CONCEPTUALIZING CO-CREATIVE STRATEGIES IN EXPERIENTIAL EDUCATION: INDIVIDUAL VERSUS GROUP APPROACHES

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ABSTRACT

The Association for Business Simulation and Experiential Learning (ABSEL) literature contains a number of studies that address the nature and effectiveness of various types of experiential learning exercises. This paper suggests that characterizing any particular type of exercise as "experiential" or "not experiential" is less productive than determining the best way to create an experiential learning environment, within the context of a particular type of exercise. We argue that effective education is necessarily "co-creative," where students actively respond to and interact with the learning environment to create a learning experience. This experience takes place in the students' minds. Defining experiential learning as a mental activity is important, because it focuses our attention directly on the principles of design by which we stimulate mental activity, rather than imprecise classifications of teaching approaches, such as "experiential" versus "didactic." We discuss two sets of principles: those related to student work products, and those related to the role of individual versus group learning environments.

INTRODUCTION

Education is the process of transferring knowledge across individuals in society. In a paper presented at the 2015 Association for Business Simulation and Experiential Learning (ABSEL) conference, Geddes and his colleagues argued that education can be framed as a marketing problem, the allocation and management of resources to address people's learning needs and desires (Geddes, Cannon, Cannon, & Feinstein, 2015). In contrast, much of the literature has framed education as the study of how one acquires knowledge, focusing on epistemological framing of what constitutes truth (Meyer & Land). In this paper, we build on Geddes et al. (2015) work by elaborating on the process of education as a type of service. Per economic theory, we argue that knowledge is a scarce and costly resource that allows people to meet their needs and desires, and that education is a medium for transferring knowledge. Marketing provides a framework that addresses the process of allocating resources to meet students' (customers') knowledge needs and desires.

While the philosophical roots of marketing and education are important to our understanding of the larger landscape of academic inquiry, the more immediate payoff of the comparison lies in what a marketing perspective might contribute to educational effectiveness. Geddes et al. (2015) draw on service-dominant logic (SDL), a marketing concept introduced by Vargo & Lusch in 2004, and followed up by a number of expansions and revisions (Lusch & Vargo, 2006; Lusch, Vargo, & O'Brien, 2007; Vargo & Lusch, 2014), to argue that a marketing perspective can improve the educational process. The basic premise of SDL is that the concept of products and services can be misleading. Customers buy resources that take the form of what we have come to think of as products and services, the value of which is realized in the process of consumption, not as a result of the product or service itself. To illustrate, a product such as a smart phone, or a service such as a plane flight, provides no value to a customer until the customer uses it.[1] Furthermore, a customer that knows how to use a smart phone's features effectively or understands the air transportation process will generally get more value from the phone or plane flight than a customer who does not know or understand. We conclude that the concept of a product or service's value implies some kind of customer participation. In other words, the value of products or services is "co-created" by customers.

To explain the process of customer co-creation of value, Vargo and Lusch eschew the notion of products and services, arguing that these are merely prepackaged bundles of resources. The more appropriate term for a marketer's offering is service, the nature of which consists of resources that are strategically bundled to facilitate customer co-creation of value. These resources come in two varieties: *operant* and *operand*, operant resources offered by the supplier - which yield value to the customer when combined with operand resources that facilitate the co-creative process.

[1] The term "use" in this sentence can refer to the customers' cognitive, emotive, or even subconscious utilization of purchased resources. For example, a stamp collection might be a source of intrinsic joy through its symbolic value. Or the purchase of financial assets (or the elimination of debt instruments) without any intention of using them for future consumption might provide emotive benefits to a customer.

Operant resources are packaged in well-known forms, the use of which is well understood and relatively uniform across customers. For instance, a toothbrush and toothpaste are operant resources that facilitate the customer's ability to brush (a contribution of operand resources) his or her teeth. Of course, even in this simple example, the interaction between the marketer's operant and the consumer's operand resources will vary, as will the type and amount of co-created benefit. Everybody brushes their teeth slightly differently, and the benefits they seek and receive may vary dramatically from individual to individual.

In the case of education, the service operant resources and the operand resources used in the co-creative process can be very complicated. Courses that involve many diverse operant resources such as lectures and/or out-of-class and classroom exercises can have a vast range of potential educational outcomes given the potential diversity coming from the co-created benefits students/customers derive by applying (or withholding) their operand resources. Furthermore, teachers and administrators may apply their operant resources (such as emotional energy and attitude) in a variety of ways that influence the educational system. Finally, students may also have a variety of operand resources such as personal computers that they bring to the co-creative process.

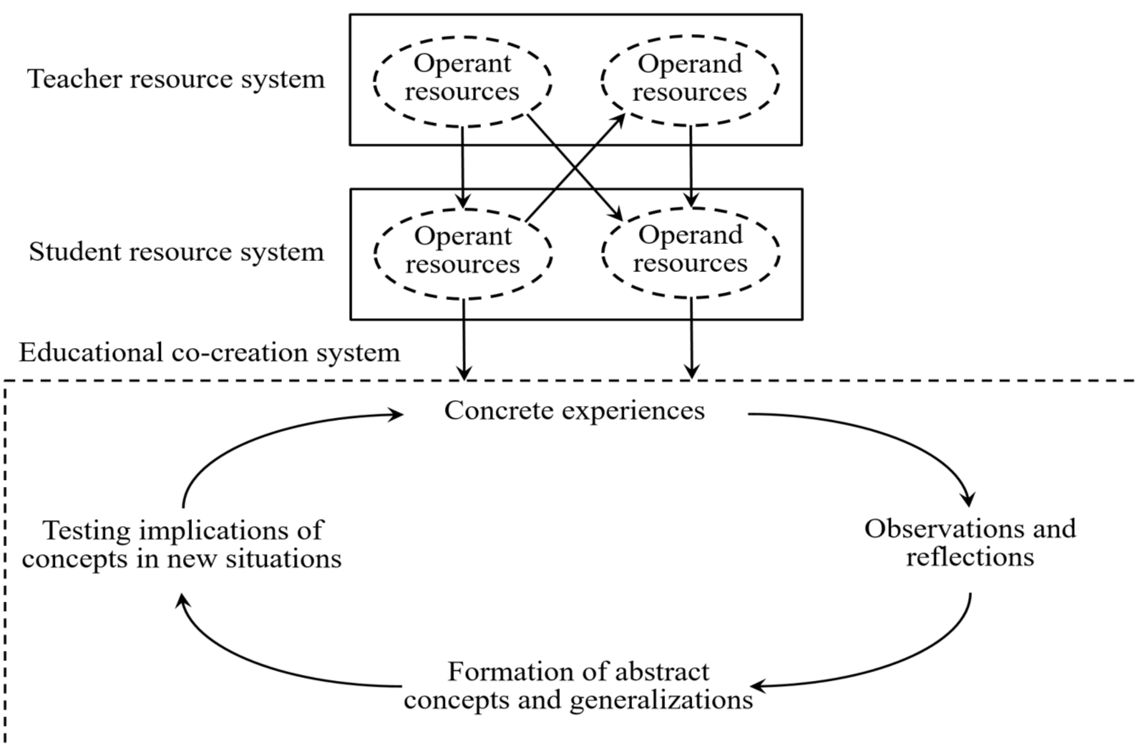
Our objective in this paper will be to develop and explore a framework for conceptualizing different types of co-created educational experiences, from the perspective of experiential learning. Our framework should facilitate the design of educational services that are most likely to address different educational needs and desires. The application of SDL should both clarify the various dimensions by which an educational service might vary and provide recommendations for the general types of resources needed within the various dimensions.

