Study Abroad Program as an Experiential, Capstone Course: a Proposed Model

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Introduction/Theoretical Framework

Educational reform in the United States is a constant, on-going process. New ideas and models are constantly espoused which are intended to dramatically improve education. One of these “new” ideas involves experiential learning. The ability to involve one’s self in specific experiences, to reflect and conceptualize these experiences, and then to take an active role in experimenting and building upon them, is the foundation of experiential learning (Joplin, 1981; Kolb, 1984).

Experiential learning, as well as problem-solving and decision-making abilities, has continually been touted as an essential element in the education process (SCANS Report for America 2000, 1991). The basic theme among all experiential learning models is that learning through applicable experiences, with requisite reflection and synthesis, provides for the best education (Kolb, 1984; Joplin, 1981). And, it is this experiential learning model which provides the backbone for a capstone course. The course provides a culminating experience, which needs to be carefully monitored so students achieve their stated objectives (Knowles & Hoefler, 1995; Aupperle & Sarhan, 1995).

Experiential learning, which has been shown to be an integral part of capstone programs (Andreasen, 1998), is equally integral to study abroad programs. Empire State College, for example, had incorporated the experiential and capstone concepts into their Principles of International Business Course. Students, who were provided the opportunity to participate in a study abroad program, could learn crucial international business concepts, skills, and other related learning which were being unmet in the students’ other courses (Herdendorf, 1991).

Purpose and Objectives

The purpose of this study was to develop a model for incorporating experiential learning into capstone courses and a rationale for the inclusion of study abroad programs into this course description. Specific objectives were:

1. Identify and define components of a capstone course.
2. Define study abroad programs as capstone.
3. Develop a model for incorporating experiential learning into capstone courses.

Methods/Procedures

This study employed a historical research methodology. This method is a systematic collection and evaluation of data to describe, explain, and thereby understand actions/events that occurred in the past (Fraenkel & Wallen, 1993).
Findings

Objective 1: Identify and define components of a capstone course.

In 1985, the Association of American Colleges (AAC) published its report entitled Integrity in the College Curriculum: A Report to the Academic Community. This report addressed concerns about the decay in the quality of the Nation’s Colleges and Universities. The findings support a minimum required curriculum which should include the following items: inquiry, literacy, understanding numerical data, historical consciousness, science, values, art, international and multi cultural experiences, and, study in depth. The study in depth area noted the following: a central core of theory and method, a range of topics, a sequence with advancing sophistication, and a means by which final mastery of a discipline’s complexity can be shown and assessed (Wagenaar, 1993). This description forms the basis of what is a capstone course.

In a recent study of capstone courses by Crunkilton, Cepica, and Fluker (1997), the authors offer the following definition of a capstone course: “A planned learning experience requiring students to synthesize previously learned subject matter content and to integrate new information into their knowledge base for solving simulated or real world problems.” Crunkilton et al. (1997) go on to state that a capstone course should “...ease the transition of students between their academic experiences and entry into a career or further study.” The course provides a culminating experience that needs to be carefully monitored so that students achieve their stated objectives (Knowles & Hoefler, 1995; Aupperle & Sarhan, 1995).

Six educational outcomes and five required learning activities were identified by Crunkilton et al. (1997). The expected educational outcomes of a capstone course include: problem solving; decision making; critical thinking; collaborative/professional relationships; oral communications; and written communications. Required learning activities include: projects, case studies, or written analyses, small group work, oral communication, intensive writing, and industry involvement. These outcomes and activities have been reiterated throughout the literature involving capstone courses (Zimmerman, 1991; Wagenaar, 1993; Aupperle & Sarhan, 1995; Crunkilton et al., 1997; Zimmerman, 1997).

Objective 2: Define study abroad programs as capstone.

In order for a study abroad program to be considered a capstone course or program it must be held up to the “light” of the characteristics of such programs or courses. Wagenaar (1993) makes the following comments with regards to the competencies required in a capstone course:

The capstone course revisits these basics; it asks students to interconnect them, to assess which aspects really are the most basic, to compare the basic questions...with the basic questions from other disciplines, to determine how their exposure...contributed to their liberal education and to their critical thinking capacities, to state how their exposure...has affected their values and their views of life, to explicitly link knowledge gained from one course with that gained in another, and to participate competently in a discussion of the basic arguments in the field. (p.211)

In a 1990 study published by the European Cultural Foundation, several academic effects of study abroad programs are listed. Among these were: tackling abstract problems, working with theories, articulating thoughts/views, cooperating with others, motivating other people, planning and following through, developing comparative perspectives (Opper, Teichler, and Carlson, 1990).

