

Literature review from reviewing literature



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*An underlying objective of tertiary courses is to enhance student ability to synthesise and conceptualise original thought gleaned from various textbooks. From a student's perspective this is fundamental to assignment success in most courses. Currently the writer teaches a unit in an honour program that considers writing a literature review as a preliminary to a final dissertation. An exercise students undertake as part of the unit is known as "Literature review from reviewing literature". The **purpose** of the exercise is to enhance student's ability to synthesise and conceptualise grounded theory/ empirical data in an appropriate way. At the same time by doing the exercise they learn a practical study point. The individual student **task** is to read a section of a contemporary book that describes a literature review and then, in a small peers group environment, discuss, compare and contrast their colleagues understanding of alternative books that ostensibly cover the same topic. The **outcome** is a negotiated and collectively approved understanding. It will usually take the form of a well-drafted and appropriately referenced paragraph that may form the opening statement of a literature review chapter within a final dissertation. The paper describes the process and will enable the reader to see the simple but effective way that the hands-on activity assists learning in many tangible ways. In summary:*

"I hear and I forget, I see and I remember, I do and I understand" (Confucius).

Key words: Literature review, Problem Based Learning, Peer learning

Introduction

There are many tasks that students need to learn to enable successful conclusion of a dissertation. Kumar (1996: p16) and Hussey (1997) both provided research models of varying complexity that list a series of operational and theoretical steps to guide a researcher. An early activity described by both is the conceptualisation and development of a focussed literature review. The main objective of the unit that is the focus of this paper is producing a literature review that forms a preliminary to an undergraduate honour dissertation.

Amongst other things, the purpose of a literature review is to source existing information and provides a focus for the research topic or problem (Kumar 1996). It is a process of gathering information in a systematic way to guide the researcher in determining the suitability of the topic (Hussey & Hussey 1997; Fellows & Liu 1997; Creswell 1994). Hussey (1997) documents a limited research study where students described a literature review as a research facilitator to learning and a synthesised report describing earlier experiences encountered by a researcher. Whilst it is a relatively simple task to articulate the concept and content of a literature review, a superior outcome is obtained from a "hands on" approach that enhances

critical reading, thinking and analysis in students. In essence “*I hear and I forget, I see and I remember, I do and I understand*” (Confucius).

Context and theory

The writer's approach to teaching follows two learning concepts; problem based learning and peer learning. It is not within the scope of this paper to discuss these issues in full, however a brief insight may prove useful.

Problem Based Learning (PBL) principles are encouraged by McGeorge (1996) in as much as learning should be student centred, flexible and informative. A core idea of PBL uses problems as the focus of student involvement and work. This contrasts with traditional teaching that is teacher-centred where a teacher selects and presents knowledge and develops the learning environment (Woods 1985). PBL effectively starts with a problem that acts as a catalyst for students to acquire knowledge and skills. The aim of PBL is to encourage open-minded, reflective, critical and active learning (Margetson 1997).

Boud, Cohen & Sampson (2001) note that peer learning is a two-way reciprocal learning activity that involves the sharing of knowledge and ideas between students working collaboratively and collectively to evaluate their task. Peer learning allows students to develop skills, maximise opportunities and learn at a proportional higher levels than with traditional learning. It is described as "a way of moving from independent to *interdependent*" (Boud, David, Cohen & Sampson 2001). Accordingly the PBL and peer learning provide a framework for the class exercise that follows.

The class exercise

In recognition of difficulties that students often have in developing a literature review the writer developed an exercise to enable student learning of literature review concepts whilst at the same time enhancing collateral aspects of learning. These additional aspects include (Radloff & De La Harpe 2001; Runeson & Skitmore 1999):

- Critical analyses of theories and an ability to read and write analytically;
- Cognitive strategies including note taking, summarising and identifying ideas;
- Metacognitive aspects akin to the learning process as students undertake the exercise;
- Motivational aspects including expanding levels of confidence as learners and increasing expectations of a quality outcome.

Importantly students begin to grasp associated principles that are required in a successful literature review. These important principles include analysis, synthesis, and conceptualisation of ideas from various books that describe theory. Often a literature review entails the establishment of common issues and similarities of thought arising from different researchers (Naoum 1998; Hussey & Hussey 1997; Kumar 1996). The outcome largely depends on collective clarity of thought, communication and an ability to express knowledge in a logical and sequential manner (Kumar 1996). This is a challenge faced by many, if not all, students. The exercise challenges the student in all these areas but in a way that develops learning rather than confronting and intimidating students. This follows PBL principles where the 'problem trigger' focuses student involvement and consequent learning. PBL starts with a

problem that acts as a catalyst for students to acquire skills supported by learning material and teacher access.

The outline task for the student is to read and subsequently discuss with their peers a selected chapter that discusses literature review. The problem is structured with sequential tasks (Boud, D & Feletti 1997). Individuals in class are given an assignment reference sheet that sets out selected reading (see appendix 1). Students are allocated particular books and encouraged to make appropriate notes as they read. Once they have read their individual selection they commence working in a small group environment. The group, who have read different books, discuss their understanding and compare notes, looking for themes and threads of similarity between authors endeavouring to determine contemporary thinking on the topic (Runeson & Skitmore 1999). They are encouraged to take on leadership roles in their groups, nominating a timekeeper, note taker, adjudicator and reporter, depending on numbers (Boud, David, Cohen & Sampson 2001). Finally the groups all come together as a class and the group reporters set about the final activity that is to negotiate and collectively approve their understanding of book sections reviewed. This conclusion usually takes the form of a well-drafted and appropriately referenced paragraph (see appendix 2 where I have listed several student responses to the exercise). It is often the case that this outcome forms the opening statement of the literature review chapter within their final dissertations.