CONCEPTUALIZING EDUCATIONAL CO-CREATION

We have already noted our position that all effective education is inherently "experiential" and that the experience is derived from the co-creative process in which students engage. While most educators will no doubt agree with the assertion that student co-creative effort is essential to effective education, equating student co-creative effort and experiential learning merits further discussion. We argue that experiential learning is not adequately captured in the oft-proposed distinction between "didactic" and "experiential" activities, a position that puts us somewhat at odds with traditional views of experiential learning. For instance, Gentry and Schibrowsky (1990) cite the definition provided by the AACSB Task Force (1986, p. 3), asserting that experiential learning is "A business curriculum-related endeavor which is interactive (other than between teacher and pupil) and is characterized by variability and uncertainty." While we agree with the basic definition, we would argue that experiential learning can, and, in fact, often does involve an interaction between a teacher and pupil.

Most definitions of a didactic teacher involve a teacher leading a student to a predetermined conclusion, thus leaving no room for variability and uncertainty, whereas grappling with variability and uncertainty is central to experiential learning, as suggested by the AACSB definition. However, many studies spanning over fifty years have supported the inadequacy of the didactic/experiential distinction (e.g., Berenson, Carkhuff, & Myrus, 1966; Davis & Leslie, 2015; Payne, Weiss, & Kapp, 1972). As we noted earlier, we propose that the inability to adequately distinguish between experiential and non-experiential learning may be because all effective education is necessarily experiential due to the co-creative nature of the

EXHIBIT 1
THE CO-CREATIVE EDUCATIONAL MODEL



educational process.

Exhibit 1 captures the underlying logic. The exhibit portrays Kolb's (1984) learning cycle, which, in turn, is derived from Lewin's (1946) concept of action research. The cycle portrays learning as an active process in which students observe, develop theories to explain what they observe, test the implications in new situations, experience the results of their tests, and then continue the cycle. Any mental input from which learning might be derived consists of stimuli that are meaningless until compared with stored mental patterns, decoded, and tested against other stored information to determine reasonableness and accuracy. These processes follow the experiential learning cycle portrayed in the bottom portion of Exhibit 1. More complex ideas tend to require more sophisticated testing, often with the aid of overt and often complex behavioral experiments. But even the simplest of ideas, regardless of whether they evoke an overt response, rely on the learning cycle. Furthermore, even the most complex types of learning, whether involving sophisticated patterns of overt behavior or merely intense patterns of thought, are ultimately a mental exercise. In other words, not only is all learning experiential, but it ultimately takes place in the student's mind, not in his or her behavior (Cannon, Geddes, & Feinstein, 2014; Geddes et al., 2015; Young, 2002).

If effective learning involves a co-creative process that is inherently experiential and ultimately takes place in the student's mind, why do we spend so much time talking about the benefits of experiential learning settings? We believe the answer can be illustrated by Exhibit 1. We define experiential learning in terms of the cycle portrayed in the exhibit as the "educational co-creation system". The degree of co-creative effort invested in each of the learning cycle stages (experiencing, reflecting, conceptualizing, and testing) determines the degree to which the learning experience is experiential. While co-creative effort can result from any kind of teaching approach, many conventional teaching approaches – lectures, for instance – tend to elicit less co-creation (Beck, Appiah, Gunti, Bumgardner, & Tang, 2016). Rather, some conventional approaches reward students for storing information in their memory, and reporting that information back on tests. However, it is important to note that the effectiveness of learning is not inherent in the teaching approach, but is a function of students' response to educational systems by engaging in co-creation of learning.

Our argument may appear to be a reductionist view of experiential learning, suggesting that, excepting co-creation, there is no effective approach to education. Further, experiential learning is embodied by co-creation. Thus, experiential learning is broadly defined as the co-creation of learning, the only effective educational approach. Alternatively, one might characterize our approach as active learning, while defining experiential learning as learning that is anchored in concrete versus abstract experience (Morris, Kuratko, Schindehutte, & Spivack, 2012). Some experiences, such as writing memos, leading discussions, conducting negotiations, and so forth, are concrete. Other experiences, such as analyzing data, developing strategy, and anticipating competitive activity, are inherently abstract. To illustrate, organizing and implementing a program for space exploration might appear to have concrete components, but most of the substantive work would be characterized as theoretical and abstract, the product of what Einstein characterized as "thought experiments" (Norton, 1996).

One might also define learning in terms of a specific problem context. For instance, much of Einstein's work on the theory of relativity was anchored in the context of trying to understand a specific problem, the relationship of time, space,

EXHIBIT 2
COMPARING THE COGNITIVE, AFFECTIVE, AND PSYCHOMOTOR DOMAINS OF EDUCATIONAL OBJECTIVES

Cognitive Domain	*Affective Domain*	*Psychomotor Domain*
Knowledge, or the ability to recall ideas such as facts, concepts and theories	***Receiving***, or the tendency to recognize and pay attention to important stimuli	***Perception***, or the ability to sense objects, qualities and relationships via sensory organs
Comprehension, or the ability to understand and make intellectual use of knowledge	***Responding***, or the tendency to act in appropriate ways as a result of a stimulus	***Guided response***, or the ability to perform a specific act under the guidance of a teacher
Application, or the ability to map concepts onto actual objects, events or phenomena encountered in the real world	***Valuing***, or the assignment of importance to various ideas, stimuli, or other environmental phenomena	***Complex overt response***, or the ability to perform a complex pattern of acts
Analysis, or the ability to break ideas down into their parts and logical premises	***Organization***, or the arrangement of values into a coherent, stable system	***Adaptation***, or the ability to alter an act to meet the demands of a new situation
Synthesis, or the ability to develop new ideas from apparently unrelated parts	***Characterization by a value***, or the use of values to control one's behavior	***Origination***, or the ability to develop new acts through the application of unrelated skills
Evaluation, or the ability to judge the merit of ideas for given purposes		

matter, and energy (Einstein & Taub, 1950). The problem context is implicit in the learning cycle portrayed in Exhibit 1. That is, "concrete experiences" take place within a problem context; "observation and reflections" relate to experiences within a particular context; "formulation of abstract concepts and generalizations" and "testing implications of concepts in new situations" are, by definition, applied to a broader set of problem contexts.

