The SPEC™ Teaching & Learning Philosophy

A Leading EDGE White Paper

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Teaching People to Work and Learn Together

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Preface

Since 1999 we've had the fortunate opportunity to work with thousands of educators from New York to California and from Maine to Florida as well as England, Scotland, Wales, the Isle of Jersey and Beirut, Lebanon. This experience has had a profound effect on our thinking about teaching – particularly our thoughts about the preparation and delivery of formal learning experiences. We are convinced that the teacher-centered, often didactic approach to formal instruction that most of us have experienced needs to be re-examined. Research into the brain and learning, discussions recognizing the existence of multiple intelligences and emotional intelligence, and our increased appreciation of the constructivist theory of learning all suggest we can reach the full range of learners, each of whom have their own perspectives and style of learning, only if we expand our repertoire of teaching strategies beyond traditional chalk and talk. Didactic, direct instruction is an important tool in the tool bucket of an experienced educator. It should not, however, be the only or, in our view, primary tool.

We recognize the incredible power of creating as authentic learning opportunities as possible. Authenticity by its very nature is rich in opportunities for personal growth. The more authentic the learning experience the more students must engage fully in the struggle to meet the real challenges that confront them. In the process, they develop the knowledge, skills, and dispositions necessary to solve problems individually and as a team. When debriefed and processed appropriately, these experiences often spur leaps of individual insight and growth that are truly profound. Why is this so? And, perhaps more to our point here, why don't our more traditional lessons and presentations have similar impact? What are some principles about learning that we might glean from the seemingly spontaneous learning that takes place in an authentic learning environment? How can we apply these insights in our formal lesson planning and presentations so that we may enjoy similar results?

In this paper, we share our current thinking. In an attempt to distill our thoughts to their essence, we will use an acronym to refer to the basic principles we've gleaned from our teaching experience. This acronym is SPEC^{tm} – i.e., Student-centered, Problem-based, Experiential, Collaborative teaching and learning environment.

TEACHER OUTCOMES:

A. SPEC teachers provide evidence of their knowledge and understanding by:

1. Describing the experiential cycle and its role in teaching and learning
2. Describing the role of a teacher who creates a Student-centered, Problem-based, Experiential, Collaborative (SPEC) learning environment
3. Comparing the advantages and disadvantages of various instructional strategies, including: Student-centered vs. Teacher-centered, Problem-based vs. Content-based, Experiential vs. Theoretical, Collaborative vs. Individual
4. Describing a selection of activities, tools, and techniques that will facilitate learning
5. Comparing a variety of feedback strategies for assessing teaching and learning

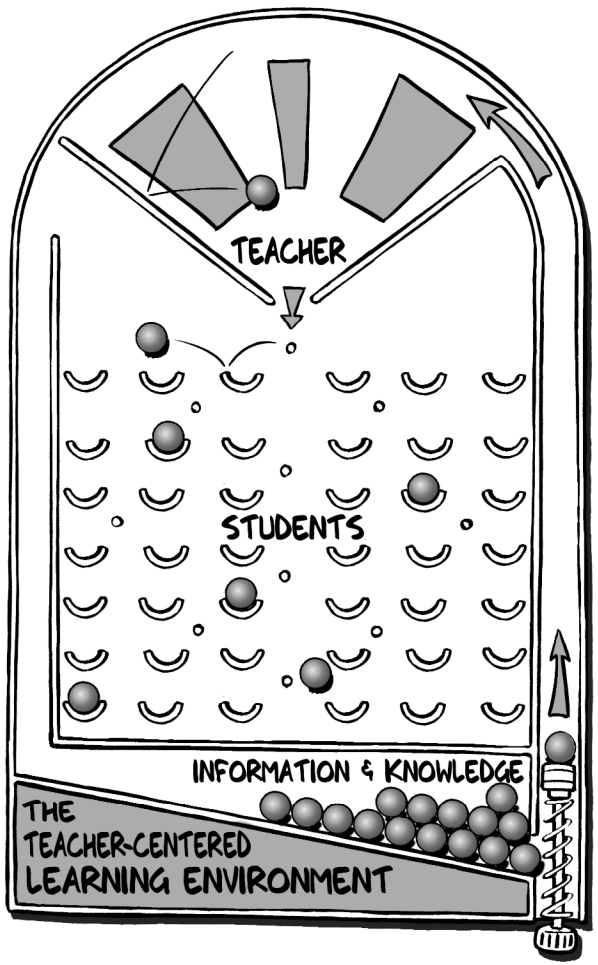
B. SPEC teachers provide evidence of their skill by:

1. Creating and coaching learning experiences that apply each of the Student-centered, Problem-based, Experiential, Collaborative instructional strategies
2. Providing a physically and emotionally safe environment for teaching and learning
3. Anticipating and utilizing opportunities for teachable moments
4. Using a variety of appropriate activities, tools, and techniques in "formal" lessons
5. Using appropriate strategies for assessing teaching and learning, including: observation, checklists, debriefs, sweeps, "traditional" tests, assessment tasks, End of the Day logs, check-ins and rubrics
6. Facilitating a debriefing

C. SPEC teachers provide evidence of their dispositions by:

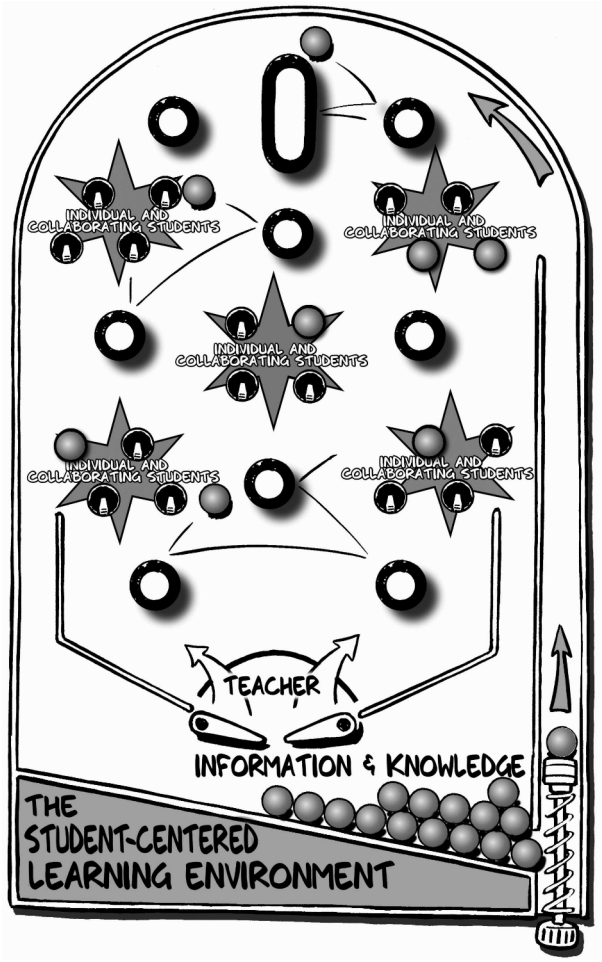
1. Reflecting in journals and during debriefs about their teaching and learning experiences
2. Asking questions rather than giving answers
3. Applying the teaching activities, tools, and techniques to facilitate learning
4. Modeling Student-centered, Problem-based, Experiential, Collaborative lessons
5. Seeking first to understand, then to be understood
6. Struggling with and reflecting on issues of student vs. instructor or leader control
7. Making value judgments about the prioritization of outcomes

