Peer Assisted Learning in Higher Education: Roles, Perceptions and Efficacy

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ABSTRACT

Universities are increasingly examining alternative means of teaching and learning, and supplemental instruction in the form of peer tutoring is progressively used to support learning in selected courses. This small scale ethnographic study investigates the roles and relationships between the peer tutors and tutees to uncover their perceptions of peer tutoring and their perceived effects. Semi-structured focus group discussions of ten tutors and ten tutees and two participant group observations were employed. The findings suggest that perceptions of the success of this programme were attributed to low power distance of the tutors and tutees, the development of friendships and the metacognitive learning strategies that were explicitly taught. Implications arising from this study suggest a greater focus on roles and expectations in the design of peer tutoring programmes.

Keywords: Peer-assisted learning, peer tutoring, efficacy, roles, perceptions, power distance, friendships

INTRODUCTION

Peer assisted learning (PAL) has a long and rich history as collaborative or community learning and is usually defined as “the acquisition of knowledge and skill through active help and support among status equals or matched companions” (Topping, 2005, p.631). The term has been used to describe a selection of approaches that involve students teaching other students (Kirkham & Ringelstein, 2008). It is also known as ‘peer tutoring’, an instructional or learning support strategy which utilises students to provide academic support to struggling peers. Students from the same classes or older students are paired with
younger struggling students. The tutoring is in small groups or through one-on-one interactions and in some cases, students rotate between the role of tutor and tutee (Higgins et al., 2014; Lee et al., 2015). In this paper, the terms ‘tutor’ and ‘tutee’ will be used throughout the text.

Studies have shown that PAL and peer tutoring programmes have a positive correlation with examination performance and have led to a reduction of stress and enhancement of course satisfaction among students (Glynn et al., 2006). The benefits of PAL do not appear to be limited to the tutees as findings affirmed the benefits to peer tutors, particularly in terms of skills enhancement and reinforcement of positive attitudes towards future social responsibilities (Hodgson et al., 2014). It is in the context of the positive outcomes reported from many major studies (Jun et al., 2010) that UCSI University implemented its PAL programme for students in high risk modules (courses which have failure rates of more than 30%) in 2014 so as to provide academic support and to enhance academic performance. Tutors are volunteer students who are academically advanced in the selected courses and meet their tutees at least once a week.

The theoretical underpinning of this programme is drawn from Topping (2005)’s theoretical model of peer assisted learning and socio-cultural theories of learning (Lave & Wenger, 1991). These theories conceptualise learning through participation in social interaction and activity, and are situated in cultural and historical contexts. It is these contexts that shape the learning that takes place among communities of practice and give rise to their meanings (Lave & Wenger, 1991). Utilising the socio-cultural lens to investigate peer-assisted learning enables this study to uncover learning in context, identify unexpected significances and provide rich descriptions of the activities under investigation.

As such, this paper examines the efficacy of the PAL programme by investigating the roles and relationships between tutors, tutees and their intended outcomes. Through the perspectives of tutors and tutees, this small scale inquiry investigates the following research questions:

1. What are the participants’ perceptions of peer tutoring?
2. What are their goals/intended outcomes of peer tutoring?
3. What are the perceptions of their relationships to their tutors (or tutees)?)

RELATED WORK

Many of the peer assisted learning programmes in higher education are derived from the Supplemental Instruction Approach (SI) pioneered by Deanna Martin at the University of Missouri (Arendale, 2007; Hilsdon, 2013). The SI discourse focuses on developmental education and the provision of essential learning strategies to enhance academic achievement. SI recognises ‘high risk classes’ rather than ‘high risk students’, thus avoiding the stigma of traditional, remedial programmes (Arendale, 2007). Peer Assisted Learning using the learning
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strategies approach thus, has many names in many countries: Peer Learning (PL), Peer Assisted Study Sessions (PASS) and Supported Learning Groups (SLGS) (Hilsdon, 2013).