In experiential learning, a student faces some form of relevant task within a problem context, however concrete or abstract, and proceeds toward some kind of problem-oriented work product (the output of the task). The product can be a physical action or a deliverable (a paper, plan, decision, etc.), or it can be an idea. The degree to which the exercise is truly experiential, and hence, educationally effective, depends on both its relevance to one or more contexts and the amount of meaningful feedback it provides the student to fuel the co-creative cycle portrayed in Exhibit 1.

DEFINING THE WORK PRODUCT

Recall from the previous discussion that teachers can provide students with a task to create a work product, such as an action or a deliverable. To develop an effective experiential strategy for stimulating co-created learning, we must first establish a framework for conceptualizing relevant work products. Ideally, a work product should be founded in the classic taxonomies of educational objectives.

These taxonomies were developed by a task force of psychologists, originally lead by Benjamin Bloom, who sought to develop a comprehensive taxonomy of educational objectives (Krathwohl, 2002). The first taxonomy addressed the cognitive domain, identifying progressively more demanding intellectual skills, ranging from acquiring knowledge to logically evaluating the merits of intellectual propositions (Bloom, Engelhart, Furst, & Krathwohl, 1956). The second taxonomy addressed the affective domain, including a similar range of increasingly demanding skills ranging from recognizing and attending important stimuli to developing and using a value system to control one's behavior (Krathwohl, 1962). A third taxonomy conceptualized the psychomotor domain, where cognitive and affective objectives are combined into internalized patterns of actual behaviors. These combinations range from sensing relevant stimuli via multiple sensory organs to formulating new behavioral patterns through the application of unrelated skills (Santos, 2016; Simpson, 1972). Exhibit 2 summarizes the three taxonomies (domains) of educational objectives.

A follow-up project separated the cognitive domain into a process and knowledge dimension, as illustrated in Exhibit 3 (Anderson & Krathwohl, 2001). Krathwohl (2002) distinguishes the process and knowledge dimensions by using the analogy of verbs and nouns, respectively. The process dimension addresses the way people think, while the knowledge dimension involves classifications of thoughts.

Factual knowledge (the label of the first row in Exhibit 3) includes fundamental building blocks of accumulated expertise, including such things as terminology and objective data. Conceptual knowledge (second row) incorporates generalizations about the nature of factual knowledge and how generalized patterns relate to each other, providing a basis for extracting meaning from factual knowledge through a process of abstraction, classification, and association (Barsalou, Kyle Simmons, Barbey, & Wilson, 2003). Procedural knowledge (third row) identifies patterns of activity and problem-solving behavior, providing templates for useful activities (Jonassen, 2000). Finally, metacognitive knowledge (fourth row) embodies results of the most sophisticated types of thinking, including strategy that incorporates an understanding of self and how adopting a particular pattern of thoughts or actions will impact on future events (Sadler-Smith & Shefy, 2007; Schwarz, 2004).

EXHIBIT 3
A REVISED COGNITIVE TAXONOMY OF EDUCATIONAL OBJECTIVES

THE KNOW-LEDGE DIMENSION	THE COGNITIVE PROCESS DIMENSION					
	1 Remem-bering	2 Under-standing	3 Applying	4 Ana-lyzing	5 Evalua-ting	6 Creating
A. Factual						
B. Conceptual						
C. Procedural						
D. Meta-cognitive						

Source: Lorin W. Anderson and David R. Krathwohl. *A Taxonomy for Learning, Teaching, and Assessing.* New York: Longman, 2001, p. 28.

The process dimension (comprising the columns in Exhibit 3) parallels Bloom's original cognitive taxonomy (Cannon & Feinstein, 2005), except that it reverses "synthesis" and "evaluation" in their order of difficulty, renaming synthesis as "creating". The process dimension addresses the ways in which the mind handles various types of knowledge, applying increasing levels of sophistication as one progresses from simple remembering to creating new metacognitive knowledge.

The foregoing taxonomic classifications of co-created learning provide a very general approach to defining potential work products. Indeed, one of the original purposes in developing the taxonomies was to help educators define skills that particular educational activities might develop. For instance, a business simulation game might provide an opportunity for students to remember, understand, and apply strategies (metacognitive knowledge) they might have studied; to use them as a basis for analyzing data provided by the game; to evaluate the relative merits of strategies in light of the data; and ultimately to create a unique set of strategies (work product) to achieve a particular desired outcome.

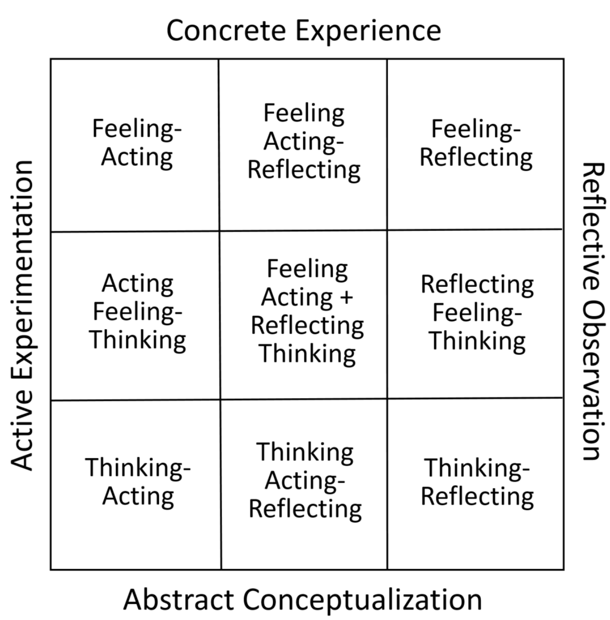
An educational experience structured around a business simulation provides a high level of experiential (co-created) learning. But one might argue that taking an actual job that also requires the student to cognitively process stimuli and to develop appropriate behavioral responses provides the same opportunity of learning. The hazard of using an actual work experience for learning is that students might fail to rigorously reflect, theorize, and test their experience (referring to the co-creative learning cycle in Exhibit 1) because they become emotionally involved in the outcome of their decisions rather than the process by which they are achieved, a problem that can also occur in experiential exercises (Gentry & Burns, 1997). Clearly, an actual job would be highly experiential, but might not result in much experiential learning. In contrast, one advantage of a simulation game setting is that the teacher can provide operant resources that help students to engage effectively in the "observations and reflections" and "formulation of abstract concepts and generalizations" phases of the learning cycle. This is often accomplished through a debriefing process (Lederman, 1992; Markulis & Strang, 2014).

