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The Experience of Class Tutors in a Peer Tutoring Programme: A Novel Theoretical Framework

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Cover Page Footnote

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Tim Outhred and Andrea Chester

ABSTRACT

The following paper presents the first known examination of the experiences of class tutors within a peer-assisted learning program. Three female first-year class tutors, aged 25-28 years, provided insight into how they experienced a novel peer tutoring program embedded in their tutorials. Using grounded theory techniques, it was found that the following five themes underlie their experiences: *role exploration*, *sharing responsibility*, *regulation of the peer tutored groups*, *harnessing the peer tutors' role*, and *community*. Literature from the domain was examined post-hoc and was found to complement these themes. Additionally, it was found that class tutors were beneficiaries of the program. It was suggested that future research address the limitations of the present study and test a number of hypotheses within a novel theoretical framework. The hypotheses were constructed to include the key roles within embedded peer tutoring, and learning climate typologies and dimensions (Little, 1975).

INTRODUCTION

Peer-assisted learning (PAL) programs have been well evaluated over the past two decades (Topping, 2005). Though the terms 'peer mentoring' and 'peer tutoring' are not interchangeable, research on these modes are comparable (Topping). The peer mentoring relationship is characterised by the support of a more experienced peer, whereas the relationship of peer tutoring is based on a curriculum or another highly-structured program (Topping). The focus of PAL program evaluations, however, has typically been on the experiences of the peer-assisted learner (e.g., Heirdsfield, Walker, and Walsh, 2005), the experiences of the peer assistant (e.g., Heirdsfield, Walker, Walsh, and Wilss, 2008), and the interactions between peer-assisted learner and peer assistant (e.g., Hill and Reddy, 2007; Topping and Ehly, 2001). Colvin (2007) states that the experience of and interactions with the class tutor are yet to be understood, despite the fact that the class tutor is a pivotal figure in emerging PAL models, particularly those with an embedded approach.

The emergence of the embedded peer tutoring approach

Many popular PAL programs take the 'opt-in' ('add-on') approach such as 'study buddy' groups. Hill and Reddy (2007), for example, in a program to assist the transition to tertiary education, provided contact details of interested mentees to mentors. Under the instruction of the program coordinators, mentors contacted the mentees in the first instance. Later communication was performed at the volition of mentors and mentees. Other programs use drop-in centres to provide peer-assistance for first-year students (e.g., Szymakowski, 2010). The increasingly popular Peer Assisted Study Sessions (PASS) programs (e.g., Macquarie University, 2010; University of Wollongong, 2010) are adaptations of the Supplemental Instruction (SI) model (Arendale, 1993). The foundation of PASS is the organisation of study sessions for small groups of first-year students facilitated by more later-year student peers, termed 'PASS Leaders' (Macquarie University; University of Wollongong). PASS Leaders participate in training that

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concentrates on equipping them for working with groups, re-directing questions, developing study skills, and planning activities (Macquarie University; University of Wollongong). The PASS sessions integrate course content with academic reasoning and study skills for first-year students (Macquarie University; University of Wollongong). The effects of PASS programs include improvement in grades (e.g., Cheng and Walters, 2009) and work-ready skills (e.g., Best, Hajzler, Ivanov, and Limon, 2008).

The key limitation of such opt-in programs is that interactions take place outside class time and some students most in need of assistance fail to take advantage of them (Heirdsfield, Walker, and Walsh, 2008; Hill and Reddy). Despite the fact that PAL programs are rated by students as valuable, usage is often limited. For example, Heirdsfield and colleagues (2005), developed a peer mentoring program to address the transition needs of first-year early childhood students. Though mentees within the program reported social and academic benefits, only 22% of the target student cohort opted to take advantage of it. Typically, registration with PASS programs is 30% of the target student cohort (Murray, 2006).