←Traditional Learning Environment



Graphic A

SPEC Learning Environment→



Graphic B

Characteristics of a SPEC vs. "Traditional" Learning Environment

SPEC Environment	"Traditional" Environment
Student-Centered – Students learn by talking, listening, writing, reading, creating, and reflecting on content, ideas, issues, and concerns as they work in small groups or individually to engage the curriculum. Authority is shared with the teacher in many ways. Students have direct access to knowledge. They are encouraged to develop their own questions and arrive at some of their own conclusions with teacher guidance. It is presumed that students have pre-existing knowledge and skill that they can contribute to the learning. Students may learn from each other as much as they learn from the teacher. See Graphic B	**Teacher-Centered** – The teacher is the center of authority. The teacher transmits most information and all knowledge to the learner. It is presumed that the teacher will ask most of the important questions and that these questions have a correct answer that must be validated by the teacher. Students are "empty vessels" - teachers are the experts that fill the vessels with appropriate knowledge. See Graphic A
Problem-Based – Teachers design complex and increasingly authentic problems for students to solve individually or in collaborative teams. Students must grapple with information (the content) as well as use skills (social, intellectual, emotional) to solve the problems successfully. Feedback and assessment is an integral and ongoing part of the process. Successful learning is assessed on multiple levels: content understanding, group process, individual skill development, etc. Students receive personalized narrative feedback regarding their performance from several sources: peers, teacher, and self-assessment. The teacher serves as a facilitator, guide, co-learner, mentor, and coach who helps students through the problem-solving/learning process.	**Content-Based –** The coverage of content is the focus of the learning**.** Teachers create structured lessons designed to help students understand and recall important facts, concepts, and processes that they will be expected to recall on tests and examinations. Concern for skill development is often tied directly only to those skills that are required for improved mastery of the content. Assessment often comes at the end of a unit of study and is frequently evaluated in terms of percentages of correct answers or expressions of understanding as shown on pencil and paper tests. The teacher may have little or no opportunity to share personalized, narrative feedback with each student to provide direction for future improvement.
Experiential – Students learn by doing. All learning occurs within the context of real, first hand experiences. Students participate, make choices, and accept some responsibility for their role in the learning process. The interactive nature of this approach creates a wealth of physical, intellectual, emotional, and social experiences. Learners construct their own meaning by reflecting on all these experiences. They are prompted to make connections to their own lives, larger contexts, and theory during this reflective stage.	**Theoretical –** Students generally learn by listening, reading, writing, or following tightly scripted activities related to the curriculum. Students have very few choices of consequence. The curriculum exists in and of itself. Passing exams is the primary context for motivation. Curricular content is often pre-packaged in discreet bundles of information to be learned in a prescribed, often linear sequence. Students may or may not recognize any connection between the content and their own lives.
Collaborative – All learning takes place in a social context. Working as an individual or as part of a collaborative team, students consistently function as part of some larger "community." While competition has its place, collaboration is the fundamental value. All learners are expected to work with and show respect for others. Through multiple experiences, reflection, and a conscious attention to the emotional health of the group members, students learn to value (rather then merely tolerate) the differences in each other. Success for both individuals and the group is recognized and rewarded.	**Individual –** Individual performance is the primary measure of success. Competition is encouraged as a predominant value. Individual accountability and achievement is recognized and rewarded. Group accountability and achievement may go unrecognized or actively discouraged. Little emphasis is placed on the development of social skills or group decision-making, management, or leadership skills. The emotional health of the group members is not as high a priority as individual grades on exams.

Table 1

Thoughts on selecting a teaching methodology – Selecting a teaching methodology appropriate to the context of student and teacher needs requires considerable experience and judgment. As with any complex decision, many variables must be considered to raise the probability of a successful outcome. Clearly "one size fits all" does not apply. While we urge readers to carefully consider our SPEC approach, we recognize the well-established value of more traditional methodologies. Following is a table in which we share some of our thoughts regarding specific issues that may influence your choices.

