

15. CONTINUING PROFESSIONAL DEVELOPMENT OF OCCUPATIONAL THERAPISTS: A CASE STUDY OF PROBLEM-BASED LEARNING IN WORK.

Deirdre Connolly
Trinity College, Dublin

INTRODUCTION

This chapter presents a study on the use of Problem-based Learning (PBL) in a working environment. The context in which this occurred was the occupational therapy (OT) department of a large teaching hospital. PBL was introduced by the occupational therapy manager to facilitate changes in staff work practices and to introduce a new learning method to ensure continued professional competencies. At the time of the study, PBL had been used in the department for a one-year period. Interviewing was used to ascertain staff perceptions' on the use of Problem-based Learning in work. The occupational therapists identified changes in their professional practices as a result of PBL and discussed differences between PBL as a method for continuing professional development and other professional development methods.

LEARNING IN WORK

Lave and Wenger (1991), and Engeström (1999) offer differing but complimentary insights into the process of learning through work. They have demonstrated how the process of legitimate peripheral participation in fairly stable and well-defined communities of practice enables individuals to acquire knowledge and skill and develop their understanding through contact with more experienced members of their community. They believe that the transformative practice of a learning community offers an ideal context for developing new understandings because the community sustains change as part of an idea of participation.

In contrast, Engeström (1999) has concentrated on analysing how learning occurs in work situations that are not necessarily stable or well defined. His unit of analysis is the 'activity system' developed from the work of Vygotsky activity theory. Engeström stresses that an activity system must be analysed in relation to its component parts and the different workplace communities or networks of which it is a part. It is this system which must be the focus of change and learning. Engeström argues that increasingly workers are expected to act as 'boundary crossers' between activity systems and to possess the ability to contribute to new knowledge and new forms of social practice.

Engeström (2001) has developed a theory of expansive learning to explain learning activities in work. He explains that knowledge creation in work, unlike educational institutions, is not provided by a competent teacher but is initiated by contradictions between and within activity systems. These contradictions have a central role in bringing about change and development (Engeström, 1999). In this study, Engeström's theory of expansive learning is applied to a learning activity of an occupational therapy department in a large teaching hospital. The activity system under review is the occupational therapy staff and the learning that took place in relation to their professional practice.

Occupational therapy facilitates those who have difficulty in carrying out occupations (activities), due to mental or physical dysfunction, to perform the occupations they need or want

to do in their daily lives. A core professional principle of occupational therapy is to undertake this in a client-centred manner. A contradiction for the activity system of the occupational therapy department is the difficulty they experience in practising the full repertoire of their professional skills while working in a medically driven, acute care, general hospital, where a primary outcome is to treat and discharge clients quickly. It was this contradiction that prompted the manager of the department to introduce the learning activity of Problem-based Learning as an impetus to develop new forms of work activity. Engeström (2001) contends that contradictions are historically accumulating structural tensions within and between activity systems and that such contradictions generate innovative attempts to change the activity.

PROBLEM-BASED LEARNING AND OCCUPATIONAL THERAPY

PBL is well suited to occupational therapy education as it helps to prepare practitioners who can deal with the changes in healthcare and society in the twenty-first century (Tremblay et al, 2001). Sadlo et al. (1994: 50) discuss PBL in an occupational therapy curriculum compared to traditional learning:

Problem-based Learning involves a shift in pedagogical emphasis from lecture to small group based learning. It emphasises an unusual approach to information, where the recall of facts is not as important as an understanding of ideas and principles

In occupational therapy the problems are chosen to stimulate reasoning and enquiry about occupational dysfunction. It has also been noted that the self-directed approach to learning developed through PBL fits well with the client-centred philosophy of occupational therapy practice (Royeen and Salvatori, 1997).

Having researched the claims for PBL, and attended workshops on PBL, the occupational therapy manager in this study introduced PBL as a work-based learning activity. The staff structure of the occupational therapy department is: a manager, eight senior therapists, and twelve basic grade occupational therapists. Senior therapists, at time of appointment, must have a minimum of three years clinical experience. Basic grade therapists are new or recent graduates. This department offers occupational therapy services to a range of clinical areas within the hospital including: elderly care, neurology, general medicine, acute psychiatry and old-age psychiatry. Basic-grade therapists rotate around the various clinical areas for six-month blocks. During this, they are supervised by the senior therapist for the particular area they are assigned.

