The purpose of this case study was to explore the issues involved in implementing a technology-enhanced student centered unit in order to provide recommendations to improve and enhance these types of learning activities. Specifically, the study examined problems students encountered in completing the unit activities, problems the teacher encountered in facilitating the delivery of the unit to her students, and strategies to improve and enhance these types of learning activities. Results of this study from SWOT analysis revealed that a variety of factors impact the success or failure of student-centered activities, including student orientation to the unit problem, student collaboration, teacher management strategies, and student accountability mechanisms.

Keywords : student-centered learning, SWOT analysis

Introduction

Student-centered learning (SCL) is where students work in both groups and individually to explore problems and become active knowledge workers rather than passive knowledge recipients. Harmon SW (1996). Student-centred learning describes ways of thinking about learning and teaching that emphasise student responsibility for such activities as planning learning, interacting with teachers and other students, researching, and assessing learning. Cannon, (2000).

Student-centered learning environments are designed to provide students with opportunities to take a more active role in their learning by shifting the responsibilities of organizing, analyzing, and synthesizing content from the teacher to the learner (Means, 1994). These environments allow students to examine complex problems using a wide variety of resources, develop their own strategies for addressing these problems, and present and negotiate solutions to these problems in a collaborative manner (Hannafin, Hill, & Land, 1997).

Although there is growing evidence that student-centered learning activities promote the development of higher-order skills such as critical thinking and problem solving (e.g., Alper, Fendel, Fraser, & Resek, 1996; Barab & Landa, 1997; Gallagher & Stepien, 1996; Savery & Duffy, 1995), there are difficulties associated with supporting student-centered learning. The content and activities used to promote student-centered learning often do not provide enough structure to adequately guide students towards successful completion of classroom activities, thus increasing student disorientation and frustration (Brush, 1998; Hannafin, Land, & Oliver, 1999). Furthermore, in order for students to actively participate in their own learning they must possess self-monitoring and other metacognitive skills which are not necessarily inherent in every individual (Hannafin, Hill, & Land, 1997; Palicsar & Brown, 1984).

Lecturers who are not intimately involved in the design, development, and implementation of student-centered learning activities may either provide too much structure for students or provide no structure at all for students and disengage themselves from the activities (Brush, 1997; Brush & Saye, 1999).

Successful implementation of student-centered learning requires enhancements to the learning environment which teachers and curriculum developers must integrate into existing curricula (Hannafin & Land, 1997; Hawley & Duffy, 1997). These include problem contexts, evaluation mechanisms, and tools or scaffolds to support both student learning and teacher management (Hannafin, Land, & Oliver, 1999; Brush & Saye, 1999). While student-centered learning activities provide opportunities for addressing different types of learning goals, successfully implementing
student-centered learning requires skills and resources which are very different from those required by more traditional, teacher-centered classroom activities.

There is a wealth of literature that details models for implementing student-centered learning activities and provides examples of student-centered activities (e.g., Glasgow, 1997; Hannafin, Hannafin, Land, & Oliver, 1997; Hannafin & Land, 1997; Hawley & Duffy, 1997; Hill & Land, 1997; Land & Hannafin, 1994; McCombs & Whisler, 1997). However, there is little research that evaluates the implementation of student-centered learning and provides data-based guidelines for improving the design and implementation of these types of activities. The purpose of this paper is to present the results of a case study examining the implementation of a technology-enhanced student-centered unit for a high school social studies class.

**Literature Review**

Student-centered learning has been promoted as an alternative to more traditional, teacher-centered instruction for many years. Dewey (1938) advocated the need for providing activities in school which gave students opportunities to test theories and explore issues more critically. Vygotsky (1978) believed that learning was a social process in which learners developed understanding through interaction with the environment around them. He argued that the most effective learning environment would provide learners with the ability to explore concepts which were of interest to them, and discuss and negotiate the meaning of those concepts with other learners.

Further Harmon and Hirumi explained that “…because of new emerging technologies such as networking and rapid access to vast stores of knowledge, the students can become active seekers rather than passive recipients to knowledge”.

There are numerous examples and strategies for implementing student-centered learning, including situated cognition and cognitive apprenticeship (Choi & Hannafin, 1995; Brown, Collins & Duguid, 1989), anchored instruction and macro-contexts (CTGV, 1992, 1993; Young, 1993), problem-based learning (Savery & Duffy, 1995; Scott & Brush, 1998), and open-ended learning environments (Hannafin, Land, & Oliver, 1999; Hannafin & Land, 1997). While each of these examples has unique characteristics, they also identify some general assumptions which must be addressed in order for student-centered learning activities to be successful. These assumptions involve the student, the teacher, and the environment.

