



National HE STEM Programme Project – *Peer Assisted Learning: In and beyond the classroom*

A Literature Review of Peer Assisted Learning (PAL)

**Paula Green, University of Bath
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Introduction

Since its adoption in the British Higher Education system in the early 1990s, Peer Assisted Learning (PAL) has developed and been implemented in many UK institutions¹, evolving into a considered and evaluated method of “student-to-student support” (Capstick, 2004, p.1). The benefits of the approach to both institution and students involved are widely reported through quantitative and qualitative research, and this literature review aims to summarise these findings, outlining the various approaches to PAL currently being used and the educational theory and ideas which support it. In addition to institutionally-based PAL projects, new developments in virtual PAL will also be explored to give an appreciation of its transitional and evolving nature.

Inherent in much of the literature available is an acknowledgement of the multiplicity of terms used to describe PAL (Capstick, Fleming and Hurne, 2004; Ginsburg-Block, Rohrbeck and Fantuzzo, 1996; Topping, 1996). Whilst recognising these variations, to aid clarity and continuity, this review will use the term ‘PAL’ to refer to approaches where the underlying ethos and philosophy are consistent with those of PAL as “active discussion and cooperative learning within the framework of a partnership with the formal structures of the course.” (Capstick, 2004, p.1)².

Horizontal and Vertical Peer Support

The “active discussion and cooperative learning” which Capstick refers to as a defining feature of PAL is widely seen to be actualised in two modes of operational implementation, which Black and MacKenzie refer to as “horizontal” and “vertical” peer support (Black and MacKenzie, 2008, p.3). Predominantly, the former is characterised by students supporting one another from within the same year and the latter utilises student support from the year above. Key to both approaches is the understanding that of equal importance to the curriculum benefits of PAL (e.g. improved grades, student retention, etc), is the focus on creating a “safe, friendly place to help students adjust quickly to university life.” (Capstick, Fleming and Hurne, 2004, p.2). It will be shown how fundamental these safe, friendly places or “learning communities” (Tinto, 2006, p.4) are to realising both the tangible and “intangible”³ benefits of the PAL scheme.

¹ Clark, Andrews and Ingleby (2010) have compiled a comprehensive directory of peer mentoring provision in the UK Higher Education System, which gives reference to the number of peer assisted learning schemes currently in place.

² Terminology and approaches examined in this piece include those with an academic focus such as Peer Tutoring, Peer Assisted Study Support and Supplemental Instruction. Peer mentoring schemes, which are argued to have a more pastoral focus are not included.

³ This distinction of aims and outcomes is taken from the Bournemouth University website, which can be found at <http://pal.bournemouth.ac.uk/>

Hammond et al (2010) and Havnes (2008) both explore approaches to peer learning in the context of same-year peer tutoring. Havnes' work primarily focuses on the learning which takes place naturally as a by-product of institutionally organised schemes, and he argues that key to this is the foundation of the peer-mediated learning environment as a "tutorless group".

"Since all potentially have an equally important contribution to make, the correct solution is not known and they cannot rely on somebody to ratify the correct solutions." (Havnes, 2008)

It is within this group interaction that he argues the lack of expert enables a "meaning making" to take place which transcends simply academic growth, to include "enculturation into the social practice of university studies, professional development and personal growth." (Havnes, 2008).

This lack of "competent 'significant others'" (Havnes, 2008) may seem in contrast to the "cross-level peer tutoring" model which is regarded as the most common approach to PAL (Falchikov, 2001 as cited by Hammond et al, 2010, p.203), and the approach adopted by Bournemouth University amongst others⁴. Ladyshevsky, for example, argues that the very inclusion of a more experienced 'tutor' can negate the learning experience for new students and create a passive learning environment (Ladyshevsky, 2000 as cited by Hammond et al, 2010, p.203). However, others such as Micari, Streitwieser and Light argue that this is not the case. Peer relationships, they conclude, involve "much less consciousness of the power imbalance than do student-faculty relationships [and thus] learning in such a dynamic may enable participants to engage more freely and fully (Bould, 2001)." (Micari, Streitwieser and Light, 2006, p.273). Fundamentally, as Black and MacKenzie discuss, the PAL Leader as the more 'senior' student of the cross-level approach is able to impart experience, but their facilitation is not intended as a substitute for explicit curriculum teaching. The PAL Leader is,

"not the expert but the guide... Their role is to model learning strategies through developing activities and processes that enable students to learn actively and collaboratively. The facilitators 'mirror the curriculum, rather than teaching new materials' (Marra and Litzinger, 1997, p.112) and their greatest challenge is to facilitate learning rather than re-teaching."
(Engineering Education: Journal of the Higher Education Academy, 2010)

⁴ Much literature has been produced by Bournemouth University regarding its PAL project (e.g. Capstick, 2004; Capstick, Fleming and Hurne, 2004; Green, 2007); a model which has been recognised as excellent practice by Universities UK (Universities UK, 2002 as cited by Capstick, 2004). Therefore, this literature review draws heavily on this institution's approach and its theoretical foundations.

Significantly, Micari, Streitwieser and Light argue that rather than adopting the role of teacher and simply transmitting knowledge, the PAL process enables the PAL Leader to enhance their own learning experience. As they go on to explain,

“As facilitators of learning, they must think through and mentally organize information before explaining it to students. This process forces peer leaders to engage with the material at a deep level, helping to solidify their own understanding of it.”

