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Scaffolding Students' Learning in EME150 Introduction to Learners and Learning Theory: On Looking Back.

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This is a reflective article on the importance of scaffolding in the EME150 unit taught in collaboration with Deakin University Australia. Being the first unit introduced in the second semester of the first academic year, students were given a lot of support to enhance their understanding and learning since this curriculum was solely developed by Deakin University and introduced for the first time in teachers education curriculum. The scaffolding tools discussed in this article enabled students to a) establish deep learning of the theory, b) engage in collaborative and engaged learning which established good ethical relations between students c) transfer learning by applying theory into practice.

Scaffolding is the process of providing students with some support and structure that will help them work on classroom tasks. It is a way of helping students to perform their best and this kind of support ranges from prompts, pictures, hints, diagrams, graphs, story maps, concept maps to just underlining key words for the students. The literature is clear on the benefits of scaffolding and despite some important criticism; from eminent scholars (Osborne, 1996; Phillips, 1995) the balance of scholarly opinion appears to confirm the central importance of constructivist pedagogy and by inference the centrality of techniques such as scaffolding to deep and embedded learning. The subject EME 150 was designed around a vigorous commitment to scaffolded instruction and deep learning which in large measure was drawn from constructivist theory.

We were very aware of some of the limitations and draw backs in applying constructivist teaching to our unit, and of the problems associated with an uncritical understanding of scaffolded instruction in a cross cultural context. Peter Slezak’s critique of social constructivism points out several of the problems with constructivist approaches to teaching and learning (Slezak, 2000). We were also keenly aware of the criticism mounted by educators such as C.A. Bowers whose critique of constructivism and the...
and the process of scaffolding is not new in the Malaysian context. Nevertheless it is important since for the most part, ‘mainstream teaching and learning processes lacks the substance to produce self-regulated learners’ (Abdul Razak Hussain, 2001; Malaysian Strategic Research Center 1994; Yen et al., 2005). As pointed out above there is significant research on its applicability in the Malaysian educational system (Kaur, 2001).

Scaffolding is a critical and practical technique to enable the success of constructivist learning is widely applied throughout educational institutions globally (Mustapha, 2001). The educational initiatives of the collaboration between Deakin University and the Teacher Education Department drew on this in an effort to establish deep and embedded learning in both students and staff as part of the project.

Scaffolding is very useful in helping students reach their maximum development or their zone of proximal development (Brooks and Ebook Library, 2002; Hammond and Primary English Teaching Association Australia, 2001; Bennett, 1976; Berk and Winsler, 1995; Bruner, 1996; Bruner and Weinreich-Haste, 1987; Vygotsky, Bruner, Rieber, and Robinson, 2004) Thus scaffolding from the point of view of our approach should be provided to all students at all times. Scaffolding is very much evident in the unit EME 150-Introduction to Learners and Learning Theory.

EME 150 was introduced to the PISMP (Program Ijazah Sarjana Muda Pengajaran) students in the second semester of their first year Bachelor of Education programme. It was one of 6 education units offered as part of the 32 units course in collaboration with the Deakin University of Australia. This unit introduces a range of concepts significant within educational psychology and learning theories and it was intended for students to link these theoretical concepts to practices of schooling through their two weeks professional experience.

A unit guide and a reader were provided to all students and staff teaching EME 150. Students were required to read the articles in the reader and do a presentation on the summary of articles read. In addition to this they were required to carry out teaching and
performed by EME 150 students was to do a PMI analysis of the Internet. This group was handling the topic “Implications of Globalization for Knowledge, Education and Learning” found in the reader.

The SQ3R tool encouraged slow and analytical reading and as a result, students were forced to do deep processing of information from the articles. It was used by students to process topic 3 (“How people learn”) in the reader. An example is shown in Appendix 1. Secondly, tools like the 6 Thinking Hats enabled students to reflect on their learning experiences. Using this tool, they were asked to reflect on their 2-weeks school-based experience. Actually, they were performing metacognitive operations, that is, they were trying to understand their own thinking process. They were to reflect their school-based experiences based on the 6 thinking hats. And this activity was carried out with the students actually wearing the 6 coloured hats, reflecting and sharing their school-based experiences. The KWHL tool represents another metacognitive strategy used by the students to reflect on their own learning.

