Process Education is an educational philosophy that focuses on the development of broad, transferable learning skills. It has evolved over the course of ten years, supported by research done by college and university faculty from a wide range of disciplines across the country. Implementation of this philosophy means using processes and tools to create new types of environments in which students take center stage and discover how to improve their learning and self-assessment skills within a discipline. This philosophy also supports the current institutional reform movement that calls for a shift in emphasis from an agenda driven by teachers’ desires and designs to one focused on students’ needs. It consistently seeks answers to the question, “How do students learn most effectively and enduringly?” and then works to translate the answer into teaching practice and, ultimately, institutional policy. This module analyzes this transformational movement, defines the cornerstones of Process Education, and presents its underlying principles so that individual faculty members, as well as departments, divisions, and school administrators, can understand the philosophy and explore its potential for their institutions.

**Context for Process Education**

Over the last half-century, as our economy has shifted from a regional, manufacturing base to a global, information base, institutions of higher education have been faced with significant new challenges. Some of these challenges relate to changing student demographics. For example, there is a greater diversity among students today, including greater numbers of nontraditional students, many of whom have part-time or full-time jobs as well as family responsibilities. There are now many students entering higher education who are not adequately prepared to succeed in college-level courses. Other challenges relate to the accelerating rate at which knowledge is added to academic disciplines, preventing comprehensive presentation and mastery within a four-year span. Furthermore, the changing world of work demands that college graduates be both technically skilled and broadly educated so that they can readily construct and apply new knowledge that is yet to be discovered. Reflecting on these challenges, Peter Drucker (1992) noted that “it is a safe prediction that in the next fifty years schools and universities will change more and more drastically than they have since they assumed their present form 300 years ago when they organized themselves around the printed book.”

During the last decade, a series of change processes have occurred on hundreds of campuses to respond to these challenges. They include the following:

- Creating a culture of student-centered learning (Barr & Tagg, 1995)
- Accepting responsibility for teaching skills as well as content (SCANS, 1991)
- Broadening the diversity of learners served (Rosser, 2000)
- Restructuring dialogue in the classroom (Johnson, Johnson, & Smith, 1998)
- Expanding the temporal and spatial boundaries of the classroom (Batson & Bass, 1996)
- Continuously improving student learning outcomes (Huba & Freed, 2000)
- Aligning institutional, program, and course systems (Boyer Commission, 1998)

Schools at all levels are taking these actions to transform themselves into high-performance organizations with a focus on a new set of competencies (information processing, resource management, systems thinking, and technology) and basic skills (communication skills, teamwork skills, thinking skills, and personal qualities). With new accreditation criteria, institutional success is now measured by the quality of student learning produced. This theme is introduced in 1.5.2 Methodology for Designing a Program Assessment System. As more active learning approaches are adopted, schools are investing in learning environments that better support discovery and construction of knowledge beyond the transfer of disciplinary content. This focus is summarized in 3.1.1 Overview of Quality Learning Environments.

Perhaps the most significant change underway is in the educational philosophy of individual faculty members as they move away from the traditional teacher-centered “instruction paradigm” and begin to explore a student-centered “learning paradigm.”
What is Process Education?

Process Education is an educational philosophy that focuses on improving students’ learning skills in the cognitive, social, affective and psychomotor domains, with the ultimate goal of creating self-growers. Learning skills are aptitudes, abilities, and techniques used to acquire new knowledge and skills. These skills are distinct from disciplinary content. They are associated with particular process areas, e.g., the construction of understanding, problem solving, and both personal development and interpersonal development; skills in these areas can be developed to progressively higher levels of performance. Self-growers demonstrate a high level of performance across a spectrum of learning skills, continually growing their capabilities by using strong self-assessment to enrich and enhance their future performance. While self-growers can usually cite many significant mentors in their lives, they are not dependent on mentors for ongoing personal development.

Principles of Process Education

The principles of Process Education outlined in Table 1 offer a vision for quality learning and teaching. They are based on a belief that students’ potential for learning is in no way based upon their developmental position. This premise is underscored by Principles 1 and 2. Taken together, the principles suggest new roles and responsibilities for teachers and learners that differ from traditional practice. These relate to four broad areas of faculty performance:

- Assessment (Principles 3 and 4)
- Facilitation (Principles 5, 6, and 7)
- Mentoring (Principles 7 and 8)
- Curriculum improvement (Principles 9 and 10)