One way to address the inherent disadvantage of opt-in PAL models is to embed peer tutoring in the curriculum. In this inclusive approach, peer tutoring takes place during scheduled class time; peer tutors are therefore an integral part of the program's planned learning and teaching activities. Embedding peer tutoring in tutorials has rewards for both students and peer tutors. Chester, Xenos, Ryan, Carmichael, and Saunders (2009), conducted a randomised controlled trial evaluation of a peer-to-peer (P2P) model in which peer tutors worked with small groups of five first year psychology students in the second hour of tutorials. Results suggested advantages of the P2P model on retention and pass rates, as well as academic performance and self-efficacy. Telley and Chester (2009), in a replication with first year engineering students, found the model was similarly associated with increased student retention and pass rates, academic performance, and wellbeing in comparison to non-peer tutored students. Moreover, peer tutors within an embedded peer tutoring program have been shown to experience greater verbalising self-efficacy, self-esteem, and sense of belonging to the learning community due to participation (Chester et al., 2009).

Missing from this analysis is an examination of the experience of classroom tutors. The classroom tutor in an embedded peer tutoring program is asked to take on a different role to their usual tutoring role. During the peer tutoring segment of the tutorial, the classroom tutor remains in the room and available to the small groups, but she remains in the background. She may be called on for clarification. She may need to correct misinformation and, at all times, she needs to work sensitively so as not to disempower the peer tutor. Little is known about how classroom tutors, many of whom are post-graduate students and employed casually, with varying levels of teaching experience, manage the demands of working with peer tutors in their classroom.

A grounded-theory-based methodology

In order to investigate the role and experience of class tutors within the P2P program, a grounded theory-based methodology was employed. This qualitative research approach, which encapsulates a variety of variations, is characterised by its investigative nature, searching for answers to questions and understanding lived experiences, rather than seeking to test a hypothesis against a particular sample or quota of data (Glaser and Strauss, 1967). The procedure of grounded theory-based analysis includes simultaneous involvement in the collection and analysis of data, theory development, the construction of analytic codes and categories from data (Charmaz, 2006; Walker and Myrick, 2006; Willig, 2008). The constant-comparative method is used during the analysis, involving memo-writing to elaborate categories and define the relationships between these categories (Charmaz, 2006). This method allows the researcher to explore participants' experiences of the phenomenon and the meanings attributed to these experiences, constructing a conceptual framework within which these are organised (Walker and Myrick, 2008). The conceptual framework, or theory, is intimately linked to the reality of the individuals being studied (Willig, 2008).

A major benefit for the participants of grounded theory research is that they themselves come to understand their lived experiences, or the experiences of individuals like them (Willig, 2008). Furthermore, this methodology is useful in formulating hypotheses for seamless transition from qualitative to quantitative study, thus providing clear paths for future research (Charmaz, 2006). For these reasons the techniques of grounded theory were adapted for this examination of the role of class tutors in embedded peer tutoring programs.

Rationale and Aims

As noted above, the literature has focused on the interaction between peer tutors and students and largely ignored the role of classroom tutors. There are two potential reasons for this focus. First, PAL programs generally have the primary aim to make improvements in student variables such as attendance and attrition, wellbeing, and academic performance, and as a secondary aim, to improve these variables for peer tutors (Jacobi, 1991). Consequently, program development and evaluation have been centred on these two roles. Second, embedded tutorial programs are relatively recent, and their aims and evaluations have followed the previous standard to demonstrate efficacy (e.g., Chester et al., 2009; Telley and Chester, 2009). A fuller insight into the roles of all participants in embedded tutorial programs will inform the development of these programs and help develop briefing and training of the parties involved (Colvin, 2007).

In summary, the aims of the present study were to examine the experience of class tutors involved in an embedded tutorial program and investigate whether class tutors were beneficiaries of these programs. Using grounded theory methods, the focus of the investigation was on the role of the class tutor, and the manner in which this role was understood within the embedded peer tutoring program.

METHOD

Participants

The first-year psychology class tutors who taught in a P2P program embedded in first year psychology tutorials in first semester, 2009, were targeted for the present investigation. The six class tutors were invited to participate in a focus group at the beginning of the following semester. Of these six, three were able to attend the scheduled session, all of whom were female. Ages ranged from 25 to 28 years and experience as a class tutor ranged from one to four years. The three attendees were postgraduate students within the discipline; the other class tutors were external, sessional staff members.