Note that our discussion of the business simulation game and its debriefing applies most closely to learning associated with the cognitive domain. Exhibit 2 suggests the presence of affective and psychomotor domains as well. While business simulation games typically lean heavily on learning objectives addressed in the cognitive domain, experiential exercises in interpersonal behavior or group management would lean more heavily on learning objectives growing out of the affective domain. An exercise addressing various forms of business communication would lean heavily on objectives from the psychomotor domain.

Kolb and Kolb (2005) acknowledge that different kinds of tasks and their associated work products stimulate different kinds of learning. Rather than working with the cognitive, affective, and psychomotor taxonomies, Kolb and Kolb suggest that learning situations vary by the degree to which they incite different stages in the experiential learning cycle portrayed in the bottom portion of the Exhibit 1, creating what Kolb and Kolb call learning styles (i.e acting, feeling, reflecting, and thinking). Exhibit 4 illustrates the framework.

Exhibit 4 provides a useful guide for structuring different disciplines' students' work products in an effort to create experiential learning. To illustrate, Kolb and Kolb (2005) note that management students typically exhibit learning styles that fall into the lower three cells of the matrix while art students' styles typically fall into the upper three cells. Obviously, this depends in part on the nature of the students, but it tends to reflect the kind of learning requisite to succeed in management versus the arts. It is also possible that students self-select to areas of study where the learning style matches their natural interests and co-creative abilities, further honing their abilities to fit the requirements of their field of study (Kniveton, 2004; Ryan & Deci, 2000). Those students who self-select in a way that mismatches their interests and abilities with prevalent

EXHIBIT 4
KOLB'S NINE-REGION LEARNING STYLE GRID



Adapted from Alice Y. Kolb and David A. Kolb (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning & Education* 4:2 (June), p. 198.

learning styles tend to be less successful in learning (Conard, 2006; Komarraju, Karau, & Schmeck, 2009). Insomuch the education provider offers work products that cater to students' learning styles, we expect greater co-creative effort resulting in more effective learning.

Formalizing the Theory

Geddes et al. (2015) develop a model of learning to guide the development of educational strategy, where the educational value of the strategy to a particular student is a function of the operant resources provided by the educational provider (the teacher) and the operand resources provided by the student, as represented by Equation (1):

Geddes et al. (2015) address the educational strategy by configuring the design of educational programs along three operant resource dimensions – knowledge and skills (k), motivation (m), and networking (n). The strategy engaged by the teacher ($R_{p,k,m,n}$) should be developed to exploit the strengths and to address the weaknesses of the available student resources ($R_{c,k,m,n}$). In cases where both student motivation and knowledge -related resources are high, the educational strategy would be most effective if it supplied operant resources related to the subject area of the course, to maximize content learning. In cases where student motivation is high, but knowledge-related resources are low, the strategy should focus on expanding those resources available to the student through networking. In cases where student motivation is low but knowledge-related resources are high, the strategy should focus on creating student motivation. In cases where both student motivation and knowledge-related resources are low, the most effective strategy would focus first on enhancing student motivation and then on building networking ability.

Cannon et al. (2016) elaborated on the motivational aspects of the Geddes et al. (2015) model, identifying elements of course design that might be used to enhance student motivation. The paper also addresses the cognitive, affective, and psychomotor taxonomies (Exhibits 2 and 3 above), but it does not incorporate them into the formal model illustrated by equation 1. Rather, Cannon et al. (2016) use the distinction between taxonomies to illustrate differences between strategies that address knowledge versus values. Further, Cannon et al.'s (2016) paper does not discuss the concept of work products, or their role in enhancing the experiential nature of an educational program. However, their paper's discussion foreshadows the need for programs whose differences lend themselves to different learning styles (Kolb and Kolb, 2005). As we suggest in this paper, the practical application of addressing different learning styles is to incorporate student work products into the curriculum that require a particular student's (or type of student's) preferred learning style.

Returning to our rendition of Geddes et al.'s (2015) model, the addition of learning styles would entail an additional index (l) to represent the strategic mix of operant resources that cater to a particular learning style ($R_{p,k,m,n,l}$) and the corresponding student profile of available operand resources, including the

$$V = f(R_{p,k,m,n}, R_{c,k,m,n}) \cdot BI \quad (1)$$

where

V = Expected value to a student of planning to engage in the educational behavior,

R_p = A relevant system of operant resources provided by one or more teachers,

R_c = A relevant system of operand resources possessed by the student,

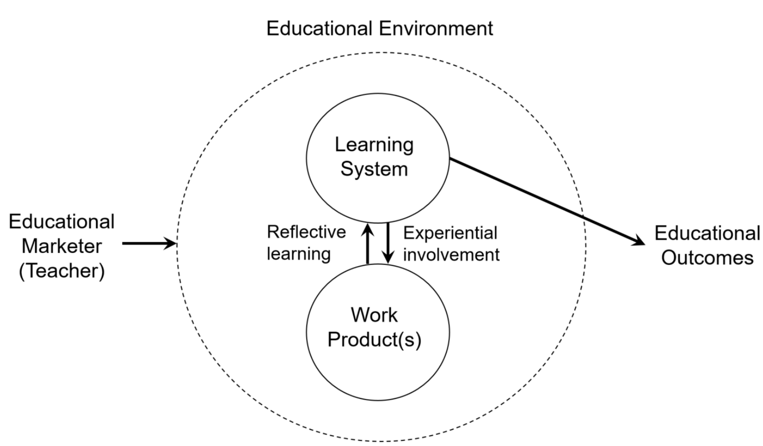
k = An index representing the particular knowledge and skill components incorporated in the resources provided by the teacher or possessed by the student,

m = An index representing the particular motivational components incorporated in the resources provided by the teacher or possessed by the student,

n = An index representing the particular networking components incorporated in the resources provided by the teacher or possessed by the student,

BI = Behavioral intention or the degree to which the student intends to participate in the educational behavior.

