

Work in Progress - Process Education: Growing Performance across Domains

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Abstract - Learning is a fundamental human activity that occurs throughout life. Growth is inherent in each and every individual; with it comes more empowerment. Education and educational systems are constructed to support learning and growth. Process Education™ is a performance-based philosophy of education which integrates many different educational theories, processes, and tools in emphasizing the continuous development of learning skills through the use of assessment principles in order to produce learner self-development. Process Education principles enhance and accelerate the learning and growth processes. The innovative philosophy and practice of Process Education have demonstrated significant success in the educational domain and in other professional and personal domains. We are investigating the depth and breadth of achievement of Process Educational philosophy and practice across multiple domains and will analyze future directions.

Index Terms – Process Education, Learning, Assessment, Growing Performance

INTRODUCTION

Learning occurs throughout life as a fundamental human activity that usually contributes to growth in each individual. Growth often leads to empowerment that is an inherent goal of many. Many educational philosophies, pedagogies, and systems have been constructed to establish, facilitate, and support learning and growth [1][2]. Process Education™ (PE) is a performance-based philosophy of education which integrates many different educational theories, processes, and tools in emphasizing the continuous development of learning skills through the use of assessment principles in order to produce learner self-development [3]. PE principles enhance and accelerate the learning and growth processes. The innovative philosophy and practice of PE have demonstrated significant success in the educational domain and in other professional and personal domains. Many institutions, hundreds of faculty members, and thousands of students have been affected by the practice of this philosophy. PE principles have widespread applicability and can be extended to other than academic domains.

PROCESS EDUCATION EVOLUTION

There have been several critical milestones in the evolution of Process Education. The first occurred in 1985 with the

observation that learning of new software products was most rapid when learners were expected to quickly use the software application. By putting the novice in a performance mode rather than the expert in demonstration mode, a learner-centered ownership required them to be in control, thinking and responding to challenges, thus convincing themselves that they could learn the software. A support application that provoked critical thinking and later included self-assessment enabled meta-cognition by the students. This enabled them to be self-learners and improve future learning performance. The second was in a series of workshops for faculty teaching effectiveness circa 1985-86. Although the workshops were given high reviews by participants, a follow-up with institutions later indicated little had changed in the practice of teaching or learning. This resulted in a fundamental shift in the nature of workshops to produce outcomes focused on behaviors and transformational education. Follow-up saw significant improvement in the next two years. The next experience circa 1989-90 tested the hypothesis of learner growth from freshmen to senior year. In twenty-two colleges covering a wide demographic spectrum, there was little change in learner performance demonstrated over the four year undergraduate experience. In 1990, a learning process methodology was articulated that included a process for constructing knowledge [4]. In a Teaching Institute in 1992, the fundamental question of what skills do students need to learn more effectively was asked. The answer was discussed in a publication [5], and that book was subsequently expanded to two others [6][7].

In 1994, the first fundamental articulation of the underlying ideas of this philosophy was published in a paper "Education as a Process" in the International Teaching Effectiveness Conference at the University of Maryland [8]. In 1995, the first Learning to Learn Camp was facilitated that resulted in a methodology for assessing learning performance and the use of the Learning Process Methodology. The first edition of Foundations of Learning followed in 1996 that included the Classification of Learning Skills and the Personal Development Methodology with a discussion of how you produce growth. In 2002, Steve Beyerlein began the Faculty Guidebook Project that articulates in a systematic way the research behind Process Education. It has been continually updated [9]. The PE philosophy has been graphically summarized in The Compass of Higher Education published in 2007.

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The inter-related nature of PE is illustrated by the graphic below that demonstrates the different but mutually supportive roles of learners, teachers, and organizations (administrators and staff) in enriched learning environments.

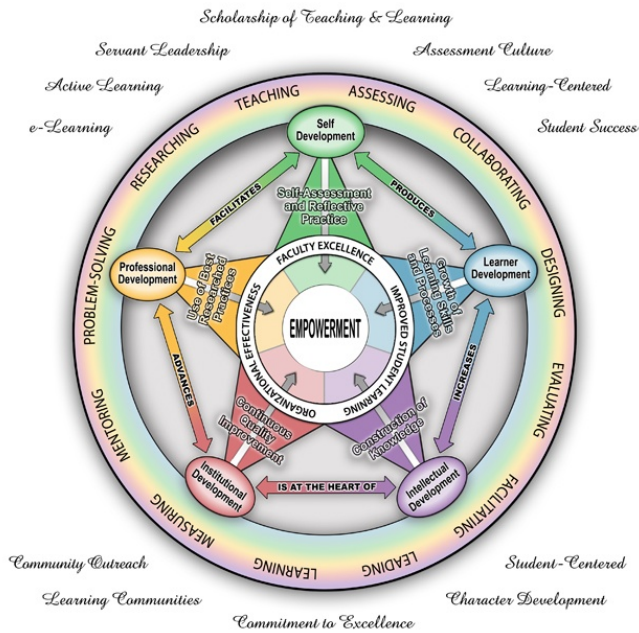


FIGURE 1
The Compass of Higher Education [10]

- 1) Intellectual Development: If teaching is the quality facilitation of learning at higher levels that increases the construction of knowledge, then increasing quality teaching, learning, thinking and researching will strengthen Intellectual Development.
- 2) Learner Development: Strengthened knowledge with improved mentoring enhances growth of key transferable skills such as critical thinking, communication and teamwork and increases the effectiveness of Learner Development.
- 3) Self-Development: Individuals learn to self-mentor their own growth through self-assessment and reflection that further enhances Self-Development.
- 4) Professional Development: Individuals who embrace best researched practices in their educational and other professional functions continue growth that inspires expansion into new areas leading to Professional Development.
- 5) Institutional Development: Empowered teachers and learners can support institutions that must be receptive to change and employ continuous quality improvement to increase Institutional Development. Strong institutions can provide environments that enable more intellectual development to continue the cycle.

FUTURE WORK

Growing performance through learner engagement and empowerment is dynamic and evolutionary. It must continually adapt to new generations and the continued rapid advance of informational technology. Critical thinking and problem solving continue to occupy a central position in education particularly in Science, Technology, Engineering, and Mathematics (STEM). The globalization of economies and professions, coupled with the rate of change of basic knowledge in most STEM disciplines, underlines the need for life-long learning and self-growers. Process Education and its principles have been documented in many references particularly related to teacher-learner in academic environments [3]-[10]. There are however many experiences in other contexts where PE principles can contribute to growing performance. We are researching the professional and personal experiences of PE practitioners in multiple domains and will present the current state of our work.

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We wish to thank the many colleagues and contributors to Process Education over the past two decades whose work is generally summarized in the references.

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