There is compelling evidence that peer tutoring or peer learning results in improvements in learning (Lee et al., 2015). Benefits of PAL include significant gains in intellectual and social awareness and empathy (Rubin & Herbert, 1998), and positive consequences on student self-esteem (Ginsburg-Block et al., 2006). Higgins et al. (2014) found in a systematic review and meta-analysis of existing literature that peer tutoring in schools appears to have a positive effect on learning, with an estimation of an average positive effect of five additional months’ progress. Their conclusion was that peer tutoring for a wide range of age groups was most effective when it is used as supplemental instruction rather than to replace normal teaching. Additionally, it was found based on extensive evidence, that peer tutoring programmes had moderate impact for very low cost of delivery (Lee et al., 2015).

In the systematic review done by Zepke and Leach (2010) on student engagement, they acknowledge that student-student relationships are important in improving student engagement: peer relationships are important in engaging learners. If the distance in relationship between the peers is low, then the interaction is more casual and friendly. If the distance is high, the interaction is more formal and rigid. Power distance as defined by Hofstede (2001) is the extent to which a less powerful individual (e.g. tutee) expects and accepts unequal distribution of power in a social context.

In the Malaysian context, there has been a paucity of empirical studies on peer tutoring and its effects. Many investigations were focused on programme evaluations which may not have taken into consideration the socio-cultural contexts of South-east Asia in general and Malaysia in particular (Sultan et al., 2013). This empirical study of six months aims to offer new insights into how peer tutoring takes place in a private university in Malaysia and the participants’ perceptions of the outcomes and learning processes.

METHODOLOGY

This is an ethnographic study of a small sampling of peer tutors and tutees. Ethnography is dedicated to the uncovering of “social realities as they are lived, experienced, understood and familiar to the people studied” (Katz, 1997, p.394). The ethnographic methods used in this study (focus group discussions and participant observations) are aligned with the theoretical underpinning of this study as these research methods would be able to yield findings that are grounded in contextual details, nuanced, and are meaningful to participants (Katz, 1997). Socio-cultural theories of learning emphasize contexts and situated learning where communities are brought together by shared practices and research methods used must be able to uncover the density of textured data with the richness of participants’ experiences.
UCSI University in Context

PAL was implemented in UCSI University in 2014. Student tutors and tutees are from 17 to 21 years old from various nationalities (Malaysian, Nigerian, Iranian, Chinese, etc.). The tutors are recruited at the beginning of the semester and they will be asked to state the subjects that they want to teach. The subjects will then be advertised and students will start to register as tutees. Students who are weak in certain subjects will also get the chance to request for a tutor and the University will match the students with suitable tutors. As this is a private university, students come mostly from middle class to upper middle class backgrounds and their motivation to achieve is usually high due to the higher university fees that they pay. The language of instruction in UCSI University is the English language.

Research Methods

Two research methods: focus group interviews and participant observations were used for the purposes of data comparison in order to validate reliable sources of interpretation (Hammersley, 2008). To ensure rigour in qualitative data collection and analysis, the researchers in this study practised reflexivity, that is, to reflect on the method of data collection and analysis in order to avoid biases and preconceived notions.

Focus Groups. Two focus group interviews were conducted with ten undergraduate peer tutors and ten undergraduate/foundation tutees in order to elicit different and similar perspectives of the peer tutoring sessions. Purposive sampling strategies were used to determine the selection of participants. The criteria for the selection were based on experience in the PAL programme. Peer tutors had to have experience conducting peer assisted study sessions at least for a semester (14 weeks). The tutees had to have also attended at least a semester of PAL study sessions which was equivalent to 21 hours (1.5 hour/week with 14 weeks in total). The high risk courses investigated in this study were Accounting and Algebra, Macroeconomics, Accounting Practise, Chemistry 1 and 2, Statistics, and Physics.

Ethnographic interviewing methods (Bernard, 2002) were used to draw out the participants’ experiences and perceptions. Informed consent was sought from every participant for the interviews and field observation. Each focus group was facilitated by trained moderators for approximately 1 hour, and interviews were audio-taped. Discussions were conducted in English. Following verbatim transcription, data were collected and analysed according to the principles of framework analysis (Carter et al., 1999).