EXHIBIT 5
A GENERAL FRAMEWORK FOR STRUCTURING EXPERIENTIAL STRATEGIES



student's preferred learning style ($R_{c,k,m,n,l}$). The value of l would indicate which of the nine learning styles portrayed in Exhibit 4 would be incorporated into the educational activity's strategic work product(s).

As a final comment regarding the model, note that Exhibit 1 portrays both the teacher and student resource systems as containing operant and operand resources. This appears inconsistent with the model portrayed in Equation 1, where the teacher contributes operant resources to the co-creative process and the student provides operand resources. However, the apparent inconsistency is the result of the unspecified functional form *f*. The nature of the educational process is both dynamic and recursive, as suggested by the learning cycle that drives the educational co-creation process portrayed in the bottom portion of the exhibit. The model portrayed by equation 1 reflects those operant resources the teacher provides that are needed to start the co-creative process, activating the student's operand resources. The dynamic nature of the process means that, once started, the system changes as the student begins interacting with other available resource providers. It is recursive in that one of the changes taking place is that the student's operand resources (knowledge, skills, motivation, and access to additional network resources), once activated by the teacher's operant intervention, become themselves operant resources, activating other operand resources. We leave the explicit modeling of a dynamic and recursive functional form (*f*) that describes the co-creative process to future research.

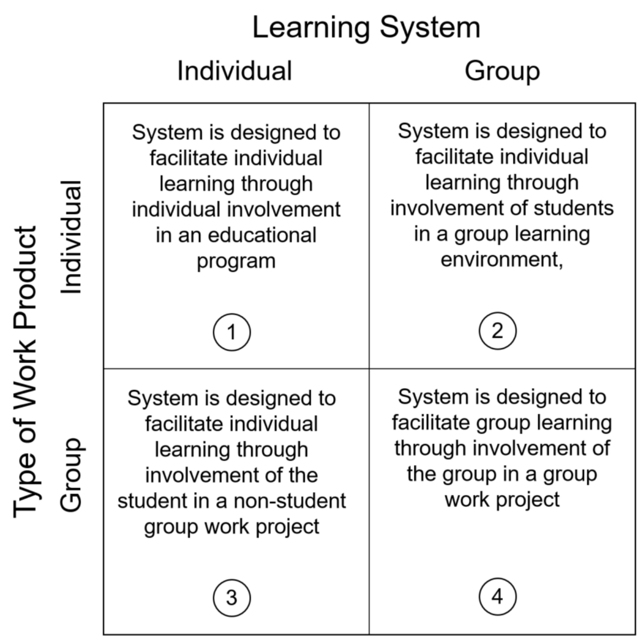
However, for intuitive appeal, consider an illustration of the co-creative process might look like in an actual classroom situation. The teacher begins by delivering a syllabus and discussing the task requirements of the work product(s) that comprise the course. S/he offers insights – knowledge, skills, motivational cues, and available resources – on how the students might go about delivering their assigned work product (s). The students then engage the co-creative learning cycle. They reflect on what the teacher has said and begin formulating ideas about what they will need to do in order to complete the assignments. They test these ideas by asking questions (deploying their own operant resources to activate the teacher's operand knowledge of course structure). The result is concrete experience – a confirmation or disconfirmation of the students' theories about the assignments. Students reflect on this new experience and begin the learning cycle again by reformulating and testing their updated conceptual understanding.

Again, the degree to which the process is "experiential" depends on the match between the students' learning style and the learning style required to accomplish tasks that result in an effective work products, and the extent to which students invest in the co-creative learning cycle we have just described. We contribute to the ABSEL literature by offering a framework for increasing the effectiveness of experiential approaches to developing business knowledge and skills. In this paper, we have focused on the importance of work product approaches relating primarily to the k variable (nature of resources offered by the teacher) in Equation 1. Cannon et al.'s (2016) discussion of "transformational education" addresses the m variable, the motivational components of education. We have discussed the l variable, learning styles, in conjunction with Exhibit 4. We will now turn our attention to different approaches to addressing group work and networking, the n variable in the strategic mix.

A FRAMEWORK FOR CONSTRUCTING EXPERIENTIAL STRATEGIES INCORPORATING GROUP WORK AND NETWORKING

The marketing co-creation literature posits that consumer value co-creation can involve resources provided by complex systems of people in addition to the resources provided by the supplier and the consumer. We argue that this principle is also true in educational co-creation settings. To illustrate how this might be the case, we offer Exhibit 5 as a general framework for structuring educational experiences. The teacher provides an educational environment in which the co-creative learning process takes place. The teacher creates a relevant problem situation, which is structured around a set of work products. The teacher can structure the learning environment to specify who,

EXHIBIT 6
A TAXONOMY OF NETWORK-RELATED EDUCATIONAL STRATEGIES



in addition to the teacher and students, are formally included. This is incorporated in the "learning system" portion of the exhibit. Of course, the teacher may not have complete control over what participants are included in the learning system. For example, students may involve parents, peers, tutors, and/or other individuals from other networks.

The multiple alternative ways a learning environment can be structured to include/exclude individuals constitute the values assignable to the *n* (networking) variable in Equation 1. We posit that there is a large, if not an infinite, number of alternative combinations of individuals that could be engaged. We offer a very general set of alternatives that results in four strategies reported in Exhibit 6. Again, the "learning system" portion of Exhibit 5 specifies the types of interactions the will be formally incorporated into the strategies described in the columns of Exhibit 6 (students working as individuals versus some kind of structured group interaction). The "work product (s)" portion of Exhibit 5 specifies the whether the assigned work product(s) described in the rows of Exhibit 6 will ultimately be the responsibility of the individual students or the group as a whole. The following four sub-sections will describe the four types of generalized group work/networking-related learning strategies portrayed in Exhibit 6.

Type-1 Strategies: Individual Work Product(s) Supported by an Individually Oriented Learning System

Exhibit 7 portrays the structure of the type-1 strategy. It represents a strategy where the focus of both the learning system and the work product is on the individual. The actual setting may (and almost always does) include a number of different students, but there is no formal structure specifying the need to work in groups. The work product(s) that drive the experiential learning are the sole responsibility of the individual student.