The PBL process adapted was the Maastricht seven-step model with two tutorials per month. In the first tutorial, staff discussed the scenario, set learning goals and after researching the goals they met two weeks later to share their knowledge related to the learning issues. The scenarios, designed by senior therapists, were based on patients who were currently or had previously attended the hospital. Having implemented PBL and run it over a one-year period the manager wanted to evaluate PBL as a continuing professional development method. The guiding research questions were:

- How do therapists perceive Problem-based Learning as a learning activity that influences work practices within an acute-care general hospital?
- How do the occupational therapists describe their learning processes and strategies in a PBL approach to continuing professional development?
- How does PBL differ from other methods of continuing professional development?

METHODOLOGY

The purpose of this research was to carry out a formative evaluation on the use of Problem-based Learning as a work-based learning activity. Formative evaluations often rely heavily, even primarily, on qualitative methods (Patton, 1990). Within a phenomenological approach a case study methodology was adopted. When used in educational research Patton (1990) contended that the case-study focuses on the process of learning. Its primary focus is the learner experiencing the learning situation.

In this study, there were two stages to data collection. The first involved interviewing the manager about her rationale for using PBL within the department, noting what changes she had observed in work practices as a result of this learning method. The findings from this interview were used to guide a focus group with staff that had attended the PBL tutorials over the one-year period.

RESULTS

Manager's interview

The transcript of the manager's interview was coded and categorised as per Bogden and Biklen (1998).

Three major themes were identified:

- PBL as a method for producing new forms of work activity
- outcomes of the PBL process
- PBL in comparison to other continuing professional development (CPD) methods

PBL as a method for producing new forms of work activity

The manager of this department was very concerned that occupational therapists were losing sight of their true professional philosophy and saw PBL as a way of reminding therapists of the unique contribution they bring to patient care. She commented:

I was hoping that it would allow people to imagine what would happen if we got out of our box and imagine what we could do with our patients – to fantasise about what ideal OT would look like.

She discussed how occupational therapists working in acute care hospitals get very frustrated about their practice saying “they are through-put engineers aiding and abetting a bigger machine”. She was hoping PBL would encourage staff to practice in a different way utilising their full repertoire of professional skills.

Outcomes of PBL process

During the group discussions the manager observed how some therapists were challenged on their views on practice commenting:

I think one of its main strengths was a chance for basic grades to challenge or contemplate another way of treating or being with a patient. I know that some of my therapists would like to be quite black and white and this was an opportunity for a therapist to be subtly challenged about their slightly blinkered view.

The manager also talked about different types of knowledge discussed:

I would say that the basic grades felt quite comfortable talking about theoretical knowledge as distinct from the senior therapists who probably wouldn't think about what theory base they are working from. But probably what the basic grades would have learnt about would be, I suppose, practical knowledge.

With respect to encouraging staff to practice differently she stated she could only report on what she had heard discussed within the tutorials saying:

PBL allowed people to fantasise about what ideal OT would look like. It took the formula out and it allowed people to explore other possibilities of treating patients. The seniors would say 'now that's something I wouldn't have thought of'. One of the rewards of it was that, as people got into it, they were dialoguing at a different level.

PBL versus other CPD methods

When asked how PBL compared to other learning strategies used in work, the manager responded "they tap different things". She favoured PBL because of its flexibility remarking:

With PBL you can turn your lens and shift your emphasis so that you covered a range of topics and cover them in-depth.

She also identified how having basic grade therapists work alongside senior therapists is another valuable method of learning but noted that it has limitations:

the senior will have a finite amount of skills or a finite way of being with a patient. But PBL allows people to explore other possibilities of treating people.

Findings from the focus group

The main themes identified from the data analysis were:

- impact of PBL on professional practice
- PBL as a learning strategy
- PBL in comparison to other continuing professional development (CPD) methods

Impact of PBL on professional practice

As discussed by the manager, this is the area that she was hoping for most change. She wanted PBL to encourage staff to practice differently with their clients. The focus group participants reported changes in their practice. One aspect repeatedly identified was the impetus PBL tutorials gave them to consider the goals of their clients and therefore to practice in a more client-centred approach:

You would definitely think, what are their goals, not what are my goals. You'd say to the person "what is important to you?" It reminded you to say "what are your priorities?" and if they were discharged from hospital you'd try to think of community agencies or resources, and that would have come up in the PBL discussions.

