25 Years of Process Education

*Commemorating 25 Years of Scholarship in Process Education
and the 10th Anniversary of the Academy of Process Educators*

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Abstract

Pacific Crest defined Process Education and worked to communicate the potential it offered for improving teaching and learning. This effort, in tandem with the work of a community of professional practitioners, has advanced the scholarship of Process Education, including the foundational concepts of learning to learn and self-growth, to the degree that they have had a noteworthy impact on the culture and practices of higher education over the last 25 years. This article provides a review and analysis of the body of Process Education scholarship and research, as well as a selective overview of Process Education practices across different educational contexts. In addition, two different organizational schema are offered to help the reader appreciate the key areas of Process Education and their interrelatedness.

Introduction

As of this writing, Process Education (PE) has been around for 25 years. If it were a person, we would expect to see it making its own way in the world — standing on its own two feet, as it were — in contexts that no longer necessarily involve those who brought it into being. And so it is. The life and growth of this philosophical approach to education consists of various stages of growth, important milestones, and noteworthy contributions and achievements. And as it has grown and evolved in clarity, organization and utility, its impact upon higher education has only increased.

Over the last 25 years more than 50,000 faculty, staff, and administrators have been exposed to the principles and practices of Process Education, largely through professional development and scholarly efforts. While there is no way to accurately tally those who have adopted even some of what Process Education offers, a diverse community of serious practitioners has evolved over time.

The genesis of this group began with a series of conferences entitled *Problem Solving Across the Curriculum* (1990–1996) and the community grew between 1999 and 2002 and became more coherent as a result of a major scholarship effort (*The Faculty Guidebook*: 2003–2007), eventually culminating in the Academy of Process Educators (2007 to present). This group is not definitive; there are Process Educators who are not members of the Academy and, thanks to the "stickiness" of many of the ideas in Process Education — that they have import, attraction, and utility that are obvious to many educators — there are surely individuals who could be termed "Process Educators" who may well have never heard the term *Process Education.*

What follows is the story of Process Education as seen, understood, and experienced by those in its community of professional practice. We believe it provides convincing evidence that the adoption of the values, principles, and practices of Process Education by educational leaders at every level significantly enhances educational outcomes. We know that resources in higher education are always constrained but it is our hope that this evidence will enable Process Educators to receive the support they deserve while facilitating their endeavors to share what Process Educators have to offer their peers.

The 25 years behind Process Education were busy ones; there was much innovation, many lessons learned, and a great many discoveries. The sheer magnitude of available

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scholarship necessitates that we offer more than a linear "birth to adulthood" story for PE philosophy. In fact, there are two different organizers for the body of scholarship offered in this article:

Content Outline (Table 1): The major areas of Process Education are organized into six major categories (Learner Development, Cultural Transformation, Assessment, Educator Advancement, Curriculum Design, and a Case Study), each of which is then subdivided to provide necessary detail. This article is structured after this content outline. The article itself consists of approximately 30 related but differentiable areas of research and/or practice, each offered chronologically within the category. While Table 1 does order content within each category in a chronological way, there is a Timeline Organizer available online that provides an overall timeline for the development of each of the sections in this article, as well as each pertinent item of scholarship associated with that section. The online version of this organizer (www.processeducation.org/ijpe/25/timeline) is interactive and offers a vast majority of the linked publications themselves for reading and review.

Pictorial Representation (Figure 1): This graphic defines all major areas of Process Education and, through color-coding and placement, shows the interrelatedness between the areas. It works well as a navigator of the content of this article for the online version (there, each section is color-coded at the top: www.processeducation.org/ijpe/25/image).