Issues in Comparing SPEC vs. Traditional Approaches

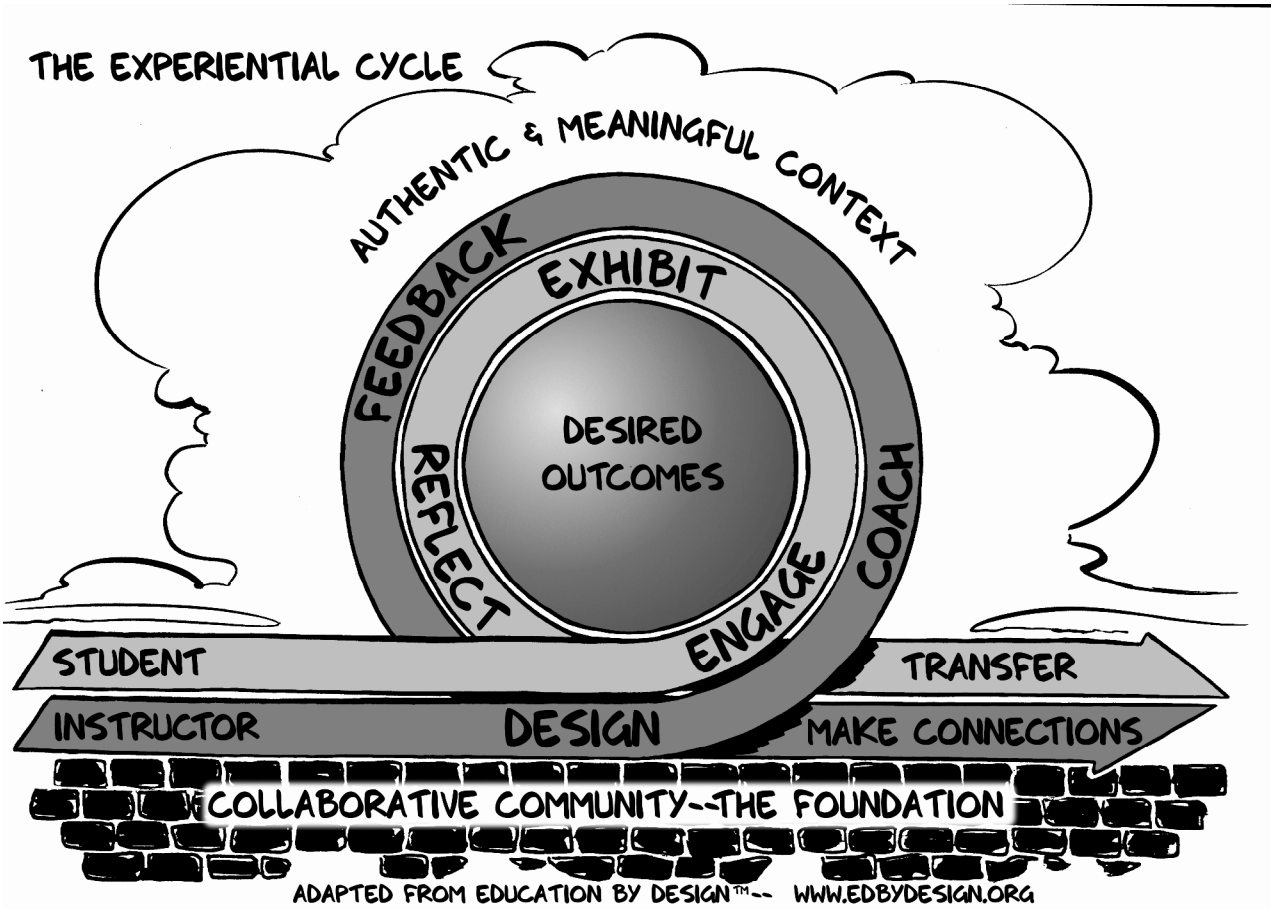
SPEC	Issue	Traditional
SPEC learning usually takes more time. A powerful learning experience proceeds at the pace of the learner – not necessarily that of the teacher or some external schedule.	**Time**	Traditional lessons can be tailored much more predictably to time constraints as many (if not all) of the variables are under the control of the instructor.
SPEC learning definitely leads to a greater depth of learning among a wider range of students. Living the experience at multiple levels (physical, intellectual, emotional, social, spiritual) creates the opportunity for a broad array of very powerful, long-term understandings and insights.	**Depth of Understanding**	Traditional lessons have the potential to produce reasonable depth of understanding in the specific area of focus (physical, intellectual, emotional, social, spiritual), provided that the style of presentation matches the learning style of the specific student.
The SPEC approach may help many learners to synthesize a great deal of knowledge and experience. It is questionable whether this approach is worth the time it takes if the goal is to introduce and recall lots of information for the short term.	**Breadth of Understanding**	Traditional lessons can "cover" a wide area of information in a short amount of time. Effectively presented and reinforced, the information can be recalled successfully in short term memory.
SPEC experiences can be "life-changing" for some learners. Ownership implies some measure of personal investment. With the high degree of student participation and interaction, decision-making, and commitment required, SPEC learning invites deep investment and therefore a tremendous amount of student ownership and pride in positive results.	**Emotional Impact & Ownership**	Ownership is not often a descriptor associated with very traditional approaches. Since most decision making and control is in the hands of the teacher, successful participation in a traditional learning experience may require little student investment of personal energy.
Teachers who are successful using the SPEC approach generally possess all the qualities of a solid traditional instructor. However, in addition they must: - Be comfortable with yielding some control to learners. - Be comfortable not knowing all the answers. - Be comfortable with the messy chaos that often attends experiential learning. - Be prepared to let students struggle and/or fail for the sake of the learning.	**Essential Teacher Qualities**	Teachers consistently successful in traditional instruction usually have a complete mastery of the content, well-developed group management and organizational skills, an appreciation of learning theory, and an engaging and/or nurturing personality that develops relationships with a diverse array of students. It is important that the teacher be mature enough to put the needs and best interests of the learner first.