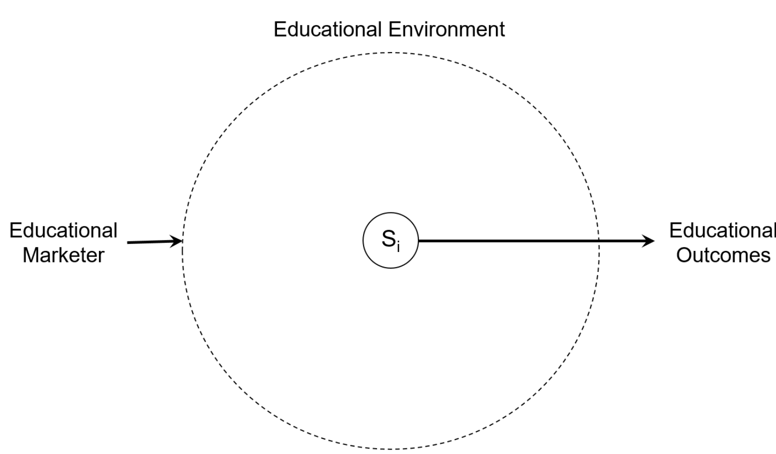
Type-1 strategy is most closely aligned with traditional education. The objective of a type-1 strategy is to involve individual students in the learning process, assigning highly relevant work product(s), evoking a high-level of co-creative involvement on the part of the student. Again, we do not exclude conventional "lecture/discussion" classroom activities from experiential learning, providing they provoke students to experientially engage in the manner we discussed in conjunction with Exhibit 1, which is to say that students experience relevant material through the process of co-creative reflection, conceptualization, testing, and processing of feedback. To illustrate a type-1 strategy, consider the following description of a "lecture/discussion" activity extracted from an undergraduate beginning marketing class. The teacher enters, reviews the topic for the day, and says: "OK, folks, we're going to talk about market segmentation. Christiane, what do you look for in a car?" Pause for response. "OK, Sam, how about you?" A different response. "Hmmm… different responses. But then, I guess that's what you expected, isn't it. You've read what the text says about market segmentation, and I'm sure you've discussed it in other classes. So, let's see if you really understand it. Imagine that I'm the marketing manager for Toyota Prius, and that you're one of several new departmental hires. I'm going to review the way our company thinks about market segmentation. Listen carefully and test what you're hearing against your own understanding and experience. In the end, I will want your analysis, and I will want you to make recommendations. There's no risk. If your ideas don't make sense, we'll talk about why. But be prepared to give me your best thinking."

Note that type-1 strategy can be used in a small lecture/ discussion session or in a large lecture setting. A teacher does not need to directly engage each individual, but each individual must believe that s/he might be called upon as part of the motivation to mentally involve themselves in the larger discussion. The key is to prime the students to engage in the experiential learning cycle by providing a relevant mental work product that they are actively preparing themselves to deliver.

Stylistically, some teachers are particularly effective at administering a type-1 strategy, and often the structure of a university environment lends itself to this kind of lecture/ discussion approach. For instance, small, "tutorial" type class settings with highly charismatic and inspiring teachers can make the lecture/discussion approach particularly effective, and indeed, in some cases even with very large "lecture" classes, where the instructor generates so much involvement and enthusiasm that the energy expressed by fellow students provides additional motivation to mentally and emotionally engage.

A type-1 strategy can also be mandated by the structure of many online programs. In other cases, student norms and expectations make the type-1 approach more efficient than trying to alter norms and expectations. That is, students may have been conditioned to expect to a lecture format, and any diversion of class resources to group work is seen as a waste of

EXHIBIT 7
CONCEPTUALIZING A TYPE-1 EDUCATIONAL STRATEGY



their tuition, regardless of any university-imposed classroom structure.

Type-2 Strategies: Individual Work Product(s) Supported by an Interactive Group Learning System

Exhibit 8 portrays the type-2 learning strategy. These strategies are most closely aligned with study groups (Polzer, Milton, & Swarm, 2002), where each student is responsible for individual work product(s), but group members work together to process the material in a highly interactive group co-creative environment. The study groups can be formally organized and administered or informally derived but mandated by the structure of the class. One approach is to use class time in a "flipped classroom" environment, where students have access to lectures and other teacher-provided operant resources out of class, opening class time for more interactive activities (Bishop & Verleger, 2013; Little, 2015; Tucker, 2012). The type-2 approach can also be used in conjunction with a lecture + help session model, where a teaching assistant works with students to help them co-create the material presented in the lecture session (Twigg, 2003).

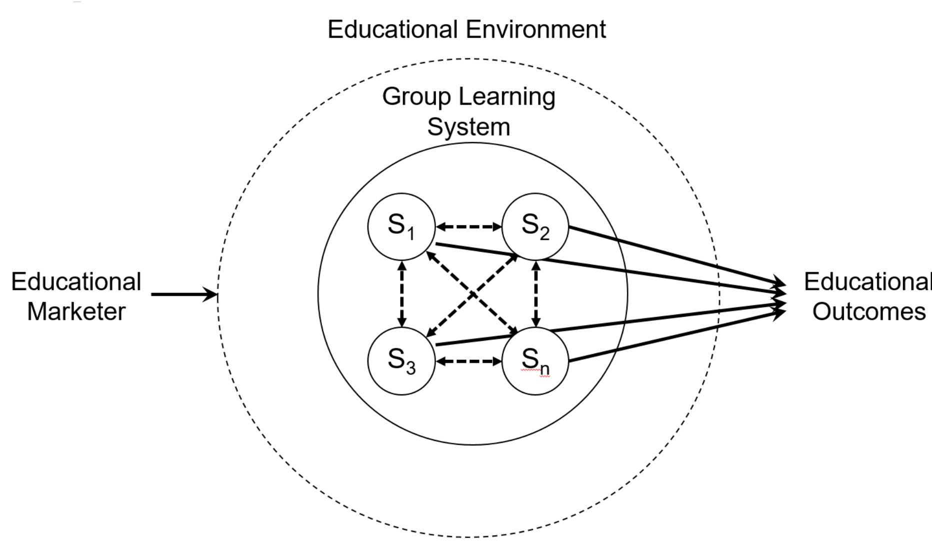
While the work product(s) and educational outcomes are primarily individual, the group interactions offer additional resources to the learning experience, potentially increasing involvement and stimulating more utilization of the experiential co-creative learning cycle (Exhibit 1) by each student. The type-2 approach legitimizes collaborative study, which may otherwise be viewed as unethical according to the formal or informal norms in some university settings (Sternberg & Fiske, 2015, pp. 5–7). The type-2 approach also helps students acquire networking skills and future network contacts (Adler & Kwon, 2002; King, Greidanus, Carbonaro, Drummond, & Patterson, 2009; Tess, 2013), along with other interpersonal skills (Colbeck, Campbell, & Bjorklund, 2000; Sergeychik & Deryabina, 2013), especially if the structure of the course involves some debriefing or other operant resource input to help students process what they have learned about networking (Raths, 1987; Yager, Johnson, & Johnson, 1985).

