

A Study on Evaluation of Medical Students Teaching in Clinical Practice

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Abstract

Teaching is both an art and science. It includes both specific methods usage and also inclusion of artistic abilities of the teacher. To create the synergistic effect on the learning and knowledge gaining purpose of students, the author has tried to make use of certain pedagogical principles and a famous philosophy put forth by the researchers and then tries to analyze the effects on the students. Finally, the author tries to make the observation based on the reaction of the students in the classroom teaching with the implementation of the stated concepts.

Keywords

Learning, Reflective Practices, Cognitive Dissonance, Banking Model

I. Introduction

In 2012 I was appointed as specialist trainee in old age psychiatry. As part of my training, my role included teaching final year medical students. I would like to discuss the journey towards seeing the advantages of interactive learning. My initial teaching sessions were mainly didactic which stemmed possibly from the way I was taught as a student. Through critical reflection of my own practice, my teaching has moved towards more interactive learning. This is a patch work text which uses patches of writing produced throughout the module to illustrate the way my ideas about teaching have evolved. I begin by describing a didactic teaching session followed by my reflection of this aided by comments from my colleagues within the group and theoretical knowledge learned during the sessions.

A. Research Problem

Excellence in teaching is achieved through constant self-improvement and timely self introspection of one's performance. In this regard the author who is teaching the medical students is trying to reflect the self-mastery and improvement over one's teaching competencies by the application of various proven theoretical pedagogy methods. The author has tried to depict the journey of teaching the students from didactic way to towards interactive learning.

B. Research Objectives

1. To demonstrate the interactive learning method of teaching
2. To make use of the concept of 'Banking model of teaching' in the class room teaching
3. To narrate the usefulness of Reflective practices in teaching
4. To apply the concept of Facilitate learning to enrich the knowledge
5. To recite the method of Cognitive Dissonance in creating the curiosity among the students.

C. Review of Literature

Freire (1999, p 365) "banking model of teaching" reflects on delivering to the students according to their needs and what was important to them. He has quoted "education becomes an act of depositing in which students are depositories and the teacher is

the depositor".

Schon 1983 (cited by Dennick, 2012 p 621) wrote "encouraging reflection leads to the development of reflective practice which is an important component of professionalism"

Dennick, (2012) Feedback can enable the teacher as a learner to analyse their actions and their development and to plan future learning. Formal mechanisms such as regular appraisal or supervisory meetings or where a portfolio or reflective diary can be discussed and planned is a major component of professional development programmes.

Dewey (cited by Dennick, 2012, p 619) stated that "some of the most powerful learning occurs when students are in a state of uncertainty. This leads to cognitive dissonance and the desire to resolve the conflict and achieve a sense of mental equilibrium"

Polanyi (2009, p10) stated that "we can know more than we can tell". According to him, not only is there knowledge that cannot be adequately articulated by verbal means, but also all knowledge is rooted in tacit knowledge. With tacit knowledge, people are not often aware of the knowledge they possess or how it can be valuable to others.

Wertsch, 1985 cited by Dennick, 2012 put forth a view that students can gain more knowledge by interpersonal and social learning.

Rogers (1983) has talked about 'unconditional positive regard'.

II. Methodology

This is a descriptive research work based on the teaching experience of the author. The target subjects of the research include the medical students who participated in the lecture session on the topic of dementia. The author/researcher initially designed the research by studying the various pedagogical tools and philosophies proposed by the researchers. Based on the listed concepts the researcher analyzed the students' reaction in the class when the concepts such as interactive learning, banking model of teaching, Reflective practices, Cognitive Dissonance were applied in the teaching. Depending on the reaction from the students, the observations were made and relationship between the listed concepts and the reaction from the students is enumerated.

III. Results

A. Banking Model of Teaching

My teaching sessions for medical students were mainly on the topic dementia. I started my sessions with introductions which included discovering what year of medical school they were and how far they were with their exams. Looking at the curriculum gave me a good understanding of their learning needs so that I could deliver what was important to them. Initially in my teaching sessions, I was depending on the curriculum to deposit relevant information about dementia to the students. In one of my teaching session there were four students who were all having their final exams in April 2013. Before the session, I had looked into their curriculum and incorporated topics which would not only be interesting but mainly relevant for their exam needs. It was a difficult balancing act. On one hand I was mindful of their curriculum and things

that need to be taught. But also I needed to balance this with their expectations and make it interesting. One of the ways I dealt with this was by asking the students what they expected out of this session and then trying to adjust my teaching to not only meet their needs but also make it relevant and interesting for them. I now realize using this approach learning needs were not necessarily met as I was depending on the curriculum to deposit relevant information.