Thirdly, role plays were used by the students to apply theory into practice. For example, students applied learning style and multiple intelligence theories in classroom situations. Students prepared and role played teaching activities that suit the different intelligences and learning styles of the students. They had demonstrated the act of applying theory into classroom situations and thus tried to apply new knowledge to the classroom context. This indicates active and meaningful learning had taken place (Campbell and Dyer, 2006).

**Scaffolding Deep Learning through Peer Collaboration**

Embedding the theory into classroom practice and thus engaging the students in a process of deep learning is critical. Deep learning is largely dependent on the students’ engagement with what is being studied. Deep learning often relies on internal motivation and is shown by a willingness to understand rather than merely pass an assessment task (Martin and Saljo, 1997). Small or peer group learning is also a type of civic
practice of enacting the theory through scaffolded collaboration provided an important conduit for embedding a deep and not merely verbal understanding of the concepts being studied. Therefore the coursework tasks are also tools that promote peer interactions which enable peers to support each other’s learning. This is one important feature of scaffolding instruction.

Part of the assignment given to students required the student to write a reflection on the implications of a certain topic to them as a learner and as a teacher. This reflective question enabled the students to practice their metacognitive strategies and develop an understanding of how the EME150 topics benefited them as learners and as a future teacher. The students could connect what they had learnt from EME 150 to their own experiences as a student and as a future teacher. One student in referring to the implication of behaviorist theories to him as a future teacher, wrote “My strategy would be introducing reinforcing strategies in the form of sweets and chocolates for every correct answer given. This would help to motivate the students to try harder and make an effort to achieve successful results”. In applying Vygotsky’s theory to themselves as learners, another wrote that, “by working and interacting together with friends during group work, I learnt faster as more heads make work lighter, and I can also improve my social skills”.

Scaffolding assessment- Portfolios

Another form of scaffolding found in EME 150 is in the form of the portfolios. Students were required to keep and manage their portfolios. They were to keep their written notes and their presentation materials in their portfolios. They were allowed to bring the portfolios into the examination hall. In this way, it would help to reduce examination jitters as the English language is not their cup of tea. As mentioned in Ellis et al., (2002), scaffolded instruction helps to keep learner stress at a minimum. Therefore referring to their portfolios during the examination helps to relieve some of the examination pressures. The construction of the portfolios was aimed at inculcating a process of deep learning occurred throughout the semester and precluded the tendency for students to see the exam
Conclusion

Scaffolds had indeed played a very useful role in supporting students' learning as most of the students (91%) were in favor of these tools in facilitating their learning. In view of its usefulness in creating active and meaningful learning, these scaffolds/processing tools were incorporated into our local course proforma (Learners and Learning Environment) found in the Semester 2 Bachelor of Education - Primary Education Teaching Programme (Program Perguruan Pendidikan Rendah- Pengajian Empat Tahun) by the Teacher Education Division. Induction workshops for the new course proforma were carried out for the 27 teaching institutions in Malaysia according to 3 zones – (i) northern & eastern zones, (ii) central and southern zones and (iii) in East Malaysia.

The participants were very pleased to find a different approach to the teaching and learning activities for this education unit. Normally students were asked to present chunks and chunks of information without much active involvement of all the other students. So it is change from the norm. The new syllabus was recently implemented, starting June 2007, for the unit “Learners and Learning Environment”. The writers hope to receive feedback regarding the use of these processing tools from all the institutions involved by the end of this year.
Six Thinking Hats Activity

Outline
According to deBono’s Six Thinking Hats, each hat represents the different types of thinking activities (see below). Hats were cut out of different coloured paper for this activity.

Activity
This activity is based on the school based experience (SBE) program. The students will reflect on what they have done in school during SBE and they can tell us about their feelings, suggestions, ideas or even the weaknesses of this program.

Steps:
1. Arrange the students into six groups.
2. The representative from each group will take a number from the lucky draw and will be given a hat according to the numbers drawn.
3. They will discuss among their group members their SBE experiences according to the colour of their hats.
4. When the time is up, the group representative will present their answers according to the colour of the hats they are wearing.

Green Hat – Creativity, new and alternative ideas.
White Hat – Getting facts and information
Red Hat – Emotion, opinion and feelings
Blue Hat – Overall overview, reflection
Yellow Hat – Positive aspects, good points
Black Hat – Criticism, judgment, negative aspects