To illustrate the type-2 strategy, let's return to the market segmentation problem using the Toyota Prius used to illustrate the type-1 strategy. The teacher might introduce the problem in the same manner as in the type-1 example, asking students what they look for in a car, but rather than addressing the problem in the course of the lecture, the teacher might say, "OK, you understand the problem. Imagine that I am the marketing manager for Toyota Prius. I want you to break up into your discussion groups to consider what different kinds of people might look for in a Prius. Your assignment will be to write me a one-page brief on how I might use the concept of market segmentation to enhance my marketing program. You can discuss your papers with each other and help each other as much as you want. However, in the end, each of you must submit your own best work. You should use your group members to stimulate your thinking, but you should test their ideas yourself. If your brief looks too much like those of other members of your group, as your manager, I will assume that you aren't very analytical or creative. Not a good way to start your new job!"

In the type-2 approach, rather than drawing on class discussion alone, the students would discuss the project in a small group setting. A small group setting provides a potentially richer stimulus for the experiential learning cycle, because it provides each student with more air time to propose ideas, get feedback, reflect on the value of the feedback, and reformulate ideas. The small group setting also provides a stimulus for the students to experiment interpersonally with how to get the most out of their group interactions (a networking skill). The experience provides an opportunity for testing different approaches to using peer ideas to stimulate the student's own creative thinking, rather than simply parroting their ideas.

The disadvantage of the type-2 relative to the type-1 approach is that it requires considerable student sophistication to engage in the exercise effectively. In a class lecture/discussion, the teacher can monitor students' responses and shape the discussion to address students' needs. In the group discussion model, the teacher's ability to offer input is much more limited. Effective pre-briefing and debriefing may be able to mitigate this limitation (Fekula, 2014; Saylor, Wainwright, Herge, & Pohlig, 2016). Additionally, using a flipped classroom approach, the teacher can observe the groups' interactions to monitor their process, providing input as needed. While a

EXHIBIT 8
CONCEPTUALIZING A TYPE-2 EDUCATIONAL STRATEGY



flipped classroom creates more time for monitoring and facilitating group processes, with very large classes even this might not be sufficient to provide enough help to individual groups, and the teacher might have to resort to a class lecture/ discussion model for debriefing, reminiscent of a type-1 strategy.

Type-3 Strategies: Individual Learning System, Supported by Work Product(s) and Non-Student Work-Group Members

Exhibit 9 portrays a type-3 learning strategy. These strategies are most closely aligned with internships, most often offered by institutions external to the university (Binder, Baguley, Crook, & Miller, 2015; Gerard Callanan & Cynthia Benzing, 2004; Tully, 2015). In the type-3 approach, the group work product(s) facilitate an understanding of what it means to be a member of a group, where the success of the group is more important than any individual contribution (Tully, 2015). The type-3 approach is challenging for the teacher insomuch as the experience takes place outside of the direct control of the teacher. The lack of control makes it difficult for the teacher to assure an effective educational environment where co-creative learning takes place. To mitigate the lack of control during the learning exercise, the type-3 strategy calls for intensive pre-briefing (Gardner, 2013; Sahakian et al., 2015) regarding what to look for in the experience, and debriefing to help the student process what s/he has learned (Decker et al., 2013; Gardner, 2013).

The type-3 strategy is particularly good for infusing salient real-world experience into the educational environment, enabling students to visualize how real businesses operate. It can also be particularly beneficial to working students, where the approach can enable students to engage their job as an operant resource, essentially making their job a laboratory for their study of the principles they are learning in class. Perhaps the most profound difference between the type-3 strategy and type-1 and -2 strategies is learning associated with a setting where the group's work product is more important than any individual contribution, learning to be supportive of other functions that are dependent on one's efforts, but not under their direct control. For instance, a student may be in charge of gathering data for a sales forecast, a vital function, but one that might not figure directly into any of the metrics by which the sales group is evaluated.

Maertz, Stoeberl, and Magnusson (2014) describe a useful approach to framing a type-3 (internship) approach for the students. To illustrate, the teacher might introduce the internship as follows:

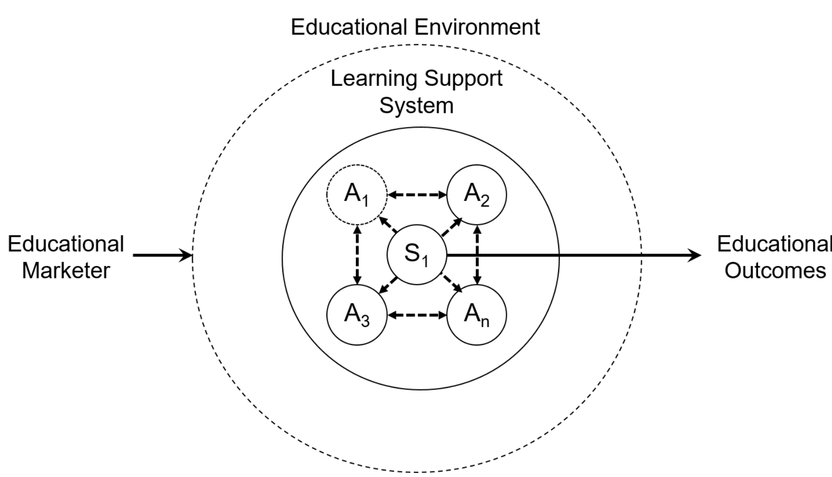
"Aside from learning skills that are specific to your particular internship, doing a good job, making contacts, and maybe landing a future job, I want you to focus on two key issues: First, watch the people around you carefully and compare their actions to what you would do if you were in their position. What are they doing right? Doing wrong? What motivates them? Why is management doing the things it does? Are management policies and the way they are implemented effective? Why or why not? How do all of these observations align with the principles you have learned in your classes?

"Second, note that neither your job nor that of your fellow employees is an individual affair. To what extent do management and your fellow employees appear to have internalized the principle of working together for a larger goal? What would you do to improve collaboration? How do the things you are observing help you understand what happens when you work on group projects in your course work or other work experiences you have had? How can you generalize your experience to help you be a more productive employee, and eventually, a more effective manager?