The whole session lasted approximately one hour. The setting was relaxed and comfortable. The room was spacious with good light and overall I felt this was good setting for teaching. The students also appeared relaxed, keen and more importantly enthusiastic. They were sat around the table before the start of the session and introductions were done informally. There were some general conversations about student life in general and upcoming final exams. Students appeared to be knowledgeable and keen to learn. Although I thought I made the session interactive and informal, I have to admit one of the students was silent all throughout. Other students were keen to take part in discussions asking questions and generally keen to learn. But there was one student who appeared not to interact with both peers and with myself. Although I was aware of this I could not engage her in any sort of discussion. She hardly made any eye contact with me and all the time she was looking down at the handout without making any notes.

B. Reflective Practices

In my own training reflective practice plays an important role in my progression and development. Reflection is an integral part of my own personal development as a trainee. Reflecting on the session I felt it should have been more interactive. I felt my preparation was good. I had done my readings for the session and also looked at the curriculum. There was no power point presentation but I had prepared hand outs for them. I finished the session about ten minutes earlier and after that there were general discussions about National Health Service. We also discussed their exams and good ways of preparing for them. Students were also keen to know what examiners were looking for in their clinical exams. It bothered me that I could not engage one student and could not think what I could have done differently. On reflection may be she was engaging but not vocal. This could also be her way of learning. Looking back at my own time as student I was mostly silent and preferred to read on my own during my spare time. This got me thinking about future sessions in which I would like to do some paired or small group work which might be an easier forum for less vocal participants. Probably getting a written feedback from the students could have been useful. Having said that I doubt students would feel comfortable making suggestions or criticising the teaching session. Although I completely agree reflection has helped me change and question my own style of teaching, there is one criticism which I would like to mention here. From my experience as a trainee reflective practice helps with individual development. Judging reflective practice limits its use. From my own experience as trainee this leads to reflective works being judged forcing the learner to enter only positive aspects of their learning. In my opinion reflective practice is useful when there is uncertainty or when things have not gone well. In my case there was uncertainty about engaging one of the students which on reflection helped me to look into my own teaching methods. It is also important for the learner to be honest about their reflective work.

C. Learning Facilitation

During my course there was a facilitated session in which we shared photos of different teaching environments. Looking at the photos submitted as a part of course work and peer discussions around them gave me a good insight into different environments used for teaching by the clinicians. Teaching opportunities can arise in a variety of situations, be it ward rounds or operating theatre. When looking at different teaching environments what struck me was how adaptable we as clinicians need to be to the learning needs and to deliver appropriate teaching. As clinicians we are always busy with clinical commitments and our own training needs. Having said this, teaching opportunities arise every day in different forms and we must be ready to recognise this and be able to facilitate learning. In my own practice during multi disciplinary team meetings and handovers team members ask questions are keen to learn. This gives me a good opportunity to facilitate learning. In my view certain amount of 'unplanned' or 'opportunistic' learning can add to the excitement of learning. Looking at other people's comments and reflecting on my own understanding of educational principles one thing that stood out was keeping the language and content of the teaching relevant to the students needs. There may be a lot of things I would want to teach but if they are not relevant or interesting to the students then learning may not take place. So in my opinion it is a challenge for teachers to fine tune the content and make it relevant and interesting according to the students needs.

D. Cognitive Dissonance

A particularly interesting theoretical issue for me is that of 'cognitive dissonance' which was raised by Dennick (2012) when referring to work by Festinger (1957) in his discussion of constructivist theories of learning. Dewey (cited by Dennick, 2012, p 619) stated that "some of the most powerful learning occurs when students are in a state of uncertainty. This leads to cognitive dissonance and the desire to resolve the conflict and achieve a sense of mental equilibrium". Thinking happens when there is tension. This concept is important to me because I now realize I frequently experience this cognitive dissonance when teaching medical students about dementia. Polanyi (2009, p10) stated that "we can know more than we can tell". According to him, not only is there knowledge that cannot be adequately articulated by verbal means, but also all knowledge is rooted in tacit knowledge. With tacit knowledge, people are not often aware of the knowledge they possess or how it can be valuable to others. For example the students knew about dementia, they knew about the different types of dementia and its causes. Students from prior experience had acquired information about dementia and they had formed their own socially constructed understanding of the term dementia. This could have been acquired from prior experiences e.g. having a family member or relative suffering from dementia. Knowledge can also be gained from clinical learning like reading books or medical texts. The students however were not aware of having some of this knowledge. I explored with them the ways to diagnose dementia and treat dementia. This triggered their cognitive process and they were able to discuss the different types of dementia, causes and the treatment options.

Whilst discussing this I introduced the concept of what leads to crises amongst patients suffering from dementia. Students were not clear what actually constitutes a crisis among elderly patients suffering from dementia. They had a preconceived notion that most people were being looked after in a residential care setting and would not cause problems so there would not be any crisis.