Table 2

A SPEC learning environment has a distinctive rhythm or feel to it. Over time, participants in this environment soon fall into its rhythm, anticipating the next stage in the pattern before it arrives. We call this rhythm the Experiential Cycle.

We recognize that this concept of an Experiential Cycle has been around for a while and that many versions of it exist. Following is our explanation of the Experiential Cycle as adapted from Education By Design, a staff development organization of Antioch New England Graduate School, Keene, New Hampshire.

The Experiential Cycle – In Graphic C, we try to represent the feel of a SPEC learning environment. In simplest terms, learning in involves the interaction of three essential components: the student learner, the instructor (who also learns), and the context of challenging experiences (whether planned or spontaneous) that may yield important understanding and insights.



Graphic C

First things First

The Community Context – SPEC instructors recognize that all groups that stay together very long develop a kind of "culture", i.e., a complex set of personal and group behaviors shaped by common expectation, habit, ritual, and tradition that determine how people interact with each other. In a SPEC environment, we don't want the formation of this cultural context to be haphazard. Indeed, the SPEC approach suggests that we consciously use some specific group team-building activities and processes to help shape a culture of mutual respect and trust we know supports high quality small and large group collaboration. It is a given that these team building activities and group processes are among the first experiences that the group encounters. SPEC classroom teachers need to go beyond simple "ice-breaker" actives and do things that help learners get to know each other on a personal level and/or to form a small group identity.

Desired Outcomes – A SPEC learning environment is driven by the desire to achieve a set of well-known and clearly articulated outcomes that everyone involved agrees are desirable. It is extremely important that everyone periodically revisit these outcomes: to review individual and group understanding of them, review individual and group progress toward them, and reaffirm the common commitment to achieve them. Again, these desired outcomes should be discussed early on. SPEC classroom teachers frequently must focus on standards or targets determined by external agencies like national and state governments, or by school, departmental, or organizational decision-makers.

Moving through the Cycle – Teacher and Student

Teacher Cycle – The teacher path through the cycle tends to follow three stages. In reality, these stages are not as clearly distinct and separate from each other as the diagram might suggest. Experiential learning is rarely linear and cleanly sequential. Having said that, we do recognize at least three stages an instructor will typically pass through during any one learning experience.

Design Phase – SPEC instructors are architects of learning. As such they give thoughtful consideration to designing learning experiences that require learners to develop and use the knowledge and skills they need to become better outdoor leaders. In the wilderness leadership setting, leadership, decision-making, and judgment are paramount among the outcomes instructors use to

guide their design process. SPEC teachers learn to see their traditional curriculum or lessons as potential "problems to solve" (challenges). They design activities that will prepare the students to engage these classroom challenges.

Coaching Phase – Teachers must provide appropriate support for learners who are grappling with a challenging experience. In this case, support does not mean unnecessarily shielding the students from the power of the experience or rescuing them from the consequences of their own decisions. For many teachers schooled in traditional methodologies, knowing when to "step in" and actively help students vs. "step back" to let them go on their own is one of the most difficult judgment calls to make. In either case, coaching learners through the experiences frequently requires an instructor to play many different (and sometimes seemingly conflicting) roles, including facilitator, mentor, mediator, and often that of co-learner. In the SPEC classroom the teacher role is much more "guide on the side" than "sage on the stage." Central to the role of teacher-guide is the practice of responding to student inquiries with probing or clarifying questions rather than directive statements or answers that tell them what to do. "What do you think?" is a question fundamental to the repertoire of a SPEC classroom teacher.