By separating the different threads, we are able to trace individually small but cumulatively powerful narratives:

- How the Learning Process Methodology (LPM) evolved in its relationship with learning to learn

- How the concept and practice of assessment evolved and were clearly differentiated from those of evaluation, providing a conduit to the concepts and practices of self-assessment and self-growth

- How systematic design and assessment of curricula at program, course, and activity levels can ensure that intended learning outcomes and performance expectations are achieved at all levels

- How learning to learn can be systematically integrated into a curriculum by focusing on growing a set of transferable learning skills while learners actively construct knowledge

- How methodologies were identified as the ideal models for learner processes such as reading, writing, teaming, personal development, and problem solving, as well as faculty processes such as design, assessment, facilitation, mentoring, and evaluation

- How learning communities and teams support learning and growth by integrating mentoring and peer support systems

- How Process Education led to the Transformation of Education and the concept of a Culture of Success because of the central concept of a growth mindset developed in a quality learning environment

Table 1 Content Outline for this Article

1. **Learner Development**
   a. Learning to Learn (1990)
   b. Self-Growth / Growth Mindset (1992)
   c. Foundations of Learning Course (1992)
   d. Accelerator Model (1993)
   e. Learning to Learn Camps (1995)
   f. Performance Model (2007)

2. **Cultural Transformation**
   a. Learning Communities (1991)
   b. Process Education Philosophy (1993)
   c. Creating a Quality Learning Environment (1994)
   d. Culture of Success (2007)

3. **Assessment**
   a. Assessment vs. Evaluation (1991)
   b. Self-Assessment (1992)
   c. Reflection / Meta-cognition (1997)
   d. Performance Criteria (1997)
   e. Performance Measures (1997)

4. **Educator Advancement**
   a. Professional Development (1991)
   b. Facilitation (1998)
   c. Mentoring (2000)
   d. Research-Based Best Practices (1990-2015)

5. **Curriculum Design**
   a. Learning Process Methodology (1990)
   b. Methodologies (1990)
   c. Problem Solving (1990)
   d. Activity Books (1990)
   e. Classification of Learning Skills (1992)
   f. Role of Technology (1990)
   g. Activity Design Process (1995)
   h. Course Design Process (1998)

6. **Case Study**
   a. Academy of Process Educators

Figure 1 Pictorial Representation of the Major Areas of Process Education

LEARNING TO LEARN CAMP — A five-day intensive experience that models how every student can become a successful collegiate learner through **LEARNING HOW TO LEARN** and developing a **GROWTH** mindset.

PROGRAM (multiple courses)

PROGRAM ASSESSMENT — To ensure that quality exceeds standards with systematic feedback to improve quality

COURSE ASSESSMENT — To ensure that the targeted outcomes of the course are successfully met and improved

PROGRAM DESIGN — Crafted to meet the knowledge, skills, and ways of being for a profile of a professional graduating from the program

COURSE DESIGN — METHODICAL process for creating a high-quality course so learners achieve identified **LEARNING** and **GROWTH** goals

ACTIVITY ASSESSMENT — To ensure that targeted outcomes are met and improved

ACTIVITY DESIGN — METHODICAL process for constructing **LEARNING EXPERIENCES** that support **THE LEARNING CYCLE** so learners can meet the **PERFORMANCE CRITERIA**

LEARNING ACTIVITY

REFLECTION — Process used to increase the awareness a learner has about how/she thinks and learns; a **reflective practitioner** works to increase **metacognitive awareness** and strives to understand his/her own behavior, decisions, and thinking

FACILITATION, MENTORING
- Creates a **QUALITY LEARNING ENVIRONMENT**
- Facilitates learning using **LEARNING ACTIVITIES**
- Optimizes performance by using **facilitation plans**
- Supports the **LEARNING PROCESS METHODOLOGY**
- Improves performance through **PROFESSIONAL DEVELOPMENT**
- Practice is informed by **RESEARCH-BASED BEST PRACTICES**

PROFESSIONAL DEVELOPMENT   PD — Transformational learning experiences with the goal of improving **FACILITATION** skills and elevating practice for increased **LEARNING** and **GROWTH** both in the classroom and as a professional

PERFORMANCE CRITERIA   PC — Statements describing the most important aspects of the target **PERFORMANCE** (i.e., what it should look like); these form the basis for **PERFORMANCE MEASURES**.

PERFORMANCE MEASURES   PM — These are based on **PERFORMANCE CRITERIA** and allow one to gauge (measure) the level of success or quality of a **PERFORMANCE**. This data forms the basis for high-quality **ASSESSMENT** and **EVALUATION**.

ASSESSMENT & SELF-ASSESSMENT   SII
- Feedback with the goal of improving **PERFORMANCE**
- Format: **S**trengths, Areas for **I**mprovement, **I**nsights
- Focusing an **ASSESSMENT** on one's self (**SELF-ASSESSMENT**) improves **PERFORMANCE** and increases **GROWTH**

ASSESSMENT vs EVALUATION
ASSESS to improve **PERFORMANCE**
EVALUATE to judge or grade **PERFORMANCE**

LEARNING EXPERIENCES & CURRICULA — Includes Activity Books, Classroom Activities, Learning Systems, and Learning Objects **DESIGNED** and **FACILITATED** to implement and support the **LEARNING PROCESS METHODOLOGY** so learners are able to exceed the stated learning objectives and **PERFORMANCE CRITERIA**

PERFORMANCE — Any **PERFORMANCE** (completed **PROCESS**) can be **MEASURED**, improved through **ASSESSMENT**, enhanced through challenge (e.g., by using the **ACCELERATOR MODEL**), analyzed by its parts:

PERFORMANCE MODEL — **PERFORMANCE** components: learner *identity*, **LEARNING SKILLS** used, *knowledge* needed, performance *context*, *personal factors* (individual variables), *fixed factors* (permanent variables)

PROBLEM SOLVING — **PROBLEM SOLVING** is application of the knowledge gained through the **LEARNING PROCESS**

GROWTH / SELF-GROWERS — **GROWTH** is the increase in capacity resulting from quality **MENTORING**. **SELF-GROWERS** use **SELF-ASSESSMENT** to **SELF-MENTOR** their own **GROWTH**

COLLABORATION / LEARNING COMMUNITIES — Learning together collaboratively or cooperatively (with team roles) and practicing peer **ASSESSMENT**:
- in a classroom
- at a **LEARNING TO LEARN CAMP**
- in a **PROFESSIONAL LEARNING COMMUNITY**

PROCESS EDUCATION   PE — Learning is not a product, but a **PROCESS** with **SELF-GROWTH** of the learner as the goal

METHODOLOGIES
- The methods, guidelines, and **best practices** of **PROCESS** knowledge are described in **METHODOLOGIES**
- **METHODOLOGIES** can be used to learn how to do something
- Learners who use **METHODOLOGIES** increase their **PERFORMANCE**
- **METHODOLOGIES** provide structure for **ASSESSING** use of that **PROCESS**

LEARNING PROCESS METHODOLOGY "THE LEARNING CYCLE"   LPM
STAGE 1 Preparing to Learn (learning objectives, **PERFORMANCE CRITERIA**)
STAGE 2 Learning **PERFORMANCE** (analyzing models, critical thinking, application, and problem solving) using **LEARNING SKILLS**
STAGE 3 **ASSESSMENT** of learning **PERFORMANCE**

LEARNING SKILLS   CLS — Generic and transferable skills that lead directly to improved learning. Classified in the cognitive, social, and affective domains in the **Classification of Learning Skills**.

ACCELERATOR MODEL — Informed by **LEARNING SKILLS**, aspects of the **LEARNING PROCESS METHODOLOGY** can be tweaked to increase the challenge and thus the learning and **GROWTH** of learners

LEARNING TO LEARN   L2L — We can **LEARN HOW TO LEARN** with the **LEARNING PROCESS METHODOLOGY** and can use it to increase our learning **PERFORMANCE**. Learner development is the **GROWTH** that comes from **LEARNING HOW TO LEARN**.