The P2P program

The P2P program is an embedded peer tutoring approach for discipline-specific learning communities (Chester et al., 2009). The program was implemented with first-year psychology students, peer tutors, and class tutors in the researchers' local 'discipline'. The aim of the program, consistent with Kift's (2008) first year transition model, was to assist first-year psychology students acquire introductory skills in scientific writing, and to increase satisfaction, engagement, and academic performance. The program was piloted in 2008, and was consequently rolled out to all first-year psychology tutorials (178 students in 9 tutorials) in the first semester of 2009.

The P2P program has similar elements to PASS programs (e.g., Macquarie University, 2010; University of Wollongong, 2010). Second and third year students who obtained a grade point average of 70% and above were invited to participate as peer tutors. In addition to official recognition through a student leadership program, the benefits of participation in peer tutoring programs were explained in accordance with the literature. Twenty-nine students agreed to participate as peer tutors and were involved in a six hour training session. Topics such as group dynamics, facilitation, and learning styles were explored; one hour was dedicated to discipline specific information. Peer

tutors were provided with a manual structuring the weekly content of each session. A two hour follow up session was conducted later in the semester. Peer tutors entered the classroom in the second hour of their allocated tutorial and facilitated a small group (on average six students). The program involved seven sessions over the 12-week semester and focused on the management of the psychology laboratory report assignment, the major assessment for the semester.

The six class tutors were briefed on the P2P program and participated in ongoing discussions with the course coordinator. They were also provided with the peer tutors' manual. Each peer tutor was allocated five or six students.

Materials
Six non-directive, open-ended questions primarily concerned with the role of the class tutor were used as prompts in the focus group. In order for the class tutors to conceptualise this role, questions pertained to the role of the peer tutor as a comparison and the manner in which the role of the class tutor changed with the addition of the peer tutors. Additionally, aspects they had learnt about their teaching and the effects of the peer tutoring program beyond the classroom were further topics of discussion. Further questioning during the focus group was used to explore the participants' answers. The focus group was recorded and was transcribed for analysis.

Procedure
Participants were briefed on their rights and their role in the study. The primary researcher was engaged as the interviewer. Though every endeavour was made to promote open responses, it should be noted that the interviewer was involved in the peer tutoring program as a peer tutor.

The interviewer encouraged the participants to bounce ideas and questions off one another, allowing them to take charge and steer the discussion. The focus group lasted 60 minutes.

Data coding and analysis
Participants are referred to by pseudonym ('Tutor One', 'Tutor Two', and 'Tutor Three') to protect confidentiality. During the Thematic Analysis, two researchers coded the transcript independently. The present study followed a non-purist grounded theory approach (e.g., Glaser and Strauss, 1967); it adopted grounded theory methods due to time constraints on analysis. Categories were formed using the constant-comparative technique and were expanded and defined using memos and models (Charmaz, 2006; Walker and Myrick, 2006; Willig, 2008). The two sets of results were compared to increase reliability, and a final set of themes that both researchers agreed on was used in the analysis. As recommended by both Charmaz and Willig, further data collection was undertaken in order to achieve saturation of the results. This involved an additional meeting with Tutor One. Both meetings were minuted. The focus group transcript and notes, memos, and meeting minutes were used for the analysis in accordance with grounded theory methods.

RESULTS

Thematic Analysis
A number of major themes concerning the experience and role of class tutors within an embedded peer tutoring program were established. To support each theme, excerpts of discourse are presented.

Role Exploration
The class tutors noted some initial confusion about their own roles and responsibilities as well as those of the peer tutors. The primary confusion appeared to be related to content, with the tutors unclear about their responsibility for presenting aspects of the tutorial content. As Tutor 2 noted, "[it] was confusing … at the

beginning [of the semester], not knowing [what the peer tutors] were meant to teach, [what] was I meant to teach?".

As time went on, however, the roles became clearer and class tutors noted their increasing confidence in the peer tutor embedded environment. This was in part the result of a decision by the course coordinator to have the tutors facilitate the transition between the first and second halves of the tutorials by covering a small amount of material related to the lab report in the presence of the peer tutors. Early feedback from the tutors revealed concerns that inconsistencies between peer tutors was resulting in inequities for the first-year students. As a result the course coordinator instructed tutors to use the first part of the period when peer tutors were present to introduce issues to the entire class, leaving peer tutors to facilitate discussion with their small groups around these issues in the remaining time.