"I suggest that you take careful notes, reviewing what you have learned each day. When you are finished with your internship, I want you to write a paper addressing what you have learned in light of the issues I have just discussed. We will then meet together to compare each of your experiences with those of other students to see what general principles we can extract."

Note that most of what we are asking of the student interns could be learned in many, if not any work environment. A teacher can take advantage of non-internship work settings (e.g. service learning or part-time employment). For instance, suppose a student is working in a local McDonald's restaurant. A student could observe and apply the principles behind the questions posed above in the McDonald's restaurant setting. Once again, the key to the exercise is stimulating students to engage in the exercise using the experiential learning model described in Exhibit 1, engaging in the internship experience, reflecting on what they observe, reformulating their ideas, and testing them in a continuous cycle.

EXHIBIT 9
CONCEPTUALIZING A TYPE-3 EDUCATIONAL STRATEGY



Type-4 Strategies: Group Work Product Supported by a Group Learning System

Exhibit 10 portrays the type-4 learning strategy. This strategy typically involves team projects, such as certain types of experiential exercises and simulation games (Snow, Gehlen, & Green, 2014). The type-4 approach can also be applied using group research papers (Paradise & Dufrene, 2010), case studies (Wyton & Payne, 2014), live case analyses (Moody et al., 2014), or other types of team projects (Moody, Kostohryz, & Vereen, 2014). Again, we submit that the key to learning effectively using the type-4 strategy is the degree to which the exercise evokes an effective cycle of reflection, analysis, testing, and feedback.

what students learn from participation in business simulation games (P. H. Anderson & Lawton, 2014; Crookall, 2014; Druckman & Ebner, 2008; Wills & Clerkin, 2009). The fundamental difference between type-2 and type-4 approaches is that team effort is structured around a group work product in the type-4 strategy whereas group effort is structured around an individual work product in the type-2 strategy. Similar to the type-3 strategy, the importance of the group product's quality transcends the importance of any individual team member's contribution. The subjugation of self to the group is in itself an important learning, as are the skills required to promote group rather than individual effectiveness. These topics become important topics for the project debriefing (Fritzsche, Leonard, Boscia, & Anderson, 2014).

The same questions that set up the learning environment suggested above to address the type-3 (internship) strategy can also be applied to student group projects, sensitizing students to issues on which they should focus as they apply the experiential learning cycle process. Of course, there are specific content issues embedded in any particular work product. For instance, Pacheco, Bernard, and Cannon (2010) discuss a framework for meaningful feedback on student performance, thus supporting content learning in a simulation game, and Geddes et al. (2016) discuss methods for addressing performance in a student case competition. However, the more general issues relating to a group work product don't change from one group project to another. They are the same as those outlined in the questions posed in our discussion of the type-3 approach.

SUMMARY AND CONCLUSIONS

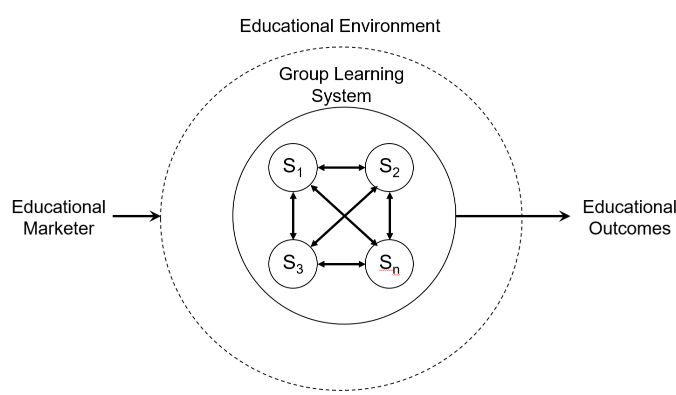
The focus of this paper is twofold: The first is to elaborate on a stream of research addressing the development of strategies for experiential learning. The paper does this by focusing on the role of different types of learning systems, including different groupings of students working on different types of work products. The different groupings relate to what Geddes et al. (2015) characterize as the networking variable, one of the dimensions they propose to be part of their model of experiential learning. In order to establish the underlying rationale for our approach, however, we challenge the notion that any particular type of educational design is necessarily more experiential than another. We draw on the notion of consumer co-creation from the marketing literature (Grönroos & Voima, 2013) and the experiential learning process as postulated by Lewin (1946) and elaborated by Kolb (1984) to argue that all effective learning is necessarily experiential, and the product of a co-creative learning process.

The second focus, the fundamental nature of experiential learning itself, provides the underlying principle driving each of the four experiential strategies. We define experiential learning in terms of the learning process in which the student engages rather than the nature of the learning environment the teacher creates. This is at odds with the notion that experiential learning must necessarily happen outside the classroom, or at least involve an experiential context that goes beyond a student teacher interaction. We address this by arguing that experience is ultimately something that takes place in the mind, not necessarily involving externally observable physical activity. Indeed, with the provision of this mind focus, we argue that our approach addressing the criteria generally seen as necessary for experiential learning, as articulated by Gentry (1990) in his review of experiential learning.

Addressing experiential strategies, as illustrated through the group work and networking discussion in this paper, requires two questions to be answered: First, to what degree does a particular strategy address the type of interactive and networking skills we wish to teach? And second, to what extent does the manner in which the strategy is implemented result in experiential learning? That is, to what degree does the strategy promote effective co-created learning activities? We have sought to address the first question in our discussion of the four experiential learning strategies characterized in our discussion of Exhibits 5 through 10. We have sought to answer the second in our discussion of Exhibits 1 through 4, with special emphasis on Exhibit 1. As Gentry et al. (1998) note in their retrospective analysis of more than 20 years of ABSEL papers, the literature still begs a generally accepted understanding of the nature and operationalization of experiential learning.

The operationalization, of course, depends on our understanding of the nature. Our conception of all learning as

EXHIBIT 10
CONCEPTUALIZING A TYPE-4 EDUCATIONAL STRATEGY



experiential, draws on the theoretical roots provided by Lewin (1946) and subsequently elaborated by Kolb (1984), that experiential learning involves a continual cycle of observation, reflection, theorizing, and testing of one's understanding of the environment. This is a process that transcends any particular experiential design. But for all its generality, it is also a very practical theory. It provides a common basis for evaluating experiential learning, as called for by Gentry et al. (1998). The amount of experiential learning that has taken place can be measured by the amount and quality of co-creative effort put into observing, reflecting upon, conceptualizing, and testing the relevant aspects of a particular educational activity. Proposing specific methods for operationalizing these activities goes beyond the scope of this paper, but we submit that the task is tractable and worthy of future research.

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