Assessment is the process of measuring and analyzing a performance or product to provide feedback that can help improve future performance or products. 4.1.1 Overview of Assessment presents assessment as a powerful tool for focusing attention on learning skills. Facilitation is the set of thoughtful and appropriate actions associated with a learning activity taken to ensure that individuals and groups best meet the criteria set out for the activity. 3.2.1 Overview of Facilitation presents guidelines for becoming a quality facilitator. Mentoring provides support and challenge to learners so that they experience personal growth in addition to acquiring new knowledge. 4.2.1 Overview of Mentoring and the Personal Development Methodology (4.2.3) contain many insights for mentors. Curriculum design at the program, course, and activity level helps to reinforce intended personal development.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Process Education Principles</th>
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<tr>
<td>1. Every learner can learn to learn better, regardless of current level of achievement; one’s potential is not limited by current ability.</td>
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<td>2. Although everyone requires help with learning at times, the goal is to become a capable, self-sufficient, lifelong learner.</td>
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<td>3. An empowered learner is one who uses learning processes and self-assessment to improve future performance.</td>
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<td>4. Educators should assess students regularly by measuring accomplishments, modeling assessment processes, providing timely feedback, and helping students improve their self-assessment skills.</td>
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<td>5. Faculty must accept fully the responsibility for facilitating student success.</td>
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<tr>
<td>6. To develop expertise in a discipline, a learner must develop a specific knowledge base in that field, but also acquire generic, lifelong learning skills that relate to all disciplines.</td>
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<td>7. In a quality learning environment, facilitators of learning (teachers) focus on improving specific learning skills through timely, appropriate, and constructive interventions.</td>
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<td>8. Mentors use specific methodologies that model the steps or activities they expect students to use in achieving their own learning goals.</td>
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<td>9. An educational institution can continually improve its effectiveness in producing stronger learning outcomes in several ways:</td>
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<tr>
<td>• By aligning institutional, course, and program objectives</td>
<td></td>
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<td>• By investing in faculty development, curricular innovation, and design of performance measures</td>
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<td>• By embracing an assessment culture</td>
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<tr>
<td>10. A process educator can continuously improve the concepts, processes, and tools used by doing active observation and research in the classroom.</td>
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Implementation of Process Education

There is no one way to implement Process Education. Instead, each teacher must customize an approach, drawing from a diverse set of concepts, processes, tools, and techniques to find those most suited to his or her instructional context and objectives. The module 2.3.2 Framework for Implementing Process Education serves as a pathfinder to many of these. Elements from the knowledge table are valuable in a broad range of teaching and learning activities including:

- Clearly defining and articulating course goals that can be supported by measurable learning outcomes
- Creating challenging, student-centered learning environments that promote high levels of performance
- Enhancing students’ learning skills in all domains (cognitive, social, affective, and psychomotor) by creating and using active, cooperative learning activities
- Checking on the effectiveness of those situations by engaging students in self-assessments that provide useful feedback for improvement
- Designing course assessment systems (separate and distinct from course evaluations) that are timely, systematic, and effective in helping students identify strengths and areas for improvement
- Using these assessments to help students achieve higher-level performance in future learning situations
- Investing in faculty and staff development activities that support continuous improvement of key professional activities essential to institutional effectiveness: teaching, learning, mentoring, curriculum design, assessment, advising, and educational administration

Faculty who choose to adapt a Process Education approach face significant challenges in how they perceive their relationship to students, in how they design courses and prepare materials, and in how they assess and evaluate the effectiveness of their instruction. For instance, they must illustrate respect for students’ learning potential and challenge them to perform at an optimal level. They must allow students more ownership of their learning and learn to assess more and evaluate less. They must revamp the classroom environment, recognizing the need to solicit student buy-in for the alternative teaching/learning methods and conventions they will employ. In terms of course design, interested faculty must commit to a disciplined system of writing measurable learning outcomes that are tied to clear performance criteria. Both
elements need to be correlated to an evaluation system that reflects upon and incorporates them. Within their courses, faculty must be willing to redesign activities for greater effectiveness, as well as provide timely interventions to assist student learning. They must also regularly check the effectiveness of their instruction through appropriate assessments. Similarly, they need to provide opportunities for students to assess their own performance, and then review those assessments to give students the clarity and insight they seek. Finally, they must thoughtfully design performance measures for their instructional programs to ensure that objectives are truly being met and evidenced through systematic data collection.

Concluding Thoughts

Process Education responds to a societal need for students to be well prepared to apply their expertise and to be self-directed learners, capable of learning new concepts and abilities on their own, no matter what type of challenging situations they encounter. Faculty and graduate students, in turn, can no longer rely on discipline-specific expertise to fulfill their teaching obligations. For these individuals, there is a growing need to develop skill in the “second discipline” of educating students with the kind of learning that can sustain them in and outside of the classroom. The new scholarship of teaching “requires a kind of ‘going meta’ in which faculty frame and systematically investigate questions related to student learning: the conditions under which it occurs, what it looks like, and how to deepen it” (Hutchings & Schulman, 1999). Important questions for classroom research include:

• How much time should be dedicated to skill development versus content?
• How can I measure added value from different class activities and courses?
• What impact does my teaching style have on student learning?
• When should students be held accountable for skills learned in other classes?
• What is the proper balance between assessment and evaluation?

The modules in the Faculty Guidebook are offered as a framework for obtaining answers to questions about teaching and learning. Readers will find that self-assessment is a key ingredient in the inquiry process and that thoughtful attention to “process” when implementing solutions can make a profound difference in their professional development, as well as in the growth of their students.

References