This adjustment to the operationalisation of the program had the added benefit of consolidating the tutors' role, reassuring tutors of their authority and responsibility in the classroom. As Tutor One commented, this clarity around role brought with it increased confidence:

"...I think towards the end of the semester we all took on … more authority, kind of gave out the information in say the first half hour of the last hour and then the peer tutors had that … time to clarify what we had said".

Despite the frustrations associated with the initial lack of clarity around roles, the tutors noted that the introduction of peer tutors challenged them to reflect deeply on their own roles and pedagogical approaches. For the experienced tutors, who had taught the material many times, this role exploration brought with it fresh insights and they welcomed the opportunity for reflection. As Tutor One, one of the most experienced tutors in the discipline, observed:

"[…] it makes us more mindful of our roles and it gives us opportunity to reflect on teaching practice. [...] we are getting a lot of learning experience, even if we are teaching something for the 50th time… which is nice".

The practice of the class tutor's new role is explored in the following two themes.

Sharing responsibility

The class tutors described the experience of delegating tasks and responsibilities, overtly and covertly, between the peer tutors and themselves. As Tutor Two shared, at the beginning of the semester the class tutors held the impression that much of the responsibility of teaching assignment skills and providing information on assignments was with the peer tutors:

"It was a shared responsibility that I felt at the beginning...that part of my job had been [...] taken away".

However, when the class tutors began to negotiate their new roles within the embedded tutorial environment over the semester, and as the administration of the program was modified, the responsibility previously handed to the peer tutors was somewhat relieved. As Tutor Two explained, the peer groups were easier to manage when she took back the responsibility:

"[...] once I took that back, it felt a lot more normal and it just felt like there was [peer] group discussions that I didn't have to get feedback from".

The class tutors also described the responsibilities that were successfully shared between themselves and the peer tutors over the semester. Both Tutor One and Tutor Two argued that peer tutors took on the role of providing information on some of the 'process' elements of completing an assignment including project and time

management; database research skills and tips; stress management; and encouraging students to gain assignment-related support from peers, peer tutors, and the teaching staff within the discipline-specific learning community. In contrast, the class tutors provide information pertaining to the 'content' of the assignment by explaining the elements that should be included in each section. Finally, as the focus of attention was on the peer groups during the sessions rather than on the class tutor, the class tutors came to see that the peer tutors aided their students to socialise with each other. In a standard tutorial setting, this function was more difficult for class tutors to facilitate themselves.

Regulation of the peer tutored groups
The class tutors explained that their new role within the embedded tutorial involved the supervision of the peer tutored groups in order to control for peer tutors' errors in explanations. When an error arose, the class tutors felt they had to intervene without affecting the within-group dynamics. Tutor Two shared:

"I actually had the unfortunate incident of a few blatantly wrong things in regard to assessment being said and I found that really, really difficult to address".

The experienced class tutors explained that they have become acutely aware of the varying power differentials between themselves and the different year levels of students. As Tutor Two revealed: "There is a much bigger power differential between [class] tutor and first-year students than between a [class] tutor and second and third year students". Therefore, class tutors were cautious not to appear to have authority over the peer tutors when errors in explanation were resolved. As Tutor Two explained, class tutors knew that the students would only turn to them for answers if all authority was taken from the peer tutors.

"[... I had to work it over] with the peer tutor without saying, 'You are saying it all wrong'."

Tutor Three outlined the manner in which she managed questions from students without "[...] undermining the peer tutor [...]". This class tutor encouraged students in her class to ask their peer tutors first, before seeking her advice. The tutor would then address the entire class with the query as other groups may require the information. The class tutors found this approach to be useful, allowing them to monitor information flow and support the valuable interactions between peer tutors and first year students.

Class tutors regulated the peer tutored groups in a second way during the many occasions when they found that the peer tutors were providing too much assistance to students. Tutor One explained that:

"[The peer tutors] told [students] what to write [in their assignments] in a lot of instances".