(Micari, Streitweiser and Light, 2006, p.270)

In effect, the inextricably interchangeable roles of student and tutor which transcends both same-year and cross-year PAL approaches enables all involved to experience the “cognitive conflicts [which] generates learning” (Havnes, 2008).

Student ownership is key to the ethos of the PAL scheme; it enables students to concentrate on the issues and curriculum areas that are of most significance to them. However, issues of institutional support and coherence in terms of lack of structure, poor timetabling and cooperative and logistical concerns have all been demonstrated as having detrimental effects on the possible success of PAL schemes (Xiao and Hayes, 2008; Capstick, 2004; Capstick, Fleming and Hurne, 2004). As Black and MacKenzie (2008) and Tinto (2006) argue, schemes such as PAL and the learning communities they create must be an integrated part of the university's fabric. When this is realised, the benefits to all those involved in PAL can be significant, as will now be discussed.

The Benefits of PAL

Much has been written in support of PAL with regard to pedagogical advantages such as improved performance and widening student retention (Black and MacKenzie, 2008; Capstick, 2004). As Tinto concludes,

“Students who are actively involved in learning, that is who spend more time on task especially with others, are more likely to learn, and in turn, more likely to stay.” (Tinto, 2006, p.3).

Increased student retention has also then been demonstrated to have economic benefits to the institution⁵. From a curriculum point of view, Capstick has also undertaken a comprehensive study of qualitative data to conclude positive results for

⁵ Jones (2008) draws on the work of Sims (2006) to look at the financial benefits of increased student support. Whilst not specifically linked to PAL, the findings were that “the average cost of additional contact with students was £200 and this resulted in increasing student retention rates by 5%, with a saving of £1300 per student, which represents a 550% return on investment.” (Jones, 2008, p. 21)

students who have attended PAL in relation to ‘meaning-oriented outcomes’ (as opposed to solely strategic-orientated/ assessment driven outcomes), understanding course material and enhancing the ability to do well in assessed work (Capstick, 2004, p.47)⁶.

Whilst PAL does have a “primarily academic focus” (Black and MacKenzie, 2008, p.4) with many curriculum benefits as outlined above, of equal significance it is argued are the “intangible” benefits, which the spaces or “niches” (Havnes, 2008) which the PAL collaborative learning communities create, “such as increased cohesion of the student group, reassurance about study concerns and increased confidence.” (Bournemouth University website)⁷. As has already been mentioned, evidence also reports wide ranging benefits to PAL Leaders, including cognitive, personal and instrumental progression (Micari, Streitwieser and Light, 2006).

Key to achieving these results it is argued is the ability and willingness of an institution to adapt and evolve its approach to PAL in line with its own experience (Capstick, Fleming and Hurne, 2004). As University College London acknowledges in its own PAL literature, “What works for one department does not necessarily work for another.”⁸ Capstick, Fleming and Hurne go on to conclude that, “a willingness to adapt and innovate within a system of broad practice has become a hallmark of PAL across the UK.” (Capstick, Fleming and Hurne, 2004; p.2).

An Alternative Approach to PAL – Online PAL

In view of this, it is important to consider an alternative approach to PAL which utilises a contrasting interpretation of the “learning community”. The Higher Education Academy – Engineering Subject Centre undertook a study of PAL using Advanced Web Technologies (Xiao and Hayes, 2008). Whilst accepting the generally agreed benefits of traditional approaches in “encouraging cooperative learning, promoting clear expectations and increasing confidence” (Xiao and Hayes, 2008, p.4), the study also looks at some of the concerns as outlined above (i.e. productivity, cooperative and logistical concerns). Through the use of the Wiki, the study aimed to provide a “new online communication method as an enabler for PAL.” (Xiao and Hayes, 2008, p.5). In recognition of the transcending ethos which drives PAL, the “inherent online, collaborative and social form” of the Wiki (Xiao and Hayes, 2008, p.5) aimed to mirror the “feeling of support and comfort” (Xiao and Hayes, 2008, p.8) in its group areas, and

⁶ It should be noted that Capstick’s work also acknowledges the importance of group dynamics and student relationships with PAL leaders in achieving optimum outcomes.

⁷ Available at <http://pal.bournemouth.ac.uk/>

⁸ Available at <http://www.ucl.ac.uk/calt/pal/>

retain the authorship of the site, which has been concluded as so important in terms of ownership of the PAL group in more traditional approaches.

Whilst noting some benefits to this approach, particularly in terms of exam preparation, the study concluded that the virtual setting was not wholly conducive to the philosophy of PAL and that “rather than being an enabler [technology] is actually hindering the useful aspects that PAL has to offer.” (Xiao and Hayes, 2008, p.15). Whilst the study concluded limitations to online PAL in this instance, the article demonstrates the importance of continually adapting PAL to new methods of learning, which will be particularly of relevance to the expansion of access through methods such as distance learning.

Conclusion

In conclusion, a review of current work around Peer Assisted Learning schemes demonstrates a wealth of information and research in this developing area of higher education teaching and learning. Guidance has been offered by those such as Capstick (2004) for establishments intending to begin the process of implementing PAL schemes, and new developments in virtual PAL have highlighted this approach as one which is continually changing and evolving. In recognition of this, much literature emphasises the importance of flexibility in approach and an appreciation of each settings' own requirements and ethos as key to successful implementation. As has been explored above, whilst issues and difficulties have been encountered and variations in implementation exist, the transcending argument appears to be one of support and appreciation of the scheme's potential. In summary of his findings, Capstick concludes,

“...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.” (Capstick, 2004, p.47)

These values are ones which can then resonate to benefit student and institution alike.

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