In her interview the manager hoped PBL would be a stimulus for staff to re-establish their commitment to their unique contribution to patient care. One participant identified how the discussions in PBL gave her confidence to do this:

It encouraged me to think about what is the legitimate role of an OT. Rather than taking on the reductionist role of the team, be confident in your role to not get caught up in thinking I must use or do something technical that I mightn't be comfortable with. It gives you the confidence to value your true role with a client.

In discussing other impacts on practice, a senior therapist stated that some basic grade staff had developed confidence in how they interacted with other (non OT) staff. She described it as confidence in their knowledge “general confidence in knowing about a medical condition, to talk about it and question the medical team”.

When questioned on negative aspects or limitations of PBL, one of the participants discussed the impact of the PBL process on her time:

I was conscious that it was taking up clinical time and that maybe I should be seeing Mrs. Smith for her appointment instead of doing this. You see, there was also time in between PBL sessions when you put time aside to prepare.

However, despite this concern she believed that the benefits of PBL outweighed the negative aspects.

PBL as a learning strategy

Basic grade therapists discussed the knowledge they gained from senior therapists:

The seniors would give examples of clients from their own experiences which makes it more relevant than just reading it in a book or journal. They were able to explain it in their own words. That was very useful.

These therapists highlighted the advantages of using a case study as the focus of learning. They reported that it personalised the issues and made the learning more meaningful. They stated they would remember particular cases when practising:

Using a case study helped to bring theory and practice together because it was more realistic. It was a case study related to a real person. I learned a lot from it.

When questioned about types of knowledge discussed in tutorials participants stated:

It was an opportunity for people to remind themselves of the philosophy of OT and to have some discussion around that. Lots of things came up about occupation and activity and client-centredness.

PBL in comparison to other CPD methods

When asked how PBL compared to other CPD methods the participants contended that all learning is valuable and each method has its own merits. However, they spoke very favourably about PBL describing it as “enjoyable, motivating, stimulating, and more interactive than other methods”. There was a belief that the learning achieved through PBL was more relevant to daily practice:

PBL was so good because it is so relevant to what you are doing whereas a course is very specific to certain techniques. PBL was so related to your every day work that it was really good to get you excited about it again. And because it was so relevant to what you were doing, you could use that information straight away. It would really get you more enthusiastic about your work.

Basic grade therapists have regular supervision meetings with their seniors as part of their professional support and development. In discussing the comparisons, they emphasised the opportunity to get to the core of a supervisors clinical reasoning in PBL:

Sometimes when you are working with seniors it's almost as if they are making leaps that you can't make with them. In PBL they explained exactly why they would do a certain thing or highlight things that they would think important and it makes it more explicit.

When asked to compare having a lecture on a specialised topic with PBL, participants reported: “It is much more interactive than having a lecture.” Another participant identified a different issue:

Sometimes when someone gives a lecture you'd like to ask a question but you don't always get the chance. But in PBL you do get the opportunity. Sometimes you think that's a silly question to ask but you would have felt comfortable in PBL because you are with your peers.

Summary

Overall, these therapists spoke positively of their experiences of Problem-based Learning. They described it as stimulating and motivating. The contribution of senior therapists to the learning process was highly valued by basic grade therapists as seniors provided personal clinical experiences unavailable in textbooks. They also viewed it as an opportunity to analyse senior therapists' clinical reasoning processes which are not always transparent in other learning methods. In relation to the impact on work practices, the participants believe that they now practice in a more holistic and client-centred manner. There were, however, some concerns with respect to the time commitment demanded by PBL and how this impacts on clinical time.

DISCUSSION

PBL was introduced by an occupational therapy manager as a method for addressing the tensions between two activity systems of an occupational therapy department and the hospital in which it is based. The primary purpose of introducing PBL was for therapists to realign their practice with the fundamental principles on which the profession is based. Engeström (2001) contends that contradictions within and between activity systems generate innovative attempts to change the activity.

The participants of the focus group discussed how their practice had changed in that they now approached their clients differently. They believed they were now more focused on clients' goals and priorities and therefore practising in a client-centred approach. This in turn made them more confident about the unique role of an occupational therapist in comparison to other health care professions. These therapists, who are boundary crossers between two interconnecting activity systems, experience contradictions between the core values of their profession and the demands of a busy, teaching hospital. PBL gave them an opportunity to re-engage with core professional practices within these existing contradictions. Engeström (2001) believes that change within activity systems is initiated by contradictions.