This was their existing mental construct which needed modifying. When I challenged this notion it increased their curiosity leading to a healthy discussion. This could lead to cognitive dissonance in students which might encourage them to resolve the conflict by reading and finding out more about dementia.

One of the ways students can gain more knowledge is by interpersonal and social learning (Wertsch, 1985 cited by Dennick, 2012). By means of social interaction learners develop and elaborate their cognitive skills and their knowledge base. Learners can be helped to build across the 'zone of proximal development' where they are helped in achieving a higher level of understanding by mental scaffolding provided by the more knowledgeable other (Dennick, 2012). In my teaching experience I have realised that I can provide the mental scaffolding to medical students. I can build on their existing knowledge of dementia by teaching them about different types of dementia, management of dementia and facilitate further exploration about crisis in patients with dementia which could lead to actual development in the learners. With greater experience learners can broaden their knowledge base and also make links to their existing constructs and try and apply to the specific clinical situation. I am hoping there will also be social learning as the students would have seen patients with dementia in other wards or they would have had a relative suffering from dementia which will enable them to be more confident about diagnosing and treating patients with dementia. By observing these patients and seeing their senior colleagues working with these patients could lead to social learning (Bandura, 1977 cited by Dennick, 2012).

IV. Findings and Suggestions

I have now realized that I incorporate a stage of cognitive dissonance during my day to day clinical discussion with the team members. During the multi disciplinary team meetings I tend to introduce different concepts on managing patients. This leads to discussions amongst the team members as they share and explore different view points, before ultimately deciding as a team the best way to manage the situation. Other approaches I use fit with humanistic theories of learning. Rogers (1983) has talked about 'unconditional positive regard'. I aim to value each member of the group and try to demonstrate this by learning names and listening carefully to different contributions. Unconditional positive regard is a bilateral process and has to be by both teacher and the learner. If one person does not feel that way then it is difficult to have positive regard. For e.g. if a particular member of the team has been disruptive in the meetings then it is difficult to have unconditional positive regard. It is important to recognize such situations and have a frank discussion to explore if there are any difficulties which will help to reflect on our own practice.

Recently I had an interesting supervision session with my trainee doctor. As a part of my training I have to supervise junior doctors. She was presenting a patient seen when she was on call. The whole case was presented to me in a good format. She was not sure about the advice she had given to the patient on management.

What was interesting was the prior knowledge the trainee had which she had not realized. Although I could not recognize this at the beginning of the supervision session, later on when discussing the differential diagnosis and treatment options it became obvious. She did need some prompting and gentle encouragement and with that she was able to recollect the relevant issues. The learning point for me was to explore this at the start. I need to use good questioning techniques at the beginning of the session to make myself aware of the prior knowledge of the learner. In the constructivist approach

it is important to recognize and activate prior knowledge of the learner. I realized some of it was patchy but with prompting and encouragement she was able to get most of it right without me having to challenge the knowledge base. Later on in the discussion we talked about different resources to use especially books. In future she will gain more experiential knowledge. Kolb (cited by Dennick, 2008) has talked about different modes of learning cycles needed for experience to be transformed into knowledge. 'Concrete experience' is often described as the origin of the cycle where immediate experiences are obtained. This is followed by 'reflective observation' where experiences are transformed by reflection into 'abstract conceptualisations', theoretical knowledge or mental models. Finally 'active experimentation' is seen as goal directed activity testing out the consequences of new learning and planning for new experiences. With greater experience learners can broaden their knowledge base and also make links to their existing constructs and try and apply to the specific clinical situation. This knowledge can be strengthened as the trainee progresses in training seeing variety of patients and working in different clinical settings.

During my discussion with the trainee I introduced the differential diagnosis and other management options for the case discussed. This I hope would create some uncertainty and cognitive dissonance (Dewey cited by Dennick, 2012). This challenge would lead to curiosity and further investigation. As a teacher I have pointed her towards where she can get further information to read on management and also some useful websites.

V. Conclusion

The process of critical reflection, aided by discussion with my colleagues and better understanding of theory knowledge has highlighted that my teaching was more didactic than I intended. Now I am more aware of interactive opportunities arising in different setting. By being aware of these opportunities in different clinical setting, I can make use of more active learning rather than it being passive learning. By using aspects of a constructivist model for teaching, I have realized the importance of activating prior knowledge, building on existing knowledge and challenging misconceptions. I have also realized some of the most powerful learning occurs when there is state of uncertainty leading to 'cognitive dissonance' (Dewey cited by Dennick 2012, p619). In my future sessions I need to make my teaching more interactive and include group activity for better learning to happen. My goal in future sessions as a teacher is to provide mental scaffolding to build on 'zone of proximal development' to help learners in achieving higher level of understanding (Vygotsky cited by Dennick 2012, p620).

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