Experiential learning, which has been shown to be an integral part of capstone programs (Andreasen, 1998), is equally integral to study abroad programs. Mortensen (1978) states that...
experiential learning is conceptually linked to a great variety of activities that take place outside of the traditional classroom chiefly, internships, independent study projects and study-abroad programs. Empire State College incorporated the experiential and capstone concepts into their Principles of International Business Course. Students were provided the opportunity to participate in a study abroad program so that their students could learn crucial international business concepts, skills, and other related learning which were being unmet in the students other courses (Herdendorf, 1991). These related learning activities involved intense student-professor contact, student-student interactions, written and oral communications, and stimulating educational experiences.

Objective 3: Develop a model for incorporating experiential learning into capstone courses.

Based on the review of literature and researcher observations, a model for integrating experiential learning processes into capstone courses was developed (Andreasen, 1998). This model (MIELCC) (figure 6) draws upon the research and observations of educators in diverse fields of expertise but is oriented toward capstone courses in Colleges of Agriculture, although the benefits and applications of experiential learning and capstone course are universal.

Crunkilton et al. (1997) stated that one of the principal values of capstone course is to unify the fragmented disciplinary knowledge associated with the educative process. This model begins with this principle in mind. Crunkilton et al. further suggested five essential learning activities based upon their nation-wide analysis of capstone courses in Colleges of Agriculture. These activities are: problem solving, team work, decision-making, critical thinking, and oral and written communication.

The learning activities and instructional techniques included in the model’s required capstone components, (MIELCC) (figure 6), are also the activities and techniques rated by students as being of exceptional quality and the most beneficial to them professionally (Andreasen, 1998). These learning activities and instructional techniques facilitate the experiential process within the capstone course.

David Kolb (1984), in his book *Experiential Learning: Experience as the Source of Learning and Development*, summarizes seven themes which provide the theoretical framework for experiential learning. Kolb draws upon the works of Kurt Lewin, John Dewey, and Jean Piaget in forming guiding principles of experiential learning theory (Figure 1). Lewin’s work with T-groups and action research articulate with John Dewey’s work concerning the democratic values guiding experiential learning as well as the view of experiential learning as a life-long process. These views work in concert with Piaget’s contributions of the learning process as dialectic between assimilating experience into concepts and accommodating concepts to experience. Dewey’s unique works with pragmatism as well as Piaget’s epistemology round out the themes for the principles of experiential theory.

Currently there are many models of experiential learning. Most of these models are very similar. However, they all can be directly related to the traditional theories of Lewin, Dewey, and Piaget. The Lewinian model, a four-stage cycle, flows from a concrete experience through observation and reflections to the formation of abstract concepts and generalizations which can then be synthesized into new individualized theories and tested for applicability and then formulated into new concrete experiences and the cycle repeated. The Piaget model builds onto the concepts presented by Kurt Lewin. Lewin believed that the learning process was a cyclical interaction between the individual learner and his/her environment. Lewin proposed that the key to learning lies in the interaction between accommodating and assimilating experiences into higher levels of cognitive functioning.
The model proposed by David Kolb (1984) builds upon the works of Lewin, Dewey, and Piaget (Figure 2). This model depicts learning as a series of transitions among four adaptive modes: concrete experience, reflective observation, abstract conceptualization, and active experimentation. The four quadrants of Kolb’s model deal with the processes whereby knowledge is transformed through experience. Kolb explains that knowledge results from “the combination of grasping experience and transforming it” (p. 41). The knowledge, then, is transformed either through intention or extension and grasped either by comprehension or apprehension. In concrete experience, new content is introduced through new experiences.

In reflective observation, the content is presented through a variety of methodologies. The learner then contemplates and reflects upon them before moving to the abstract conceptualization mode. In this mode the learner creates concepts and forms them into generalizations. These concepts and generalizations are then used to make decisions, solve problems, and applications in the active experimentation mode.
Laura Joplin (1981) developed a five-stage model (Figure 3) which directs the experiential learning cycle. The Joplin model is also a cyclical one with definite starting and ending points. The cycle begins with a focus stage where the educational objective is explained, but not too specifically. Next the learner is placed in a stressful situation where the problem must be addressed. This is the challenging action stage. Support and feedback stages occur for the duration of the process, which provide security and information to the student about what they have been doing. And a debriefing stage, the last stage, follows which allows for the sorting and ordering of information that may, in turn, lead to the next five-stage cycle.