Confidence was a theme that permeated much of the discussion related to the benefits of PBL. The participants not only identified an externally projected confidence as discussed above, but also identified an increased confidence in relation to their knowledge and how this manifested itself in team meetings. For some new graduates, reporting in team meetings can initially be challenging. Therefore PBL tutorials could be used as a practice arena to prepare staff in managing demanding situations. As identified by one of the participants, the PBL tutorials with peers was a comfortable environment for expressing one's knowledge and professional values.

A concern expressed by one of the participants regarding the impact of PBL on practice was the reduction of clinical time working with clients. This is a legitimate concern for all professions working in a pressurised healthcare system. However, if, as identified by the participants, using PBL helps to focus therapists in addressing only client-identified goals, it could save therapists from treating issues that are not important to the client. This concept of client-driven treatment might initially be difficult for some professionals; however, confidence and support gained through the PBL tutorials could help in adjusting to this approach to practice.

In discussing the comparison between PBL and other forms of continuing professional development, one advantage identified by basic grade therapists was that PBL made senior therapists' thinking processes related to practice more explicit. They identified PBL tutorials as an appropriate forum to question and challenge seniors regarding specific treatment decisions. These group discussions would be different from those between a basic grade and a senior during individual supervision. One of the recognised benefits of PBL is the different perspectives brought to group discussions by various group members (Schmidt, 1993, Connolly and Donovan, 2001). Having multiple views and experiences of group members could have helped these newly graduated therapists to make sense of senior therapists' clinical thinking processes.

Lave and Wenger (1991) describe a similar concept in relation to knowledge creation in communities of practice. Wenger (1998) explains that communities of practice produce tools, symbols, stories etc., that give form to their experiences. This process is known as reification and is considered central to the process of learning in work. The products of reification are not just concrete objects but are also reflections of practices and tokens of human meaning. However, Wenger also cautions against the double edge of reification. He questions whether giving form to the tacit knowledge and practices can reify a concept so that its application becomes automatic. Within a clinical context, the essence of working with patients is that each is considered unique and therefore treatment approaches cannot be based only on routinised clinical procedures and written recommendations. Therapists should be free to practice in an open and intuitive manner that reflects the individual needs of their clients. The question, therefore, is could therapists lose the art of their practice through the process of reification?

Attending professionally related courses is a common approach to maintaining and increasing professional competence (Eraut, 1994). Such courses are often focused on specific aspects of practice. Although the participants stressed the benefits of such courses, they stated that PBL

was more applicable to the broader scope of their practice. As the participants in this study identified that the type of knowledge discussed in the PBL tutorials was related to the core professional philosophy and principles, this then could account for why they concluded that their learning was more usable in the wider context of their interventions with clients. They did not appear to focus on technical knowledge of specific treatment methods for different medical conditions which could have resulted in limited applicability of their learning. The pivotal role of the problem scenario to the type of learning that occurs in PBL has been stressed. Hammel et al (1999) contended that the closer the 'problem' is to a real case, then it is more likely that transfer of learning will occur. Participants supported this by stating that because the cases were based on real patients that had attended the hospital it made them more credible.

CONCLUSION

In this research, Problem-based Learning was being trialed by a manager as a method for changing the work practices of an occupational therapy department. The focus group participants identified areas in which they had made either specific treatment changes or changed how they interacted with their patients. One might conclude, therefore, that PBL is a method for changing work practices. However, there are limitations to consider in this study. PBL was a new approach to learning for these therapists and the changes they reported could be associated with the positive effects of any new method. Another factor to consider in these findings is that the manager was very committed to this approach to learning and therefore could have had a strong influence on her staff's perspectives on PBL.

This chapter presents a case study on the use of Problem-based Learning in work. PBL is widely used in both undergraduate and post-graduate education, but less in continuing professional development in the workplace. This case study presents one model for using PBL in the workplace; however, other work contexts may require different models to suit specific learning outcomes. The application of PBL to continuing professional development (CPD) is a developing area and as such requires research to develop suitable PBL models for work contexts and to identify the impact of PBL on work practices.

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