<table>
<thead>
<tr>
<th>Teaching Centre Learning</th>
<th>Student Centre Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge transfer from lecturer to learner (student)</td>
<td>Stimulate learner/student to developed knowledge and skills</td>
</tr>
<tr>
<td>Passive student/learner</td>
<td>Active student/learner</td>
</tr>
<tr>
<td>Focused on known knowledge</td>
<td>life long learning</td>
</tr>
<tr>
<td>Lecturer as evaluator</td>
<td>Lecturer as motivator, facilitator and evaluator.</td>
</tr>
<tr>
<td>Separated process in studying and examination</td>
<td>Integrated continuous in studying and examination process</td>
</tr>
<tr>
<td>Studying climate individual and competitive</td>
<td>Studying climate develop to collaborative supportive and cooperative</td>
</tr>
<tr>
<td>Hard-Skill</td>
<td>Hard Skill dan Soft Skill</td>
</tr>
</tbody>
</table>

Often these enhancements take the form of learning aids, or scaffolds, designed to assist students engaged in student-learning activities (Krajcik, Soloway, Blumenfeld, & Marx, 1998; Roehler & Cantlon, 1997; Vygotsky, 1978). Scaffolds are tools, strategies, and guides which support students in attaining a higher level of understanding; one which would be impossible if students worked on their own (Jackson, Stratford, Krajcik, & Soloway, 1995; Linn, 1995). Examples of scaffolds include guides which assist students with focusing on relevant information in a database, summarizing
documents which enable students to gain some insight into an event or process in order to develop a plan for further exploration, models or rubrics which help students determine the requirements of an activity and assess their success in completing the activity, or teacher conferences and progress reports to help students evaluate their progress.

Method

The purpose of this study was to explore the issues involved in implementing a student-centered unit in a typical exact and non exact studies using SWOT analysis in Faculty of Business and Management – Widyatama University.

1. Classroom observations. Throughout the unit, each of the classes was observed lecturer and students during class time including their impressions of teacher interactions with students, student behaviors, and perceptions regarding the progress students were making in completing the unit.
2. Student interviews. Using a strategy that emphasized diversity in gender, race, ethnicity, and ability, five students from the class were selected for post-unit interviews. Student interviews explored respondents’ perceptions of the technology-supported unit and its effects on their learning. The interviews were semi-structured and asked several common questions, including “What aspect of the unit did you like best/least?”; “Do you prefer to learn in a way that is more teacher-directed or student-centered?”; and “Compared to other History units, how was this unit different?” Each interview was audiotaped and lasted approximately 45 minutes.
3. Lecturer interview. The lecturer also participated in a post-unit semi-structured interview. The interview sought her perceptions about the strengths and weaknesses of the unit and any effects that the changes had on student learning and the classroom environment. As with the student interviews, the lecturer interview lasted approximately 45 minutes.

Results

Strength
1. Many lecturer believe there is a need for technology in the classrooms and have a desire to grow in their technology usage.
2. Classrooms are all outfitted with complete tools, however usage is traditionally for lower leveling thinking (knowledge and comprehension).
3. Lecturers are proficient in using technology for communication, administrative, and management purposes.
4. Lecturers tend to share new learning with other teachers (when they learn something new, they tend to share the information.)
5. Technology support occurs within the campus, lecturers do not have to travel to a different location for support or repairs.

Weakness
1. Lecturers, generally speaking, don’t have a vision for how to implement high-impact, student centered learning experiences.
2. Lecturers, don’t know how to implement student-centered learning with technology.
3. Lecturers, lack proficiency in creating and utilizing resources that engage students in the technology usage and capture the interactive component of technology.
4. Very few parents are aware of the technology standards
5. Blogs, which were initially slated to begin this year, have rarely, if ever been set-up.

Opportunity
1. Presentation software, (PowerPoint) is used by many staff members for standards-based presentations.
2. There is a district-wide technology plan
3. Lecturers access to locate and utilize curriculum-based flipcharts.
4. Generally, there is at least an initial training on new devices or software prior to integration.
5. Submitting a work order is relatively quick and easy, available through phone or e-mail.
Threat
1. Lecturers lack confidence in using the resources available, even when they have an understanding in how they work.
2. While lecturer use of technology occurs daily, student use of technology is very limited.
3. When students do have the opportunity to utilize technology, it is typically for productivity purposes, or viewing websites.
4. Access to personal computers and internet are limited in the homes of our students.
5. Language barriers prevent many of students and families from accessing information online.

Conclusion

The knowledge gained from implementing and evaluating this unit should help developers create effective student-centered activities, and by providing lecturers and students with the support they need to be successful within these environments.

These research giving a lot of information that by implement student-centered learning it is develop students to do more creativeness, giving stimulus being fast thinking and adapt with the technology in use. Also to the lecturers giving same impact and create soft skills.

Student-centered learning in this faculty giving very good result in non exact discipline because being supportive media for teaching and learning in classroom so students excited for studying and discuss with lecturer instead in exact discipline there are some threat that process transfer knowledge will not smooth specially for calculating part or graphic session and all kind of it.

Overall it can be conclusion that by student-centered learning students got motivated and excited to learn more and find more about everything.

References


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