As Tutor One further suggested, class tutors had to intervene under these circumstances, again sensitively, without damaging the within-group dynamics or the self-esteem of the peer tutors.

"I had to pull [the peer tutor] back and say, 'How about we approach it in another way?'. [...] They were so enthusiastic that the next week they were still telling the students, 'Oh write this and write that'."

The class tutors acknowledged that peer tutors might have provided excessive assistance to students outside of the tutorial sessions, behaviour that can only be discouraged but not controlled.

Harnessing the peer tutors' role
The class tutors noted that the peer tutors had a valuable and distinct role to play within, and beyond the embedded tutorial. Class tutors nurtured this role by allowing time for students and their peer tutors to discuss topics that were beyond the focus of the tutorial on a given day. According to the class tutors, such topics included experiences of second and third year of the degree, plans for further studies, locations of facilities around and outside the campus, extracurricular activities, managing study-work-life balance, and using the University's information technology systems. As Tutor One noted, the peer tutor role is unique due to the 'peer' aspect:

"[... the class tutors] can try and be transparent about second and third year and things they might encounter, but nothing is better than hearing it from [a peer] who is living it at that moment".

Additionally, class tutors explained that peer tutors may be less professional than the class tutors. Tutor One expressed that in her experience teaching within a standard format tutorial when students complained about teaching staff, she would have to "[...] tow a party line". As Tutor One further articulated, class tutors found it beneficial to allow students to have discussions regarding the teaching staff or courses that they liked or disliked with their peer tutors as "[...] sometimes a student can benefit from a bit of a heads up about things that we can't tell them". The class tutors emphasised that they worked in tandem with peer tutors to create a more dynamic and comprehensive learning environment, in comparison to a standard format tutorial.

Community
The previous themes are concerned with the roles of peer tutors and class tutors in the embedded tutorials. This final theme, in contrast, describes the broader context. The class tutors agreed that the greater social and learning environment of the discipline was positively transformed with the addition of the embedded peer tutoring program, and that they were a part of developing this new community. As Tutor One reflected, the class tutors were more socially connected than before, underscoring that the class tutors were beneficiaries of the program:

"[...] I don't think there was a [tutorial day] that went by when the [class] tutors didn't get together at some point [...] just talk about how [we] are progressing".

The class tutors also expressed that the students within the Discipline were more socially connected with each other. Tutor One described an experience she had:

"[...] I saw a bunch of my first-years talking to their peer tutor and they had obviously bumped into each other on their lunch breaks [...] I thought that is really nice to see that they have got that point of reference".

The class tutors acknowledged that the joined efforts of peer tutors and class tutors to improve the student experience created a unique interaction. As Tutor One revealed, peer tutors shared stronger relationships with the teaching staff, which added to a sense of community. Tutor One concluded her perspective on the embedded tutorial program by stating:

"...[It] signals to the students and [other] faculties that the [Discipline of Psychology] is really about innovation and it is always orientated to the student[s'] best interest".

Follow-up on the Thematic Analysis
The follow-up discussion with Tutor One extended to approximately 25 minutes. She confirmed that the thematic structure detailed in the previous section was congruent with her recollections of the experience of class tutors within the P2P program. Therefore, saturation of the results was gained. Tutor One reinforced the notion that the class tutors were beneficiaries of the embedded peer tutorial program.

DISCUSSION

The aims of this study were to examine the experience of first-year class tutors involved in the P2P program and to investigate the benefits of this program for class tutors. Three interviewees provided data from which five underlying themes were extracted, describing the experiences of first-year class tutors working with peer tutors: *role exploration*, *sharing responsibility*, *regulation of the peer tutored groups*, *harnessing the peer tutors' role*, and *community*. These themes were confirmed in a follow-up discussion with a class tutor. Analysis of the qualitative data suggests that although the peer tutoring program was new and challenging, classroom tutors benefit from the inclusion of peer tutors in their teaching.

The most poignant theme to emerge was that of *role exploration*, the class tutors' process of negotiating a different way of operating within the new classroom environment; this was one of the most time consuming and confronting aspects. Class tutors experienced a level of confusion, as well as a degree of stress, while making this transition. Though the class tutors made adjustments to their role in the P2P program over the course of the semester, the critical moment for this process was understood to begin in the first tutorial with the peer tutors. Colvin's qualitative examinations revealed a similar experience for peer tutors in terms of fine-tuning their role as a result of practice. Therefore, both peer tutors and class tutors can be said to undergo role exploration. The process was rewarding for class tutors as it offered an opportunity to reflect on pedagogical practice. Two distinct areas of 'role exploration' which appear to branch off this key node—*sharing responsibility* and *regulation of the peer tutored groups*—were raised by class tutors and are described below.

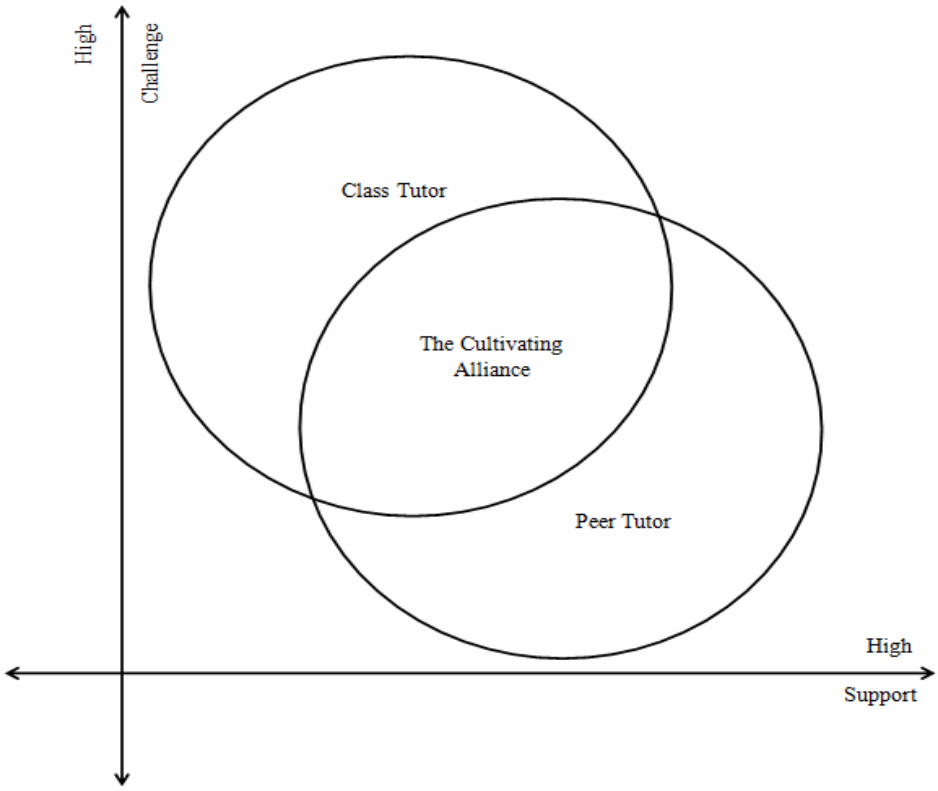
Sharing responsibility covered both the overt and covert negotiations between the class tutor and peer tutors in terms of roles and tasks performed in the classroom. It appeared that the class tutors' negotiations became more overt throughout the semester, thus reducing role confusion. Certain tasks were negotiated on a weekly basis, with some class tutors addressing the entire class at the beginning of each session. For example, the responsibility for providing assistance with the non-academic aspects of completing assignments was overtly delegated to the peer tutors. Researching and time management were examples of the non-academic aspects of assignment writing. The more covert negotiation of responsibilities included providing social support, in that peer tutors carried out this implied role more so than the class tutors. The addition of peer tutors to tutorials clearly changed their learning climate.

Little's (1975) typology of learning climates depicts the variations in students' perceptions, measured along two dimensions of their learning experience at university. The first of these dimensions is termed *challenge*—the degree to which the learning environment is intellectually stimulating for students (Australian Council for Educational Research [ACER], 2009; Little). The second dimension, *support*, is defined as the extent to which the learning environment assists the students in learning and provides a sense of inclusion within the university community (ACER; Little). Four learning climates are described along these two dimensions. Two climates are of particular importance in the present context. The *indulging* learning climate stems from the discernment that the environment is low on the challenge dimension and high on support. The most productive learning climate is the *cultivating* environment, which includes both challenge and support (ACER; Little).

Peer tutoring programs, like the P2P program, construct cultivating learning environments; both the class tutor role and the peer tutor role appear to work toward generating this climate. However, it seems that the class tutor is better able to concentrate efforts toward developing the *challenge* aspect as the peer tutor takes over efforts in developing the *support* aspect. This relationship, which we have termed the *cultivating alliance*, is displayed in Figure 1. In the experience of the class tutors in the present study, they needed to hold the responsibility of directing and balancing the

challenge and support aspects of the learning climate with regards to their own teaching, as well as the involvement of peer tutors.

Figure 1



The roles of the class tutor and the peer tutor in alliance to form a cultivating learning environment based on Little's (1975) typology of learning climates

The third theme, *regulation of the peer tutored groups*, underpinned the additional area of the class tutors' role exploration. This was defined as the class tutors' monitoring and management of errors of both content delivery and the level of assistance provided by the peer tutors to their group of students. With reference to Little's typology of learning climates, instances where the class tutor regulated the peer tutored groups in turn balanced the level of *support* provided. This prevented the creation of an *indulging* environment. Nonetheless, the supportive contributions that the peer tutors brought to the classroom were seen as valuable by the classroom tutors.

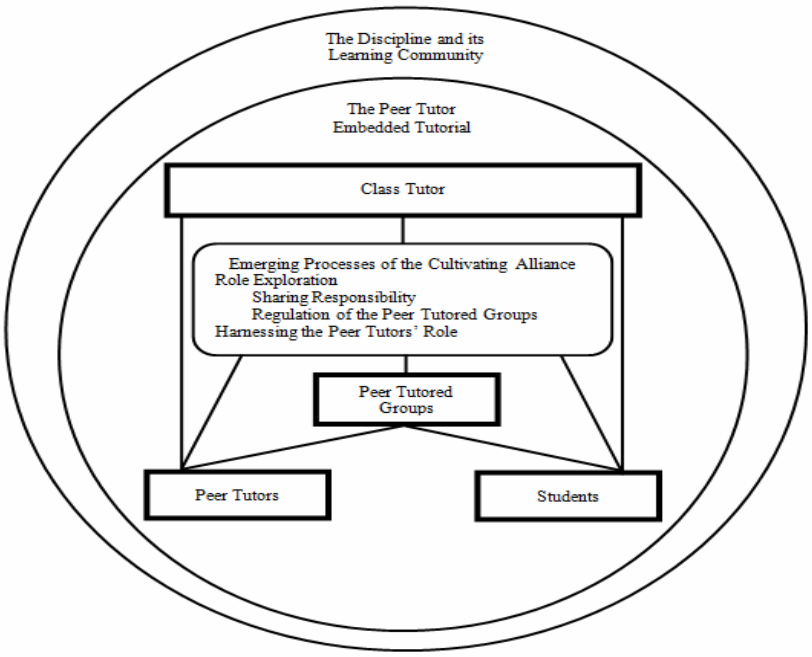
Harnessing the peer tutors' role, the fourth theme that arose from the data, can be defined as the combination of knowledge and social factors that differentiate peer tutors from class tutors. Peer tutors were able to be less professional than class tutors, providing 'insider' information about the quality of the course and the discipline's staff. Additionally, the peer tutors were seen as socially closer to students than class tutors, as the power differential between class tutor and student was perceived to be greater in the latter relationship. The findings from Colvin's investigations support these notions of credibility, power, and insight that set the role of the peer tutor apart from that of class tutor.

The final aspect of the peer tutoring experience for the class tutors was the theme of *community*. This was defined as the unique social environment that arose from having the P2P program across multiple tutorials within a discipline-specific learning community. The data classified under this theme suggest that the connection between class tutors increases upon introduction of an embedded peer tutoring program. Some

aspects of this connection are considered instrumental (for gaining information and tips), while others are deemed supportive (group cohesion and the lifting of morale). Additionally, the class tutors felt that they supported the bonds between peer tutors and students. Finally, the peer tutoring program provided a sense that the discipline is concerned with the wellbeing of students and staff. Topping concludes that PAL contributes to an ethos and cultural norm of helping and caring, as well as a sense of community cohesion. Therefore, class tutors, like students and peer tutors, may be beneficiaries of embedded peer tutoring programs.

In order to better conceptualise the experience of class tutors in embedded peer tutorial programs within a community a framework was developed. As illustrated in Figure 2, the community circle consists of academics and students within the discipline and that group's collective values and goals. Within the community lies the coordination of the peer tutoring program, which influences the training and curriculum of the peer tutor-embedded tutorial. The tutorial includes the class tutor and peer tutored groups, further composed of peer tutors and students. The cultivating alliance, described previously, is also included. The present study has defined four processes that occur from the interactions between the class tutor and the others in the tutorial. Topping and Ehly's model of the interactions between peer tutor and student is seen as complementing the entire theoretical framework. These researchers have combined, what appears to be, an all encompassing model of aspects including organisation, engagement, communication, metacognition, affect, and management. The present study's model could be used to inform the development of and the training within peer tutoring programs in the future. First, the model implies that class tutors' adjustment to such a program may be made quicker and less confusing if the process of *role exploration* were to be discussed in their training. Second, the training of both peer tutors and class tutors together on the aspects of *harnessing the peer tutors' role* and the *cultivating alliance* may streamline the co-operation between the two groups in order to clarify the delegation of responsibilities and improve the regulation of peer tutored groups. Finally, peer tutoring programs could be marketed on the lines of 'building learning communities'. As Colvin suggests, future investigations should focus on all the roles within a peer tutoring program in order to account for each of the process involved.

Figure 2



A proposed theoretical framework for the study of embedded peer tutorial programs within their wider context

Other areas that future research should address include the limitations of the present study. First, though effort was made to create an honest forum, the class tutors may have censored their responses as the interviewer was a peer tutor in the P2P program. Future examinations may employ independent interviewers in order to encourage open responses. Second, the conclusions drawn are limited to the data examined (Charmaz, 2006; Willig, 2008). The conclusions may have been different had the remaining half of the class tutors attended the focus group and provided their insights. Perhaps independent interviewing or some incentive would encourage a greater response rate. Third, although the theory that emerged bears relevance to a wider field, no statistical conclusions are possible (Charmaz; Willig). Further, grounded theory research is highly descriptive and has a wealth of meanings that other researchers could interpret in different ways (Charmaz; Willig). Future investigations may employ quantitative research methodologies in order to limit the possibility of researcher bias. Finally, the present study's findings are limited to the particular adaptation of an embedded peer tutoring program which was used in the discipline. Researchers are encouraged to test the present study's findings against their own in consequent examinations.

In conclusion, the five themes that arose from the grounded theory investigations appear to be dimensions of the experiences of class tutors within an embedded peer tutoring program. These themes can be seen to exist within a wider theoretical framework with multiple levels of interaction, from the community through to the student. On the basis of these findings a series of hypotheses were derived that may form the basis of subsequent quantitative research: (1) students and class tutors participating in a peer tutor embedded tutorial would perceive their learning climate as more *cultivating* than students and class tutors not participating in a peer tutoring program, (2) class tutors would perceive their role as embodying the *challenge* aspect of Little's typology of learning climates, (3) class tutors would perceive that peer tutors embody the *support* aspect of Little's typology of learning climates, (4) students would perceive that class tutors embody the *challenge* aspect of Little's typology of learning climates, (5) students would perceive that peer tutors embody the *support* aspect of Little's typology of learning climates, and (6) class tutors, like students and peer tutors, would be beneficiaries of PAL programs. Consequently, the present study has suggested a number of ways in which researchers may further examine the various roles within embedded peer tutoring/mentoring programs.

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