Field Observation. For the purposes of triangulation (Hammersley, 2008), two field observations were conducted: one study session on Fundamental Mathematics with one tutor and three tutees, and another session on Chemistry with a tutor and nine tutees. Informed consent was sought and detailed field notes were taken with the sessions audio-taped.
Data Analysis. The transcripts and field notes were read three times for emerging themes according to the principles of framework analysis (Smith & Firth, 2011). From the refining of emerging themes and categories, a whole picture eventually emerged with associations and concepts clarified and grounded in participants’ data. The reflections of the researchers were a necessary process and a continual checking back to interview transcripts and field notes was a fundamental premise of the rigorous data analysis.

RESULTS AND ANALYSIS
This study resulted in the uncovering of two major themes: Informality and Power Distance, and, Intended Outcomes and Learning Strategies that answer the three research questions.

Informality and Power Distance
PAL sessions are perceived as informal learning sessions where the peer tutors are viewed more as “seniors” and “friends”. Peer tutees clearly made a distinction between their lecturers and tutors:

*The lecture time is limited. The lecturers provide us the consultation hour but there will be many students, so I won’t get the time to sit and discuss with the lecturer. We get to study face to face with the tutors. [P6_Tutee Interview]*

*(Peer tutor)... is a friend who can help us to um.. to do better in the subjects. I mean like, um... if I study alone, I sometimes.. I cannot understand some of the concepts so I need someone to teach me.*

[P9_Tutee Interview]

In Southeast Asian culture in general and Malaysian culture in particular, there is respect for elders and people of higher, social positions with an emphasis on group orientation and face-saving (Zawawi, 2008; Talib, 2010). The power distance between Malaysian lecturers and students is considered as high, that is, there is the acceptance that one is superior and the other is inferior (Hofstede, 2001; Sanderson, 2007). Hence, the tutees would not often question the lecturers in class even when they did not understand the concepts taught as persistent questioning would be seen as challenging the lecturers and also, showing ignorance on the part of the students and hence, displaying a “face loss.”

Conversely, as tutors were perceived as their peers and friends, the power distance between them is low, leading to both groups behaving in an informal manner, free of the usual constraints of the normal classroom. This behaviour was observed in Field Observation 2 where the participant, P1, continually asked questions and interrupted the tutor. If she was not satisfied with the answers, she would ask for further clarification, “slow down, slow, down, I don’t understand.” Such behaviour is seldom seen in Malaysian classrooms. P1 was asked after the observation for the reasons for her persistent questions and clarifications and she explained that unlike
in the classroom, where her questions could lead to a delay in the classroom teaching, in the small, intimate learning session, she was on friendly terms with the tutor and “felt at ease.” Her peer tutor, Sam (an alias), was observed to be friendly and supportive of P1’s questions and continually smiling with encouraging body language. The other eight participants in the observation group were accommodating of P1’s questions with tutee P8 asking an extension of P1’s question.

The low power distance (between tutors and tutees) thus bred an informality in these learning sessions and could probably be a significant factor for tutees to learn better with many expressing that they were able to learn “comfortably” with the term suggesting more informal learning practices in a group setting.

For the peer tutors, the low power distance enabled them to position themselves as “friends” and they were thus able to communicate more effectively:

> They (the tutees) might not be comfortable at the beginning so as a tutor and as a friend I tried some other way to guide.
>  
> [P7_Tutor Interview]

The usual classroom rules do not apply in such learning sessions:

> I don’t have any rules to restrict them so they can do anything they want they can ask anything.
>  
> [P3_Tutor Interview]

While the tutors positioned themselves as “friends” of the tutees, they also expected their juniors to accord them with respect given to seniors. Generally, respect was observed by tutees who knew the tutors as “seniors who passed their subjects with good grades.” When the power distance became too low, as in one instance, tutor P8 expressed his concern:

> …this bunch of students they were like really really acting friendly they don’t care about being a senior junior relationship.
>  
> [P8_Tutor Interview]

Among the peers, there was the perception of power distance, with the peer tutors expecting to be accorded the respect due to their senior, social position. This appears in accordance with Malaysian societal norms and beliefs (Zawawi, 2008; Talib, 2010).

