Students suggested that at times PAL was ineffectual, for example because it was slow-paced, lacking seriousness or repeating previously covered work. There were also difficulties in interaction in PAL, with some PAL Leaders taking what seems an excessively instructive role, or with a cooperative environment not emerging. A common criticism of PAL has been that PAL sessions lacked clear structure, or aims, which may in turn lead to lack of productivity. There was also mention from first year participants that they had had inappropriate advice through PAL.

Lack of productivity or structure of PAL as perceived by students may perhaps be an inevitable comment, when compared with formal teaching: it is unlikely that PAL will (or should) ever develop the formal structures of transmission of content of other taught parts of a course. Also it is clear that informality in PAL has clear functions and value. Nevertheless, it is likely to be the case that at times, a lack of structure contributed negatively to student perceptions of and to the productivity of PAL sessions. Some students suggest a greater involvement by the course teaching team would help ameliorate a lack of structure or purpose in PAL and staff are indeed encouraged to become involved with assisting PAL Leaders with planning and content for PAL sessions. Generic PAL activities such as devising and giving presentations in class, quizzes, lecture review activities, generic study skills activities, etc. will help encourage productive PAL sessions but it also important to encourage teach staff involvement where possible.

It is clearly of concern where students report misleading advice to PAL Leaders. This may often be related (as reported by PAL Leaders) to a certain pressure felt to teach, re-explain, etc. Because of the serious implications of such conduct and because of the clear risk that is demonstrated that this may occur in PAL, it is clear that the co-ordination of a PAL programme and associated training of PAL Leaders be sensitive to this issue.

PAL Leaders mentioned benefits of the scheme to themselves, including that PAL assists with a review of first year material, and that PAL increases a range of personal skills as well as being rewarding in its own right. PAL Leaders have also been able to utilise the experience in CVs and to obtain placements. These benefits are in keeping with Donelan's (1999) portrayal of PAL Leaders as 'the real winners' though it is clear in this study that first year students are also acquiring a full range of benefits.

Shortcomings for PAL Leaders of PAL Leaders included a difficulty in achieiving the intended cooperative character of PAL, this in some instances resulting in PAL Leaders adopting a more directional role than was perhaps appropriate. It is clear that misconceptions or expectations of students may cause PAL Leaders to feel pressured in this way, with some responding by adopting this type of role. Even where PAL Leaders try hard to enable participation, they have not always been successful, and as well as this resulting in students' negative appraisal of PAL, this may also have a negative impact on PAL Leaders, such as lowering motivation or

becoming disheartened with their involvement. Again, PAL co-ordinators should be sensitive to this issue. Where sessions do not go well in this way, a further problem for the scheme and for PAL Leaders may be a recuction in attendance which can be demoralising for PAL Leaders. A careful setting of expectations about PAL with the first year group (that PAL is participative, for example) may go some way to helping avoid later problems, as will a carefully considered training programme for PAL Leaders.

This study demonstrates some statistical evidence for a positive influence of PAL upon performance in one course, dependent on the success of operation of groups (and not simply on frequency of attendance). The correlation between PAL and marks is consistent with previous UK studies (Bidgood, 1994; Coe et al., 1999) though the analysis here uses more convincing control data (attendance at other first year course units rather than A-level data) and also indicates that group productivity needs to be taken into account in statistical analysis of this sort.

This study puts forward far more detailed and wide-ranging data than could emerge through numerical analysis of the link between attendance at PAL and performance. Whilst such analysis will be of value and should be undertaken, it is suggested here that an excessive focus on statistical effects of PAL (which are often because of research design flawed in any case) can potentially be self-defeating because of the amounts of rich qualitative data that may be ignored or played down where quantitative aspects are emphasised.

A limitation of this study is that all qualitative research data was gathered during the Spring term. Whilst students were able to reflect upon such matters as PAL assisting with adjusting to university and there was some mention of later course demands (such as exam revision) it would be of value in future to better describe the changes occurring in PAL over the course of an academic year, so as to better operationalise the scheme. For example, it appears that early PAL sessions will benefit from a high level of structure and group management by the PAL Leader to enable participation, with this gradually giving way to a more informal and 'natural' character of discussion as the year progresses. Similarly, PAL sessions will produce different benefits and run in different ways depending on students' current demands (such as adjusting to university, understanding course subject matter, preparing for assignments and exam revision).

A further limitation of this study is that it divides the outcomes of PAL into 'benefits' and 'shortcomings'. This may a somewhat blunt division of the effects of PAL but it was felt to be important to present to as great an extent as possible the positive and negative nature of the scheme from students' perspective. Much however about how outcomes emerge from PAL will relate to the context of learning, for example the informal character of PAL has clear benefits but this may also be perceived by some students and at some times in a negative light, such as presenting a lack of structure to PAL sessions.

So why should PAL be resourced?

Inevitably, and properly, any consideration of whether PAL should be set up or continued to be resourced will ask what the value of the scheme presents (and contrastingly, what might be the downsides)?

This study demonstrates that the benefits of PAL are multitudinous and wide-ranging, and that where PAL is carfully set up its benefits will far outweigh its negatives. Indeed, with the exception of a rare concern that PAL may convey inappropriate advice, most of the shortcomings reported here reflect difficulties with trying to get PAL to work well, rather than PAL negatively affecting the student experience. Whilst there may be evidence found that PAL can affect performance and retention, this study argues that much, or even most, of the value of PAL lies in its enhancement of student experience of university.

The question might then be asked - could not many of these benefits accrue anyway through formal structures? Yes, PAL may develop understanding, but so can reading a textbook. The point to make here is that there are many unique, or at least uncommon aspects to PAL that distinguish it: in a sense all of the above benefits of PAL can be considered particular to the scheme because of their delivery and in the context in which arise: for example, the achievement of understanding of the difference between hexidecimal and binary through lively students-only discussion, where those experiencing difficulty or worries feel able to raise concerns that they may feel inhibited to in seminars, with the contributory perspective of a PAL Leader who is at that time experiencing how this material is being applied in the second year, and so on, is *comprehensively different* from the achievement of understanding of the same course topic through a lecture or even a discursive seminar.
Such aspects of PAL lend the scheme its strength and give it its 'added value'. PAL, in short, offers a truly distinctive way of enriching the learning experience of both first year students and PAL Leaders.

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