Outcome

Both PBL and peer learning engage students in deep learning. By using compatible teaching models as an underlying framework the writer is able to move effectively through the several tasks that students will complete in their dissertation. Anecdotal summative student feedback supports their use, as does the insightful content of recent dissertations.

From a student's perspective an associated issue comes to the fore. In a mutually collaborative and trusting environment, supported by the above-described model, students are "stretched", however at the same time formative peer assessment is provided. This is achieved by giving and receiving feedback and comparison with others. These activities in the learning model described provide a powerful influence (Boud, David, Cohen & Sampson 2001).

Post exercise evaluation

There are several risks associated with PBL and the foregoing exercise. The risks include (Kajewski 1996; Kenley 1995):

- Student loss of direction in undertaking the exercise;
- Lack of progress without the usual teacher-student relationship;
- A lack of structure identified by the teacher.

After the exercise an activity to overcome this is participative discussion that enables students to reflect on and make sense of the exercise. A mini 'lecture' is given to exemplify several points that may have been overlooked; this follows PBL and peer learning best practice.

Conclusion

Whilst the paper sets out to review a class exercise designed to develop integrated learning there are several allied principles that warrant additional comment. These may be developed and benefit other areas of teaching. Principally the concept of PBL and its association with

peer learning creates an environment conducive to deep learning in an active way. Recognition of collateral gains afforded through an understanding of cognitive and metacognitive strategies are important to harness in the body of class exercises. Group work and defined leadership roles provide structure to the class and peer assessment builds relationships and develops trust in the class. Overall there are many factors to consider in a class exercise, often it seems as a high-risk venture from an academics perspective - but the benefits are considerable for the student and academic alike.

Endnote

The writer has used similar principles to facilitate other topics associated with writing research reports, for example research methodologies. Many students have undertaken these with equal success. In this case the process reiterates many issues in earlier literature review exercises. An earlier paper explores the use of interactive assignment based learning (Davis 2000). It would be a simple exercise to transpose this example learning exercise into a web based on-line learning environment. Principally aspects of student vulnerability may be overcome in this way. Kelly (2000) suggests that many Australian universities are soliciting income via alternate means. The exercise described in this paper may assist in student assessment associated with some aspects of Australian degree courses provided to fee-paying or distance students.

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Runeson, G. & Skitmore, M. 1999, *Writing Research Reports: A Practical Guide for Students of the Built Environment*, Deakin University Press, Geelong, Vic.

Woods, D. 1985, 'Problem-Based Learning and Problem-Solving', in *Problem-Based Learning in Education for the Professions*, ed. Boud, D., Higher Education Research and Development Society of Australasia, Sydney, pp. 59-66.

Appendix 1

Class exercise reference sheet

Read one of the selected abstracts provided below (start page noted). Draft your understanding of the reading individually in note form and discuss them fully within your groups. As a class provide a short paragraph (5-10 lines), fully referenced that displays your understanding of issues that are associated with a literature review from a new researcher's perspective.

- Hussey, J. & Hussey, R. 1997, *Business Research*, Macmillan Press Ltd., Basingstoke.
Page 86
- Fellows, R. & Liu. A 1997, *Research Methods For Construction*, Blackwell Science.
Page 51
- Naoum, S. G. 1998, *Dissertation research and writing for construction students*, Butterworth-Heinemann, Oxford, UK.
Page 17
- Kumar, R. 1996, *Research Methodology: A Step By Step Guide For Beginners*, Longman.
Page 26

Appendix 2

Student Model Answer 1

The following section/ chapter of this dissertation discusses the literature review.

Naoum (1998) indicates that a literature review will take up between 20 and 25% of the dissertation. The literature review's purpose is to assist in the clarification of the research topic, analyse critically the scope of relevant literature and to broaden the student's knowledge base of the topic (Naoum 1998; Kumar 1996). An outcome the literature review will enable the topic to be understood unambiguously (Fellows & Liu 1997) and leads to new solutions that the researcher will discuss in the conclusions section (Hussey & Hussey 1997).

Student Model Answer 2

The purpose of a literature review is to source existing information and provides a focus for the research topic or problem (Kumar 1996). This exercise will constitute about 20-25% of the content of the dissertation (Naoum 1998). A further purpose is to improve the methodology of the research as a whole Kumar (1996) and to gather information in a systematic way in the very early stages (Hussey & Hussey 1997). The literature review will guide the researcher in determining the suitability of the topic; some amendment may be required if the topic is found not feasible (Hussey & Hussey 1997). It may represent an appraisal of works done at other times (Naoum 1998).

Student Model Answer 3

The literature review is a mechanism to collect information (Fellows & Liu 1997; Creswell 1994). It achieves objective evaluation of the topic (Hussey & Hussey 1997; Fellows & Liu 1997). The literature review is an essential stage in conducting the research project, on average it represents 25% of the dissertation content (Naoum 1998). It increases the researcher's knowledge base (Hussey & Hussey 1997; Kumar 1996).