**Intended Outcomes and Learning Strategies**

It was evident that peer tutors and tutees had similar goals for their learning sessions and that was for the tutees to improve their academic performance in the courses they were tutored:

> …they know where’s the difficult part for the subjects and then they teach us the tips, how to score in the subject, and then they like sum all the important points in the subject and they just tell us the main point.
>  
> [P6_Tuttee Interview]
Peer tutors drew on their own learning experiences and strategies to share with the tutees. As they were supplementary to the lecturers in terms of delivering knowledge, tutors concentrated on explicit metacognitive learning strategies such as below:

I used strategy like how I used to learn...I used mind map and suggested them (the tutees) to memorise some of the Mathematical formula. I asked them to go back and do their own notes.

[P8_Tutor Interview]

I found my very own techniques of way to study and I transferred (the skill) to them (the tutees) and make it (the learning process) more interesting.

[P7_Tutor Interview]

Mind-maps, diagrams, charts, exercises and the writing of notes were used to clarify tutees’ understanding of concepts. The tutors did not believe in “spoon-feeding” and expected tutees to read on topics they assigned and to discuss and ask questions:

For example, in a peer learning session we have to let the students to communicate (with) each other. if someone don’t know anything, we should let the others participants... to answer the questions that a person do not know. So we are just facilitate in case there are something wrong or misunderstand from I mean the answer from other student, will try to correct them.

[P6_Tutor Interview]

In the two field observations, tutors shared their strategies (use of mind maps, charts, symbols, notes) on how to understand the concepts taught. References were made to how these strategies achieved success for them in their examinations. Participants were told of these “tips” as derived from tutors’ “trial and error experiences.” Thus, peer tutors were more likely the strategic learners who “have metacognitive knowledge about their own thinking and learning approaches, a good understanding of what a task entails, and the ability to orchestrate the strategies that best meet both the task demands and their own learning strengths” (Rahimi & Katal, 2012, p.74). Consequently, in these communities of practice (Lave & Wenger, 1991), tutees learnt from their tutors and peers metacognitive strategies such as the selection, planning, monitoring and evaluation of the thinking processes in order to change their learning behaviours and produce better academic learning (Ridley et al., 1992; Oxford, 2003).

Peer tutors were aware that their role was to provide supplemental instruction as they provided explanations and exercises based on the lecturers’ pace of delivery in class:

yeah of course because for me I usually go to the lecturer and asking them where asking the students of like, where did your lecturer stop...
so that I can follow like go on with the lecturer, so that I will not go too fast or too slow behind the lecturer so I will also go back to the lecturer whether to ask the lecturer of how like whether did she know about this student or not.

[P1_Tutor Interview]

Higgins et al. (2014) found that peer tutoring is most effective when it is in the form of supplemental instruction. In this study, peer tutors provided academic support to lecturers as they were aware that their content knowledge was not comparable to their lecturers. In the focus group interviews, some tutors mentioned that there were occasions when they could not answer some of the questions asked. Their strategy to manage this issue was either to read up and explain in the next lesson or to check with the lecturer in charge. In Field Observation 2, Sam (an alias), the peer tutor, was observed explaining in a segment of the class that she did not know the answer to one question posed by P1. She would, however, check on this topic and provide a reply later. The tutees accepted her answer easily, suggesting that they probably had limited expectations of the peer tutors’ content knowledge.

According to the tutors and tutees, their intended learning outcomes of improving academic performance in the selected courses were generally met. As attendance in the peer learning sessions was voluntary, the peer tutors estimated that they were able to help around 60-75% of each of their learning groups. Some tutees would not be present for some of the sessions or they would not do the exercises assigned or participate actively in these sessions. Some comments on the positive outcomes include:

I can know better the subject. The way the mentor teaches us. Like sometimes I don’t know what to do the exercise, but after a few days of that session, I can do that exercise.

[P8_Tutee Interview]

I got 4.5/5 for my test, I can say it is not bad.

[P1_Tutee Interview]

Aside from improved academic performance, the tutees gained unexpected outcomes like “friendship” and experienced attitude and behaviour changes:

Communication. I started to ask a lot of questions, yeah, in lecture too. Last time, I scared to ask question in the lecture because the lecture will be a lot of people.

[P6_Tutee Interview]

Peer tutors also achieved their intended outcomes: they reported satisfaction from their tutees’ improved results and enhanced time management, planning and communication skills as consequences of their participation:

After the semester ends, they (the tutees) texted me and told me their
results were good... So I think I helped them.

[P4_Tutor Interview]

Greater self-confidence and satisfaction with themselves was also reported by both the tutors and tutees.

DISCUSSION

The findings in this study are consistent with the results of major studies conducted on peer assisted learning: there was improved academic achievement (Glynn et al., 2006; Higgins et al., 2014); enhanced social and self-concept outcomes (Ginsburg-Block et al., 2006); skills enhancement and reinforcement of positive attitudes towards future social responsibilities (Buckley & Zamora, 2007).

This study yielded two interesting and relevant findings which may have implications for the development and implementation of PAL in higher education. The informality observed and reported by participants suggested that the low power distance between tutors and tutees enabled more co-operative learning styles to be adopted, where meanings derived from knowledge were shared and negotiated (Sanderson, 2007). These resulted in changes in attitudes and learning behaviours such as greater ownership of the learning process and the ability to ask more questions.

The low power distance between peer tutors and tutees interestingly in the context of Malaysia can lead to the problem of some tutees not according some tutors with the respect the latter expect as seniors. In a hierarchical society such as Malaysia, there is some power distance perceived among peers (Zawawi, 2008; Talib, 2010).

The second major finding in this study concerns the explicit use of metacognitive learning strategies to facilitate the learning. These strategies appear to be instrumental in making the learning easier and more effective for the tutees. This is consistent with Arendale (2007)’s finding that, for peer learning programmes to be successful, there must be intentional embedding of learning strategy practice with review of academic content. The contribution of this study, in terms of new knowledge, lies in its rich and textured descriptions of these practices and their relationships to the intended outcomes in the Malaysian context in general and UCSI University in particular.

The expectation of the peer tutors was more to “guide, facilitate, help, and teach”. On the contrary, the peer tutees came to the PAL program with the expectation to learn and to “get to know the subject better”. However, as similar to recent findings of Hodgson et al. (2014) which reported a “reciprocal fashion” of peer mediated learning, the roles of tutors and tutees can potentially be interchangeable (Buckley & Zamora, 2007).

From the perspectives of peer tutors and tutees, the PAL study sessions has had successful extrinsic outcomes which directly impacted the enhanced examination scores of tutees. Some of the successful intrinsic outcomes were increased confidence, happiness, and satisfaction. It was apparent that both parties did not expect to improve
their skills (listening and speaking) and self confidence. Enhanced social interaction and engagement led to the development of friendships, a recurring theme of this study. Friendships thus become the social glue that connects the members in these communities of practice. In this informal and “safe” learning environment, tutees could control their own learning more effectively (Parkinson, 2009). The degree of confidence and trust that are developed through these friendships create a better learning environment (Longfellow et al., 2008).

A concern that has been expressed is that the quality of tutors in PAL can in fact lead to a decline in the effectiveness of PAL (McMaster et al., 2006). Tutors were generally chosen as they were proficient and adept in the courses they taught. As such, tutees would perceive the information provided by the tutee as “immediate and useful” and “believable and relevant.”

Thus, inexperienced or new tutors faced difficulty in managing big groups of tutees (8-10 tutees). In Field Observation 2, a skewed group dynamic was observed as one participant was actively asking questions while the rest of the group kept quiet. It is therefore recommended that training in managing group dynamics for tutors and tutees is necessary as this would result in a more effective peer mediated learning (Ning & Downing, 2010).

CONCLUSION
This study provides preliminary yet important evidence to support intentional PAL in higher education. The contribution of this study lies in its layered and dense descriptions of participants’ experiences and views on peer learning. It opens for the reader a window into how peers learn from one another in order to achieve their intended outcomes. The limitation of this study is its small sample size and the qualitative methodology used would not enable its findings to be generalizable across other contexts. However as attention has been given to the quality and rigour of the design, conduct and analysis of the study, the findings here may be able to reveal its validity and trustworthiness and be transferred to other contexts in higher education.

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