Heather A. Bickley

EDTL 7100: Curriculum Design Project 2010

**Evaluation Strategy**

It is imperative that students learn science by doing science through hands-on investigations of key concepts in the science curriculum. By completing lab investigations students should gain a deeper understanding of the science objectives they are to master then not doing hands-on activities. With any new implementation of a curriculum design it is essential to assess the effectiveness of the implementation of the design . Formative and summative assessments should both be used to determine the effectiveness of the curriculum.

Formative evaluation is showing a work in progress and is done throughout the implementation of the curriculum design. Formative assessments start at the beginning of implementation but continue throughout a three to five year process. Teachers could give pre assessments and post assessments at the beginning and end of a subunit. This would determine students understanding of the unit before it was taught and how their understanding changed by the end of a unit. In addition, teachers and/or administrators could conduct survey’s or interview students to gain perspective of their understanding of concepts as they are taught to see if the hands-on activities are increasing knowledge and recall of the material. Teachers and/or administrators could also observe students while they complete a lab and see how their understanding of the concepts changes from previous thoughts that students had. Feedback from the observations, surveys and interviews could be given to the design coordinators to make changes as necessary. Students could also compile portfolios of their lab experiences and reflect on the knowledge they gained from each experience. This shows how their knowledge about particular topics changes over time. The portfolio also exemplifies a deeper level of understanding of objectives. Teachers could also participate in professional development sessions to learn new ways to incorporate meaningful hands-on activities into their classes.

Summative evaluation shows whether the design is better than before as a whole. There needs to be a baseline to study the effects of the curriculum design. Teacher’s could view previous test scores and end of grade test scores of past students who were not taught under the new design to test scores and end of grade test scores of current students who were taught using the new design. This might show how the improved curriculum increased student’s knowledge of concepts and their ability to demonstrate their knowledge on assessments.