Feedback Phase – Instructors are responsible for giving feedback to learners as they progress through a challenging experience. Feedback does not come only with a test at the end. Indeed, feedback on performance should be occurring throughout the experience. In all cases, it is important that feedback be connected to clear quality criteria that the learners have at least discussed with the instructor. In some cases, it may be appropriate for the learners to have had a hand in articulating the criteria. While teachers are the ultimate guardians of the standards of quality, it is essential that learners have some opportunity to self-assess and get appropriate feedback from peers as well. The goal of assessment should be to help learners internalize their own understanding of quality performance and thus accurately assess themselves. As our wilderness mentor Paul Petzoldt frequently stated, "You gotta know what you know and know what you don't know." SPEC teachers recognize that feedback in their classes ought not be just about grades. Feedback, instead, is an ongoing conversation that answers the student question, "How am I doing?" with regard to known targets and clear criteria.

The Student Cycle – Students respond to the design of a challenge by grappling with the essential knowledge and practicing targeted specific skills that are necessary to complete the challenge and

improve their capacity as learners and global citizens. Similar to an instructor, the student passage through a challenging experience typically involves three stages.

Engagement Phase – Once the challenge is put before them and their understanding of its nature clarified, students set to work on solving the problem at hand. Ideally, this stage of engagement gets them involved on multiple levels (intellectually, physically, socially, emotionally, spiritually) simultaneously. A successful challenge is sufficiently well designed if it engages the whole group and each individual within the group. In SPEC classrooms, learners engage by working together in small teams to create products (posters, brochures, role-plays, art works, etc) that reveal their understanding of content while simultaneously demonstrating their use of some life-long skill.

Exhibition Phase – Whenever learners are involved in a challenging experience, they are exhibiting some aspect of their knowledge, skills, or dispositions as an individual and as part of a group. It comes as a shock to some learners that the exhibition phase of a SPEC environment goes well beyond the limited time frame involving formal testing or presentations. In essence, "the test never ends." In the SPEC classroom, some aspect of a student's knowledge, skills, or disposition is potentially on exhibition all the time and is therefore subject to feedback

Reflection Phase – It is crucial that learners take time to think about their experience, contemplate its significance, and make connections and judgments for use in future situations. These opportunities to reflect may occur publicly in a group debrief or privately in a journal entry. In either event, it must occur for the experiential cycle to be complete. Reflection is essential to learning in the SPEC classroom. Debriefing and journaling are excellent mechanisms for revealing student thinking.

Conclusion

Once we understood the implications of the SPEC approach to teaching and learning, it became obvious that our mental model of who we are as a "teacher" had to change. Previously we saw ourselves as curriculum experts whose task was to "deliver" information to learners in the most engaging and interesting way possible. Part scholar, part stand-up entertainer, we performed on our stage and kept them coming back for more five shows a day, five days a week, month after month.

Our understanding of the SPEC approach changed this mindset and our practice. To be sure, it helps to have mastery of our discipline. It is crucial that educators who adapt SPEC methodologies be capable of differentiating between what is "essential knowledge" and what aspects of the curriculum

are of lesser importance. Because the SPEC approach typically takes more time than traditional methods, we must make judgments about which understandings and skills are worth the time and effort necessary to engage learners in a "challenge" (i.e., a SPEC lesson). Some parts of the curriculum are better approached with traditional methods. If it is easier and just as effective to "tell'em what they need to know", then by all means do so and just deliver the information.

Powerful learning experiences rarely just happen in the classroom. Over time, we've come to recognize that consistently powerful learning experiences can be and should be "designed." They can and will occur with gratifying regularity if certain principles are followed. That is why, as educators committed to the SPEC approach, we now see ourselves much more as "architects of powerful learning experiences" than as deliverers of information. Leading EDGE is committed to providing high quality professional development on how to create a SPEC learning environment. Please feel free to contact us for more information.

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