FOUNDATIONS OF LEARNING   FOL — Both an **ACTIVE LEARNING** course and **CURRICULA** introducing the topics shown here to help students **LEARN HOW TO LEARN** and become **SELF-GROWERS**

QUALITY LEARNING ENVIRONMENT — Produces respect, trust, openness, success and a **GROWTH-ORIENTED** mindset for everyone

CULTURE OF SUCCESS — Use of the **Transformation of Education** and **Compass of Higher Education** as strategic frameworks to foster **GROWTH** for learners, faculty, staff, and scholarship

COURSE

PROGRAM

- How the Theory of Performance, Forms and Levels of Knowledge, and the Classification of Learning Skills link learning theory with developing disciplinary practice by using performance criteria and performance measures

- How key tools, structures, and systems (e.g., the *Student Success Toolbox*, Foundations of Learning course, and performance measures) all play a role in increasing meta-cognition

Concluding Thoughts on the Vision of Process Education Research and Practices

Though the learning sciences ("interdisciplinary empirical investigation of learning as it exists in real-world settings and… how learning may be facilitated both with and without technology"; ISLS, 2015) are in their infancy, the broad outlines of how people learn are fairly well-developed. Much work needs to be done, and will need to be expanded upon as the learning sciences advance in order to realize the benefits of learning science with respect to actual curriculum design, assessment, learner development, educator advancement, cultural development, and change process. We believe strongly that this means connecting scholarship of the learning sciences with the scholarship of Process Education. We also feel that in order to take full advantage of what the learning sciences have to offer, education at all levels, from primary to post-graduate, will need to experience a cultural transformation. The Academy of Process Educators already sees the need for this cultural change; this is evident in the scholarship of Process Education and especially the work done (and in-progress) that focuses on the Transformation of Education. Process Education is a philosophy and mindset that is wholly amenable to what the learning sciences will teach us. The role of the Academy of Process Educators is a critical one as we move forward into this promising future; these educators will continue to produce scholarship that crosses and connects disciplines, drawing Process Education into contexts and applications that are yet unknown. It is their work to promote the ways in which the necessary cultural transformation can occur and to mentor faculty and staff in engaging in the research and implementing the best practices that emerge as a result of that research.

On a final note, the authors would like to highlight the ten most important things we learned from engaging in this extended review of the first 25 years of Process Education.

1. At the heart of Process Education and its philosophy and principles is the idea of empowering learners, faculty, and staff by building a culture which values and practices learning to learn, self-growth, and the ownership of one's own learning.

2. The cornerstone of Process Education scholarship was modeling the learning process with the Learning Process Methodology (one could then learn how to learn) and then connecting it with the practice of assessment, allowing individuals to improve their ability to learn (self-growth).

3. The Academy of Process Educators focuses on generating research-based evidence, modeling quality implementation of the Process Education philosophy, and mentoring faculty and staff in their work to create a learning to learn culture.

4. Scholarship on the Transformation of Education illustrates how extensive the gap is between current values, mindsets, and practices and those of a culture of success in which learning to learn, assessment/self-assessment, and self-growth become pervasive.

5. In order to move towards a Process Education culture and empowerment of all, an institution should develop and publish its institutional educational philosophy so that its faculty, staff, and students can move in this direction with the support of the institution.

6. For each area of Process Education scholarship that is integrated into practice, student learning improves. Furthermore, due to the holistic nature of Process Education, when multiple areas of Process Education scholarship are embraced and integrated into practice, the impact is synergistic with respect to learning, growth, and student success.

7. Process Education is a way of living; its principles apply to every facet of life. It is also a journey rather than a destination, and once begun, never really ends, but continually increases the quality of life.

8. Since Process Education is a performance-based philosophy, the clarification of expectations—accomplished by sharing performance criteria with learners and educators and using performance measures—make it possible for everyone to excel because they can then assess and improve their own performance.

9. If an institution claims that it produces graduates who are life-long learners and future contributors to society, then that institution is morally obligated to facilitate this transformation in the students it admits. Process Education tells us that this kind of transformation is possible; to admit a student and yet not help them acquire the tools that make their success possible is simply unacceptable.

Reference

International Society of the Learning Sciences (ISLS). (2015). Available at: www.isls.org