Yet another popular model of experiential learning is found in the U.S. Department of Agriculture’s Cooperative State, Research, Education and Extension Service 4-H Program (Figure 5). This model is an adaptation of the Pfeiffer and Jones (1977) model (Figure 4) which is also cyclical in nature and begins with the experiencing of a concrete activity and cycles through the subsequent steps of the model. The learner becomes involved in an activity with this initial experience forming the basis for the entire process. The next phase is publishing. This refers to the learner sharing or “publishing” the observations with others that have experienced the same activity. This phase is followed by processing. After the observations are shared and integrated, then they are processed or reflected upon. Next, the generalizing phase is utilized to define, clarify, and elaborate on the learner’s experiences. The final step is applying the results of the experience in a novel setting or to a situation. The application of this new experience in itself begins the cycle anew.
Figure 3. The Joplin model of experiential learning (Joplin, 1981)

Figure 4. Pfeiffer and Jones model of experiential learning (1977)
Figure 5. The Experiential learning model used by the CSREES (1994)

The Cooperative State, Research, Education and Extension Service 4-H Program combines many of the aspects of the Pfeiffer and Jones (1977) model which built upon the works of Tannenbaum and Schmidt (1973). The central triangle in this model is a truncated version of Kurt Lewin’s model, while the outer circle contains basically the same elements as the Pfeiffer and Jones model, except that publishing is renamed sharing. This model, as well as Kolb’s model, provides the theoretical framework for many of the CSREES publications (Horton & Huthinson, 1997; CSREES, 1992).

The model then flows into a synthesis of several experiential learning models (Kolb, 1984, Joplin, 1981, Pfeiffer & Jones, 1977) presented in the review of literature. The interpretation these models and there incorporation into the capstone course concept are the product of this study and the synthesis of literature. The five “R’s” of the model (receive, relate, reflect, refine, and reconstruct) are a mnemonic device to represent the major areas of the experiential learning model (Figure 6). They are designed to spiral and funnel the required capstone components into an integration of the subject matter content so that they may become applicable and synthesized by the learner.

Receive: An activity or experienced is received by the learner. This activity or experience may be contrived by the facilitator or may occur spontaneously during the capstone course or may have occurred during previous courses. This step corresponds with previously cited models, many of them using the term “concrete experience” (Lewin, Piaget, Kolb, & CSREES).

Relate: Relating learned experiences to previously gained knowledge ties experiential learning into the capstone course philosophy. Taking fragmented disciplinary knowledge and unifying it is the intent of this step. This step may be referred to as “focus,” “internalized
Integration of Experiential Learning into Capstone Courses

Fragmented Disciplinary Knowledge

Required Capstone Components

Team Work  Problem Solving  Decision-Making  Critical Thinking  Communication

Receive  Relate  Reflect  Refine  Reconstruct

Integration and Synthesis of Subject Matter Content

Student Feedback  Facilitator Feedback

Figure 6. Model for the Integration of Experiential Learning into Capstone Courses (MIELCC)

reflection,” reflective observation,” “share,” or “processing” in other models and is associated with reflect.

Reflect: Laura Joplin stated, “True experiential education is characterized by systematic interventions of the learning facilitator with the learner along an experiential path” (Joplin, 1981, p. 156). It is the reflecting upon the experiences received and relating them that distinguishes experiential learning from learning through experiences.

Refine: Once knowledge has been related to and reflected on it must be refined. This refinement process causes further contemplation concerning the applicability of this knowledge and its association to and with other knowledge. This may be associated with “abstract conceptualization” and “generalize” from other experiential leaning models.

Reconstruct: As the vortex of the spiral is reached, experiential learning reconstructs or allows for the synthesis of the subject matter content and its integration into our knowledge base. The Lewinian model calls this step “testing the implications of concepts in new situations” and the CSREES models refers to reconstruct as “apply what was learned to a similar or different situation or practice.” Once synthesis and integration have resulted, the spiral of the five R’s can be reused and additional knowledge processed and feedback provided and evaluations made to improve and develop the initial process.

Conclusions/Recommendations /Implications

There is a very real need to relate the concepts of capstone courses and experiential learning. Without this relationship the possibility exists of lessening the educational advantage students have by participating in capstone courses. Without an understanding of the experiential learning process, the surface of knowledge and learning are only scratched. The results of this study show that when learning activities and instructional techniques based upon the principles of experiential learning are applied in the capstone setting, the quality and benefits within these courses are improved.
Utilization of the Model for Integration of Experiential Learning into Capstone Courses (MIELCC) provides an actualization of the relationship between and among these educational principles. The Model provides one method of viewing these principles and incorporating them into a more holistic approach to education. Following the experiential learning process depicted in the five R’s allows for improvements in education by improving the application and conceptualization of knowledge.


References


