

## PARADIGM SHIFT IN PEDAGOGY: THE CHALLENGE OF CREATING LEARNING COMMUNITIES

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### ABSTRACT

This paper argues that a paradigm shift in pedagogy is necessary since the world in which we live has changed dramatically from the age of industrialization to the age of information. The model for the classrooms of the information age, it is argued, should be that of the learning community. The rationale for this model is discussed citing research evidence that supports it. A major problem, it is pointed out, is that the schools and higher education institutions have for the most part not kept pace with the change. The paper focuses on the challenges of creating learning communities as part of the paradigm shift. It examines the characteristics and the qualities that should be part of creating learning communities. The contrast between the old paradigm and the new paradigm is clearly made and how the new paradigm makes more sense. Suggestions to deal with the difficulties of making changes and implementing the learning communities are also discussed.

Keywords: Learning community, active learning, new model of pedagogy, and paradigm shift in pedagogy

### INTRODUCTION

A biology instructor was experimenting with collaborative methods of instruction in his beginning biology classes. One day his dean came for a site visit, slipping into the back of the room. The room was a hubbub of activity. Students were discussing material enthusiastically in small groups spread out across the room; the instructor

would observe each group for a few minutes, sometimes just nodding approval. After 15 minutes or so the dean approached the instructor and said, "I came today to do your evaluation. I'll come back another time when you're teaching" (Barr and Tagg, 1995 p.17).

### Understanding the changes

The story is reflective of the legacy of the classrooms of the industrial age. The traditional schools and classrooms that characterized the 19<sup>th</sup> and 20<sup>th</sup> century classrooms were designed to reflect the emerging industrial (factory) mode of organization. Toffler (1980) refers to this as a "Second Wave Civilization" to distinguish it from its predecessor, the agrarian, or "First Wave Civilization." In the schools of the Industrial Age, or Second Wave Civilization, administrators were viewed as "bosses," teachers as "workers," and students as "raw material." The work of teachers was to lecture, ask questions, and give directions that would "produce" students who could meet the vocational and citizenship needs of society. Students, as befitting of "raw material," were largely passive. The Second Wave institutions were characterized by reliance on standardization, synchronization, specialization, and centralization and valued bigness. Because the world in which we live has changed dramatically, the traditional approaches to pedagogy are inadequate to respond to the changes that have taken place. There is wide agreement that a paradigm shift in the pedagogy is needed in view of the changes that have taken place.

Kuhn (1962), to whom the idea of paradigm shift is attributed, refers to a paradigm as "a whole set of shared premises and values that determine the nature of scientific inquiry" (p.23). Some people use the word to refer to a model or pattern, like an accepted judicial decision in the common law or as an object for further articulation and specification under new and more stringent conditions. Kuhn also popularized the term "paradigm shift" to refer to the process by which large numbers of scientists change their shared premises and values. Have large numbers of educators changed their shared premises and values? Evidence from studies conducted in the United States (Goodlad, 1984) indicates that a

vast majority of schools are still functioning at the level of education developed for the Industrial Age, or Second Wave Civilization. These schools are engaged in the practice of what Grant (1993) calls "brain checking," a state of affairs in which students hardly have to think. Typical activities included such things as filling in the blanks and finding answers to questions by looking them up in a book. These types of questions or activities do not require any thinking on the part of students. Although some schools and colleges have changed, a vast majority of them continue to function in the way that Goodlad and others described schools in the United States in the 1980s. In higher education, things are no different either. In his book *The Learning Paradigm College*, John Tagg (2003) makes the point that the dominant paradigm in higher education institutions is that of the "instructional paradigm." The mission of higher education institutions is said to be that of providing instruction. Tagg says that the goals of the instructional paradigm approach run counter to the real mission of a higher education institution, namely, that of producing learning. The instructional paradigm approach, he says, misses the point. It is like saying that the mission of General Motors is to operate the assembly lines or that the purpose of medical care is to fill the hospital beds. The true mission of the higher education institutions, Tagg argues, is to produce learning in every student by whatever means work best. The theories and assumptions related to the two approaches provide a striking contrast (see Table 1 below).

### The learning community paradigm

The new paradigm can be said to be that of the learning community. The challenge of creating learning communities will be explored in this paper. In learning communities, teachers, students, support staff, parents, administrators, and others who are involved in the school are viewed as

members of a single community whose common purpose, for everyone, is learning. The learning in the classroom of the Information Age is defined not only as the acquisition of knowledge but also as the development of critical thinking skills and the ability to apply knowledge in varied situations. Emphasis is also placed not only on the acquisition

of information and skills but also on the understanding of their theoretical and research base. In such an atmosphere, *why* is often a more important question than *what*. It also means that the process of learning-how material is structured and presented in order to help students learn-is considered an important issue.

**Table 1.** Creating learning communities: old and new paradigms for college teaching

	Old paradigm	New paradigm
Knowledge	Transferred from faculty to students	Jointly constructed by students and faculty
Students	Passive vessel to be filled by faculty's knowledge	Active constructor, discoverer, transformer of knowledge
Mode of learning	Memorizing	Relating
Faculty purpose	Classify and sort students	Develop students' competencies and talents
Student growth, goals	Students strive to complete requirements, achieve certification within a discipline	Students strive to focus on continual lifelong learning within a broader system
Relationships	Impersonal relationship among students and between faculty and students	Personal transaction among students and between faculty and students
Context	Competitive, individualistic	Cooperative learning in classroom and cooperative teams among faculty
Climate	Conformity, cultural uniformity	Diversity and personal esteem; cultural diversity and commonality
Power	Faculty holds and exercises power, authority, and control	Students and empowered; power is shared among students and between students and faculty
Assessment	Norm-referenced (i.e., graded "on the curve"); typically use multiple-choice items; student rating of instruction at the end of the course	Criterion-referenced; typically use performances and portfolios; continual assessment of instruction
Ways of knowing	Logical-scientific	Narrative
Epistemology	Reductionist; facts and memorization	Constructivist; inquiry and invention
Technology use	Drill and practice; textbook substitute; chalk and talk substitute	Problem solving, communication, collaboration, information access, expression
Teaching assumption	Any expert can teach	Teaching is complex and requires considerable trainging

### Rationale for learning community classrooms

A number of justifications can be given for moving from the industrial age classrooms to the learning community classrooms. These are based on research and scholarship as well as the current reality of the world that we are part of.

1. Because we are members of an interdependent global economic and political community, it is essential to learn to live cooperatively with one another rather than to continue to engage in the kinds of destructive competition that produce hunger, disease, and war. The use of collective intelligence has become an imperative to deal with such global problems. Research conducted by Kagan (1990) found that children from rural parts of Mexico were more cooperative than their peers in urban settings. Further research be conducted on cooperation and competition among children in other parts of the world pointed to the conclusion that worldwide, regardless of continent or culture, children in urban settings were more competitive than their counterparts. Kagan began to explore ways to reverse this trend and found that using cooperative teams can help reduce competition.
2. Another source of scholarship comes from gender research that has been developed over the last 30 years. Accordingly, girls and women tend to preserve relationships and work better in groups. Gender researchers have developed instructional models based on classroom collaboration and cooperation rather than on competition. These are currently available for classroom use and are found to work well with both genders.
3. A third source that works as an antecedent to the paradigm shift in peda-

gogy comes from Vygotsky. Vygotsky (1978) developed the idea of constructivism, which asserts that knowledge resides in individuals, that knowledge cannot be transferred intact from the head of the teacher to the heads of the students. Using constructivism as a reference, teachers often use problem solving as a learning strategy, where learning is defined as adaptations made to fit the world they experience.

### Key characteristics of learning communities

The central idea in the paradigm shift appears to attend to certain processes and characteristics that are involved in creating learning communities. What is a learning community? The idea of a learning community calls for a fundamental change in the way in which we think about relationships among teachers, students, and administrators. The idea of learning community is contained in the writings of well-known thinkers at the turn of the 20<sup>th</sup> century such as John Dewey, George Herbert Mead, and Lev Vygotsky. These scholars have expounded in their numerous writings that learning and human developments are embedded in social and cultural context. John Dewey in particular made the point that we humans are born as utterly dependent creatures and that much we need as functioning adults can be acquired only through the mechanisms of social and cultural transmission. The only way in which we can learn is from fellow humans.

Furthermore, the need to learn never stops throughout our lifetimes. We are necessarily lifelong learners, and the experiences of learning are continuous and relational. Like Dewey, Lindeman (1926) equates education with life. According to him, education is "not merely preparation for an unknown kind of future living... The whole of life is learning, therefore education can have no endings. This new venture is called

adult education not because it is confined to adults but because adulthood, maturity, defines its limits..." (Lindeman, 1926, pp. 4-5). A consistent theme in the writings of these scholars has been that all thinking and learning are to be seen as embodied cognitions in social settings. As Vogel (1993) summarizes the idea of learning community, "The human mind and the sense of self must be understood as evolving out of the historical process of personal relationship formation between the self and other individuals. Upon close examination, one finds that the working of the mind and ways in which we perceive and understand ourselves is remarkably like the form of our personal relationships (Vogel, 1993, p.4, quoted in Baker, 1999)."

#### **A number of characteristics stand out in learning community classrooms**

*First, there is a sense of belonging to the community.* The learning community includes students, teachers, parents, administrators, support staff, volunteers, and other members of the broader community outside school. Relationships among all people are collaborative, and each individual perceives all others as both teachers and learners. In a learning community, each individual is valued: cultural and linguistic identity is affirmed by using what each person brings to school as the starting points and building blocks (McCaleb, 1994). The learning community gets its meaning from the common interest or goal they share, namely, to bring about learning.

*Second, the group is organized to learn as a whole system.* Group learning is as important as individual learning. The group learns as a whole team by having members share common assumptions, goals, information, and decisions. Members work together in collaborative tasks such as finding solutions to problems, collecting and analyzing data, setting priorities, making action plans, and celebrating the contributions and

achievements of everyone (Wood, 1992). There are some things that cannot be done by individuals alone. With groups working together, the collective intelligence can be used in dealing with complex problems.

*Third, everyone present in the school participates in this activity-oriented environment.* In learning community classrooms, students are engaged in all sorts of activities, such as interviewing older community members on a topic they are investigating, doing fieldwork that investigates the water or air quality in the environment, and so on. Principals, parents, teachers, and students often work collaboratively on joint projects (McCaleb, 1994).

*Fourth, all members of the group are learners.* In a learning community, everyone is given opportunities to be and is expected to be a fully engaged learner. All members are considered to be participants in the learning community, and part of the meaning of participation is the willingness to learn and the opportunity to teach others. In this sense, everyone is a teacher and a learner.

#### **Creating learning communities : attending to qualities**

Creating learning communities involves much more than setting up some activities in the classroom. Certain qualities should accompany various processes that are at work in learning community classrooms. Baker (1999) identified six characteristics that I found helpful in understanding the nature of learning community classrooms.

1. *Communication and the power of dialogue.* Using Martin Buber's idea of "I – Thou" relationship, Baker explains the importance of personal communication. "I – Thou" relationship is contrasted with "I – It" relationship. In "I – It" relationship, a subject-object relationship is maintained. It is thought of as a state of affairs in which one knows and uses the other person

without allowing them to exist. In contrast, the "I – Thou" relationship allows a type of communication that would allow for discovery, new understanding, insight, and sensitivity to participants. I – Thou relationship may occur when one meets the other as fully acknowledged person and the other responds in like fashion.

2. *Mutuality*. In the characteristic that is described as mutuality, one is open and receptive to 'the ideas of others. As Baker (1999) explains, "In relationship of mutuality, there is genuine commitment to know the other person by 'experiencing the other side,' such mutuality requires willingness to explore issues that are important to other people, active listening, and the capacity to grasp the correctness of others' experiences" (p.100).

3. *Mindful engagements*. In mindful engagement, "rousing of the mind to life" can occur. It is described as a process in which participants relate to one another with honesty, energy, and alertness to the situation. Vigosky (1978) described mindful engagement as a social situation created by the teacher that is capable of "rousing the mind to life."

4. *Double-loop learning*. In double-loop learning, more of the thinking process is involved, and issues are examined in their complexity. In single-loop learning, one asks, "What am I supposed to do?" In single-loop learning the question is, "What does the boss want, and what do I do to please the boss?" But in double-loop learning, a new level of dialogue is encouraged. Double-loop learning asks, "Why should I (or anyone else) do this in the first place?" (Baker, 1999, p. 101).

5. *Zone of proximal development*. The zone of proximal development (ZPD) is an idea developed by Vygotsky, which draws attention to the importance of understanding and working at the level and with the talents that students bring with them to the classroom. Vygotsky (1978) discovered that children and people at all age levels have two levels of development: actual and

potential. These two levels define the boundaries on the ZPD. Good teachers know how to work inside the ZPD through continuous interaction that tests the capacity to move the zone toward new potential for learning (Baker, 1999, p.101-102).

6. *Dialectic between structure and freedom*. The dialectic between structure and freedom is another characteristic that needs to be attended to in a learning community. Both are essential, in that one without the other would make the creation of learning communities difficult. There has to be a balance between structure and freedom. In learning communities, participants honor the freedom of individual members while they simultaneously insist on the members honoring the necessary structure of the group.

The processes and outcomes that are attributed to the learning experiences in learning community classrooms are summarized in Table 2.

### