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Matthewman, L.J., Nowlan, J. and Hyvönen, K.

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**Reciprocal peer coaching: a constructivist methodology for enhancing
formative assessment strategy within undergraduate business
education**

Reciprocal peer coaching: a constructivist methodology for enhancing the use of a formative assessment strategy

Reciprocal peer coaching (RPC) as a form of peer assisted learning has an important part to play in formative assessment strategy. The primary objective of this article is to evaluate the effective use of reciprocal peer coaching as a formative assessment strategy. A multi method phenomenological research design was employed using purposive sampling. Seventy students completed a qualitative focused questionnaire survey asking them to reflect on their experiences of reciprocal peer-coaching relationships. Content analysis of student perceptions resulted in the emergence of key themes including RPC relationship process, the learning process and cognitive skills development. Powerful learning gains are reported by participants, and characteristics for successful RPC relationships examined. Overall the RPC relationship can greatly enhance deep level learning and aid the transfer of theory into practice to inform academic debate on the use of constructivist methodology for enhancing the use of formative assessment strategy within undergraduate business education.

Keywords: reciprocal peer coaching; peer assisted learning, formative assessment, self-efficacy; personal development

Introduction

Peer assisted learning (PAL) covers a range of collaborative and co-operative educational strategies that include learning and teaching of knowledge, understanding, and skills among active equal partners (Topping & Ehly, 2001). The learning and teaching strategies are self-directed through shared interventions, discussions and feedback in dyads or small groups of peers who have equivalent or different academic or experience levels. PAL encompasses different methods including peer teaching, peer modelling, peer coaching, peer assessment, and peer leadership (Topping & Ehly, 2001). When PAL methods are implemented appropriately, there are a number of benefits. PAL methods are shown to promote achievement, social interaction, transfer of skills and emotional gains such as reduced student stress (Topping & Ehly 2001 and Topping, 1996). In addition to the cost-effectiveness of the PAL methods, they are also flexible, adaptable, and widely applicable to different educational settings (Topping & Ehly, 2001).

One type of a peer assisted learning strategy is peer coaching (PC). A number of terms can be used to describe coaching: technical coaching, collegial coaching, challenge coaching, team coaching, cognitive coaching and peer coaching (Ladyshefsky, 2006). All forms of coaching share similar skill sets in the form of listening skills, asking open ended questions and feedback giving. Peer coaching (PC) is a term often used in teaching and learning. Definitions can be traced back to Ackland (1991) who defines peer coaching as a learning process involving peers observing one another and providing feedback, support, and a sounding board. Wynn and Kromrey (1999) define PC as peer observation, constructive assistance and enhancing the application of skills, resulting in alternative solution generation.

Peer coaching lends itself to a much deeper conversation (Damon & Phelps, 1989) and is highly influenced by the psychosocial aspects of the relationship (Ackland, 1991). Additional attributes of PC have been noted by Zeus & Skiffington, (2006) who advocate the importance of listening, questioning and summarizing. Increases in performance have been linked to practice and feedback according to (Ackland, 1991). Enhanced performance through practice and feedback can be viewed in terms of cognitive developmental theory. Vygotsky's theories, highlight the key role of social interaction in the development of cognition. Vygotsky, (1978), believed that community plays a central role in the process of "making meaning." from our experience of the world around us. "Learning is a necessary and universal aspect of the process of developing culturally organized, specifically human psychological function" (1978, p. 90). The Zone of Proximal Development (ZPD) is the distance between a student's ability to perform a task under adult guidance and/or with peer collaboration and the student's ability solving the problem independently. Vygotsky's work is fundamental to all later works on learning theory and remains a good starting point for debate.

Peer coaching can also be used to enhance the depth of learning in managerial education to increase greater cognitive gains. Novices can be encouraged to work together under the guidance of a tutor, through social interaction (Ladyshevsky 2006) and yield benefits for training and workplace environments (Ladyshevsky 2014). The relationship is built upon rapport, trust and confidentiality and facilitated by extensive training on coaching skills (open ended questioning & listening), contracting and reflective journal keeping in addition to experiential learning (Kolb, 1984). Equality and mutual self-disclosure are of paramount importance during the planning, and goal setting stages of the relationship. Inherent in this process are monitoring and evaluation

of the relationship. The partnership can be reciprocal with each party alternating between roles of coach and coachee.

Ladyshevsky and Varey (2005) developed a peer coaching framework, useful for understanding how the relationship develops over time. Matthewman (2008) presents a phase-function model of mentoring that is not dissimilar to the model presented by Ladyshevsky (2014). The beginning of the relationship is characterised by selection, establishing commitment, building rapport and goals setting. The middle phase involves working together and problem resolution with finally the last phase of the relationship focused upon action planning, evaluation, relationship refinement and moving forward. Matthewman (2008) adds to the eight-stage peer coaching model by highlighting the important functions of each phase. The coach or mentor starts by listening, then undertakes questioning and challenging of the client and finally the function of feeds back becomes a priority as each party focus on action planning together. Peer coaching is often brief in nature, fairly formal in style, focused on skill development, and that meetings occur on a regular basis. Equality drives the relationship and focus is on specific goal achievement. Feedback giving is non-evaluative and helps the client to reflect deeply on their experiences, which is part of the experiential learning process (Ladyshevsky 2014).

Learners are able to reconstruct their learning; constructivist learning is enhanced by using experiential learning methods such as peer coaching (Boud, 1988; Brown et al.' 1989 and Brown & Edwards, 1999) as reported by Ladyshevsky 2006. Learners also construct their own experience and are influenced by affective, cognitive and socio cultural factors. Such situational learning as described by Brown et al (1989) allows concepts to emerge through negotiations into a more in depth form. Peer coaching (PC) can thus be described as a valuable experiential learning activity, that

when used in conjunction with reflective learning logs can be useful for stimulating conversations between peers, allowing for participant interaction and feedback on practice.

Kolb (1984) details experiential learning as comprising of different stages. The first stage consists of concrete experience, followed by a second stage of reflection on practice. The third stage consists of learning consolidation which then leads to new outcomes of learning in the fourth stage. Reflective learning logs closely aligns with this cycle. Learning logs in association with reflective logs can thus extend single loop learning into double and triple loop learning processes (Ladyshevsky, 2006). However, this in-depth learning process can only be successful if the relationships are built on core conditions of trust and respect (Zeus & Skiffington, 2000). Since peers are at an equal level, the conversations are not threatening and the peers can be more open and honest in conversation. As Ladyshevsky (2006) notes, peers may also learn from one another because they provide a much greater volume of information that is generally more immediate than that which comes from an instructor. (71)

Reciprocal peer coaching (RPC) is another term often used in the literature, it can be regarded as a form of peer assisted learning that can encourage individual students to coach each other in turn so that the outcome of the process is a more rounded understanding and skilful execution of the task (Asghar 2010). Novices are encouraged to work with each other in conjunction with the support and guidance of a tutor (Ladyshevsky 2006). Each student has a vested interest in their own learning and in the learning of other group members. In order to meet individual goals, they are all working with each other in a collaborative and co-operative manner. Ladyshevsky and Ryan's (2006) study of postgraduate leadership and management students found gains in student cognitive skills as made through RPC. Similarly, in 2006, RPC was found to

enhance the depth of learning in managerial education. Additional work by Asghar in 2009, reported increases in motivational learning and increased levels of group level learning. RPC has an important part to play in formative assessment strategy as it offers the necessary scaffolding for student to work interdependently on goal achievement and feedback giving

Formative assessment

Assessment is an integral component of teaching and learning and promotes the achievement of learning outcomes, offers opportunities for new learning to take place through the feedback delivered and aids overall bench marking in relation to grading and classification. Assessment can be both formative (assessment that provides feedback to students on their learning achievements and how to improve their learning) and summative (assessment used to sum up a person's achievement),

Shepherd (2000) notes the historical development of assessment processes within the context of changing educational viewpoints. Asghar (2009) cites Ecclestone and Pryor (2003; and Shepherd (2000) by highlighting the importance of setting contemporary assessment within a socio-constructivist perspective thus promoting the integration of assessment as a means of facilitating a learning culture. Differing views of assessment exist, assessment can be regarded as purposive (Shepherd, 2000), student-focused (Boud & Falchikov, 2005) and recognise societal dimensions of learning (James 2006; Pryor and Crossouard 2008). There is growing understanding that formative assessment has great potential to provide not just feedback to enable students to make improvements and progress, but can motivate students to self-regulate their learning, affect student's self-efficacy, assist them in gaining meta cognitive skills and to develop autonomous and life-long learners

However, Bloxham and Boyd (2007) provide three conflicting purposes of assessment, these include: assessment of learning, meaning the assessment of learning outcomes; assessment for learning, meaning that the process of assessment indicates the extent of learning that has taken place and assessment as learning, meaning that during the assessment process, learning takes place, feedback is received and new learning takes place

For assessment to be effective, it needs to include motivation for learning, fairness, equity, long lasting learning and feedback processes. Formative assessment is also recognized as having value through the use of students as peer assessors (Bloxham and Boyd 2007). Therefore, learning to learn through formative assessment permits students to focus attention on reflection and make these learning experiences their own by developing new internalised understanding in relation to their own experience.

Reciprocal peer coaching as a formative assessment strategy

In workplace settings, coach and mentoring practitioners need to be able to undertake deep reflection regarding client work and complete complex solving cognitive thinking tasks. Formative assessment can be used to measure students' achievement and at the same time it can be employed to aid and assist students in their individual learning journey.

Formative assessment is useful for providing opportunities for students to act as peer assessors (Bloxham & Boyd 2007). Formative assessment is also recognised as having value as students are able to act as peer assessors (Race 2005). Peer coaching is a dialogic process that can assist students to re-organise learning and meaning as a result of their interactions with each other. The process of RPC as discussed in this research study is focused upon the dialogic process of mutual feedback as opposed to

requiring students to formatively or summatively grade each other. Providing feedback with the formative intention of identifying collaboratively how well each member is progressing towards their individual development goals was a key focus (Liu and Carless (2006) as cited in Asghar (2009)). The formative assessment process in this study was characterised by the use of real world/real time coaching sessions and documentation that elicited reflection and the completion of reflective skills logs. Students were able to practice coaching and mentoring in partnerships. Through peer feedback each student was able to carry out coaching, receive feedback and further practice to enhance their coaching competence development. Tutor feedback was received in class and formally included at the mid module formative assessment point. The formative learning is fed forward to the portfolio at the end of the module, when each student is summatively assessed individually. The summative portfolio of competence includes all previous session documentation, reflective logs and client work scenarios.

There has been growing interest in the potential of formative assessment as its benefits become known (Cross and O'Loughlin 2013). However, as the Black and McCormick (2010) comment, there is still a need for further research on how formative assessment processes might work within oral and dialogue based settings. How the potential of formative assessment might be realized within the context of higher education is therefore complex (Cross and O'Loughlin 2013).

The primary aim of this research paper is to examine the use of RPC in a group of final year business studies students as a strategy for the creation of deep level learning and the transfer of theory into practice to inform academic debate on the use of RPC as a formative assessment strategy.

Research Context

A review of the curriculum and revalidation of the undergraduate programme in 2009 provided an excellent opportunity to embrace alternative and contemporary methods of assessment, learning and teaching. In 2012, a coaching psychology module was introduced at Westminster Business School, as an optional module for final year business studies degree students. Although providing a strong academic component, the module was primarily skills-based and driven by the GROW model (Whitmore, 1992). Students spent two-thirds of the module in seminars/workshops where they carried out practical skills-based development and one-third in lectures. A reflective case study and portfolio assessment diet was introduced which permitted students to record their personal reflections and competency development with regards to the practical skills taught on the module. The module comprises of a total of 200 hours of student learning and teaching time, including 48 hours of contact time and 152 hours of structured independent learning activity. Students spend 48 hours of the module in seminars/workshops where they carry out practical skills-based formative assessment development tasks, including real time reciprocal peer coaching and 152 hours on independent learning including 12 hours, specifically spent on reciprocal peer coaching. The module is delivered intensively over a 12-week period.

The students are from mixed cultural and linguistic backgrounds with high levels of literacy and education in their first language. The students choose to take this module and so their motivation to learn is deemed to be of a considerable high level by their seminar tutors. This form of independent learning is supported by online tools and resources, physical learning space, skill development exercises, practical

demonstrations, guest speakers and tutor support and feedback. Tutors engage with peer partnerships on a weekly basis to ascertain how the relationship is progressing, what stage the relationship has reached, how goals are being achieved and what the important learning outcomes have been. In addition, one-to-one supervision and group supervision is a key component of the learning process, which also feeds into the reflective element of independent learning.

The RPC relationship resulted in students writing up one coaching/mentoring relationship as an in-depth case study (assessment one) and constructing a reflective portfolio (assessment two). Both assessments required students to include a reflective commentary on their learning and development. Thus, competency development was facilitated through self, peer and tutor feedback (verbal and written). In addition, it was achieved through a formative process which relied upon reciprocal peer coaching (RPC) a form of collaborative learning. Starr (2003) refers to collaborative coaching which she explains as partnerships working together to create highly effective conversations.

Continuous classroom based formative assessment throughout the duration of the module culminates in documentary evidence which is used for the summative assessment assignments.

Methodology

Seventy students participated in reciprocal peer coaching (RPC) and formative assessment tasks over the course of one semester as part of a 12-week long module that was part of an undergraduate business management program.

All the students were studying full time. As part of their learning process, students were required to maintain reflective learning logs that related to the content

being studied. An opportunistic, purposive sample of 70 participants was drawn from a level 6 cohorts of students taking an option module in the psychology of coaching and mentoring between 2012 and 2017.

Students selected two students to form two separate reciprocal peer coaching relationships, known as client A and client B. They were required to undertake continuous assessment tasks with these clients and complete two coaching/mentoring relationships of a minimum of 6 hours practice work per client. Thus, each individual reciprocal peer coaching relationship consisted of 6 hours, made up of four meetings, each meeting consisting of 15 minutes preparation time, 60 minutes of coaching and 15 minutes reflective write up time. The students were required to meet up on a weekly basis and additionally weekly contact time was encouraged. Students undertook face to face meetings, telephone conversations, emails and face to face skype coaching on occasion.

The overall process of the RCP was to provide students with a safe place to discuss their coaching goals stemming from real life personal and professional issues. This practical work was then reflected upon for the first formative assessment in the form of a reflective case study. Students then form one further new RPC relationships for the remainder of the module. This practical work culminates in the production of a summative reflective portfolio of competence. An iterative data collection process was employed with students completing a questionnaire compiling of open ended qualitative focused questions. As a final evaluation of their coaching relationships, students were asked to complete a reflective RPC open ended questionnaire survey that described their experience. The format for this account was as follows.

The open-ended questions were adapted from Feggetter (2007) and consisted of:

Question 1: What were your coaching objectives

Question 2: Progress achieved against achieving objectives

Question 3: Summary questions pertaining to coaching process, ratings of content of sessions, listening skills, variety of questioning and interventions, focus on needs, challenge and stretch, application to work setting, openness and honesty and commitment to applying learning,

Question 4: Feedback received from others about their perceptions of behaviour

Question 5: The contribution of coaching to on the job performance

Question 6: What was most appreciated things from coaching (critical learning points)

Question 7: How to improve coaching

Question 8: Any other comments

Students were provided with an information sheet detailing associated confidentiality issues and were then invited to complete the reflective open ended questionnaire. The questionnaire was administered to all of those who completed the coaching and mentoring module. The purpose of which was to systematically gather their perceptions about the process of RPC as a continuous formative assessment strategy. Voluntary submission of the questionnaire was taken as informed consent. The research project met the University's ethical research guidelines, all names were reported as pseudonyms.

A multi method phenomenological approach was used to illuminate the students' experience of RPC and its use as a formative assessment strategy. Student explorations of themselves as individuals and also as co-learners was an integral

component of the formative assessment process. Through understanding the context and situation of a particular student population, the phenomenological approach can provide insights into beliefs, values and culture of their world (Van der Zam and Bergum 2000). The data generated was collated and coded using conventional content analysis techniques. (Cohen, Manion and Morrison 2008), by reading and re-reading the text to identify salient themes, sub themes and issues with respect to development, skills achieved and continuous assessment. N-VIVO, a qualitative data analysis software package was used to aid analysis. Based on the reflective open ended questionnaire, the researchers developed coding frameworks that emerged from reviewing the written comments. A holistic overview of the perceptions and conceptualisations of the students was captured from the text that explained the ways in which the students accounted for their experiences and understand what this experience means from their perspective. Coding can be descriptive, interpretive or used to convey patterns (Miles & Huberman, 1994). Codes can be descriptive and refer to phenomena in the text or interpretive with meanings being ascribed by the researcher. Such first level coded were useful for summarising the data. Second order codes were then developed which were inferential and illustrated emerging themes. Documentary analysis of the student case studies and portfolios was also completed as a way of triangulating the data.

Findings

Three key conceptual dimensions emerged from the interpretation of the student questionnaires. The first conceptual dimension related to the process of reciprocal peer coaching, in other words the important factors that contributed to the facilitation of the relationship. The second conceptual dimension related to the learning process, in other words the extent to which students engaged in the experiential learning process. The

third conceptual dimension refers to cognitive developments, meaning the extent to which knowledge and competencies were enhanced as a result of participating in the RPC relationship. The conceptual framework describing the key outcomes of the RPC experience is illustrated in Table 2.

Table 1 Near here

The process of reciprocal peer coaching

A number of key alliance enablers that supported the reciprocal peer coaching relationships were described by the students. In reviewing the textual data, several sub dimensions emerge that best describe the most effective RPC relationship. These five sub domains include development goals, communication skills, techniques and tools, strength of alliance and coach characteristics. The definitions for each of the sub domains is presented in Table 2.

Students indicated that successful coaching was dependent upon the client having very explicit and achievable developmental goals. As a result of the continuous formative assessment strategy in the form of reciprocal peer coaching relationships, the students were able to have a clearer vision for the future.

The conversations had stimulated the clarification of their academic and professional *development goals*. For many level six students, they are facing the end of their degrees and so their attention often turns towards careers and jobs. The reciprocal peer relationships contributed towards the clarification of career goals and career development needs. Much of the independent learning undertaken that was inherent in the reciprocal peer-coaching relationships focused on the goals, actions needed and success criteria attached to personal development planning and so clarity further resulted in students having a clearer focus regarding the direction that their personal development planning might take in relation to career objectives.

Reached my goals in timely manner.

I could focus on achieving short-term goals.

Having the ability to progress my goals was important.

To help with direction to achieve PDP goals.

The process of the RPC relationship was characterised by factors that helped to facilitate the relationship. Students' perceived effective coaching to be related to the level of *commitment* invested in the alliance. For many of the students who reported successful RPC goals achievement, it was apparent that commitment to the process and peer coaching philosophy was vital. The students were frequently challenged to keep the relationships with their clients on track, especially when many of the students in the group lived far apart, had different study loads or were working in employment. The investment of time and relationship flexibility was important for the students, some resorted to skype or phone calls in order to maintain regular contact with their peer learners.

A person who is committed to my development.

You have to give it your time or it doesn't really work.

Further, the ability to use a range of key coaching *communication skills* such as listening, questioning, giving feedback and analytical skills were deemed fundamental to relationship success. Basic communication skills including probing, summarising, paraphrasing and providing client affirmation were also emphasized as being very important to build the relationship.

The ability to embed different *tools and techniques* into the coaching sessions was also considered important for the students in relation to opening up reflective dialogue. Different tools allowed for variety and the engagement of different learning preferences. These techniques involved writing activities, the use of coaching apps or using holistic approaches that engaged the mind and the body (e.g. two chair work). Evidence of this is noted here.

Someone with great at listening.

Someone ready to listen to me and not to judge what I say.

Different techniques that can be used to help me get where I want to be.

Insight into different development tools that help the learning process.

The *strength of the alliance* referred to the extent to which the relationship was built upon trust, empathy, positive regard and genuineness. These conditions refer to the core conditions of Rogers (1957). Rogers commented that if certain conditions existed, the interpersonal relationship and process would bring about greater integration, less internal conflict, more utilisable energy for effective living and changes in behaviour. The quality of the relationship was an important contributor to relationship success, certainly when the partnerships were new, establishing trust at the onset was vital. When there was mutual trust, opportunities for social support were also created. The alliance could only be effective if the overall environment was one of safety and confidentiality.

They need to be open and honest.

Both of us need to be open to questions outside our normal way of thinking.

Elaborate on feelings more, try to be more truthful to myself about how I am feeling.

More listening, trying t listen in more to what is being said by my client.

To use better non-verbal communications.

Several common traits also emerged that described *coach characteristics*. Most students wanted to work with someone who was approachable, friendly and accessible. Friendliness, open-mindedness and honesty were frequently mentioned by the students.

That they are approachable and confident.

Are open-minded and considerate.

The need to be able to build a good relationship with the client.

They are sociable and good conversationalists.

In a number of instances, peer coaches were selected because individuals had previously worked together on different modules or projects and had already established a positive relationship alliance. Previous familiarity assisted the relationship process. .

The learning process

A further theme that emerged from these peer-assisted learning activities was an increase in self-reflection ability. The second conceptual dimension related to the learning process, in other words the extent to which students engaged in the experiential learning process.

This theme included references to the extent which students' maintained reflective learning logs or adopted journaling processes. Journaling, along with other formal relationship documentation provided structure and focus for the students. The formality of having agendas, plans, objective and review forms served to assist the coaching pairs plan and prepare for each session. These reflective writing tasks also supported follow up and review activities. The reflective logs were a useful mechanism for students to track their learning and monitor insights and new insights gained from the RPC relationship.

Students became more aware of their strengths and weaknesses as individuals. They were motivated to learn about themselves and their shortcomings as human beings. Increased familiarity with the RPC process permitted the application of previously learnt concepts to new situations. Through the formative assessment strategy

experiential learning appeared to be taking place at a much deeper level. Certainly the pressure of undertaking coaching sessions under the watchful eye of the tutor encouraged deeper level learning and memory retention. The RPC sessions meant that students had to give immediate feedback to each other, often in the form of video feedback and they also received regular tutor feedback. The students commented how they appreciated this immediate affirmation of their practical work. It helped them to gain an immediate understanding of how they were progressing on the module. Progress was could be viewed as a continuum and increased confidence and ability levels. Developing coaching skills in a real world context helped to cement their work in preparation for professional practice. Using real world clients, and real life problems contextualized the learning, helping students to recognise how this was important for their future professional working life. Students recognised the importance of professionalism and being responsible for the well-being of others.

Time to reflect on me.

More self-awareness of how I behave and act.

Getting to know myself a little better.

Providing opportunity for self-reflection, experiential reflections, looking inside.

Having more time on reflecting.

Cognitive developments

Finally, the third theme resulting from the phenomenological analysis concerned the development of cognitive developments. These outcomes were broken down into three thematic sub dimensions that best describe the overall cognitive developments. The three sub dimensions included *knowledge exchange*, *self-efficacy*, *reflexivity* and *skills*.

By undertaking mutual dialogue with another student regarding development goals and perceived barriers to achieving goals, students were able to heighten their experience of *knowledge exchange*. Evidence of this appears in various comments.

I have a better sense of direction and determination from gaining new knowledge.

We were able to discuss different perspectives and exchange different ideas and thoughts.

I experienced major shifts in my view on.....

Students were able to actively engage in mutual dialogue with another student and develop a heightened knowledge base on a particular real life problem. They could build upon their existing knowledge base which facilitated the development of new ideas, strategies and solutions. This helped the students to overcome barriers to their own problems as well as enhance their coaching competence. Perspective sharing was considered as part of this dimension, as students were able to share and exchange different perspectives on an issue with their peer learner. This further contributed to the reframing and development of new knowledge constructs which only served to strengthen levels of coaching mastery. Mutual problem solving sharing further served to develop the students' knowledge networks. Learning experiences often varied in intensity which in some cases could lead to fundamental shifts in thinking. Formative assessment played an important role in enhancing skill development and served as an incentive to enhance the students' use of time.

RPC helped the students to embrace and develop *self-confidence* and *self-regulatory or efficacy* processes with the peer-assisted learning experience acting as a

catalyst for self—efficacy and confidence building. Insights developed from the RPC process often lead to increases in self-belief and individual ability to carry out specific skills.

Increase self-confidence and social skills.

Confidence with examinations and tests now.

More confident about my actions and studying in University.

Students repeatedly commented on how they were developing a range of skills. They were able to explore the development of these skills through the coaching dialogue. For some this meant utilising time more efficiently or enhancing their ability to manage their stress more effectively. Skills of resilience building were also reported and some students reported increases in their overall leadership abilities. The RPC relationship promoted the transfer of learning and skills beyond the realm of academic life. RPC formative assessment opportunities, motivated the students to learn and helped them to manage their time effectively and prioritise tasks and prompted increased time spent on assessment related tasks.

To be more organised and to improve on time-management skills.

Less stressed and more relaxed.

Stick to dates and deadlines more.

My time-management has improved.

More confident in managing my time.

Increased listening skills.

To summarise, feedback from the module was highly positive, with students demonstrating both academic and personal development. Key findings indicate that the experience of being both coachee and coach in peer-to-peer coaching exercises enabled students to apply psychological principles and to make progress on personal goals. They also reported an improved awareness of the degree to which they could demonstrate key competencies related to employability via the acquisition of coaching psychology skills.

It was an interesting experience.

It has been a helping life learning curve.

A key to providing a new and enjoyable experience.

Discussion

The outcomes of the RPC relationships offers strong support for the use of this formative assessment strategy to support practice and learning within undergraduate business education. The development of coaching competency requires the learners to continually engage in the experiential learning process (Kolb 1984) and develop practical coaching mastery.

The RPC relationships can be viewed as a valuable peer assisted learning methodology that is reliant on self-directed discussions and feedback that promote social interaction, transfer of skills and emotional gains such as reduced student stress (Topping & Ehly 2001 and Topping, 1996).

RPC was supported by psycho social attributes that contributed to the facilitation of the relationship (Ackland, 1991, Zeus & Skiffington, 2006) and appropriate use of

skills and techniques such as non-evaluative communication and feedback leading to gains in performance and learning taking place (Ackland, 1991).

This relationship process was closely aligned to the framework posited by Ladyshevsky and Varey, (2005) and Ladyshevsky (20141) and the Matthewman Phase Function model (2009). Students selected partners and then developed trust, commitment, equality, rapport, feedback giving and goal setting objectives that lead to effective working and finally action planning activities (Liu and Carless 2006). Listening questioning and challenging underpinned these formal yet brief relationships. Such relationship processes allowed students to explore their own learning in a safe, supportive and confidential environment. Making meaning from the real world relationship experience in conjunction with tutor guidance and/or peer collaboration enabled independent student problem solving (Vygotsky 1978).

The RPC relationship supported the development of increased self-awareness and factors linked to the learning process. The learners had to continually engage in the experiential learning process. RPC supported the expansion of cognitive developments (Ladyshevsky and Ryan 2006) regarding knowledge expansion, self-efficacy and skill development by engaging student learners in rich conversations and problem solving situations. Appreciating different perspectives enhanced their own thinking constructs. The development of new thinking and mental concepts indicates that the RPC relationship was an appropriate constructivist methodology (Boud, 1988; Boud & Falchikov 2005; Shepherd 2000; James 2006; Pryor and Crossouard 2008) and situational learning for enhancing formative assessment strategy within undergraduate business education. Professional and personal knowledge integration allowed students

to achieve their development goals through RPC and affirm their own and others learning and achievements. By using the RPC relationship as a formative assessment strategy, students had the opportunity to challenge themselves and learn from their mistakes and successes to build their self-confidence. Self-efficacy and autonomous learning were promoted by the RPC formative assessment strategy.

The RPC relationship outcomes reported in this paper indicated the transformational nature of these dyadic partnerships. The transfer of learning to real life context was clearly indicated with regard to time management, stress management, resilience building and career clarity.

Overall the RPC relationship was a positive experience for students, not only were gains made in learning, their personal skills in coaching mastery improved and developed as a result in this type of formative assessment strategy.

Conclusion

This paper concludes that that RPC as formative assessment strategy illustrates that participants were able to expand their knowledge base and develop increased self-efficacy. Participants were able to exchange knowledge constructs and perspectives to aid the development of new tactical knowledge and skills by evaluating them against the knowledge constructs of their peer coaching partners. Receiving regular dialogic feedback exchange and tutor guidance underpinned the transformational nature of the relationship.

RPC an essential component of the constructivist learning element and appears to be an effective and formative assessment strategy that undergraduate business education that should be considered as part of the curriculum framework. The paper also suggests that formative assessment in this format can promote autonomy in learning and encourage the social aspects of learning that create a safe learning culture where learning can be shared. Providing opportunities where all students can engage in a variety of formative assessment activities is crucial.

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Table 1 Thematic definitions

<p>Process of reciprocal peer coaching</p>	<ul style="list-style-type: none"> □ Development goals: The extent to which students had explicit goals (pdp plans) at the onset of the RPC relationship □ Communication skills: The ability of the coach to employ attentive listening, probing questions and offer constructive feedback □ Techniques and tools: The ability of the coach to use arrange of tools. □ Strength of alliance: The extent to which the relationship was built upon trust, empathy, positive regard an genuineness □ Coach characteristics: Characteristics of openness, approachability and accessibility
<p>Learning process</p>	<ul style="list-style-type: none"> □ Learning loop: The extent to which students engage in the experiential learning process.
<p>Cognitive developments</p>	<ul style="list-style-type: none"> □ Knowledge exchange: new knowledge constructed from the knowledge base of both parties □ Self efficacy and self confidence: The extent to which RPC enhances self- worth, self-regulation, confidence and overall efficacy □ Skills: The development of skills sets such as leadership, resilience and stress management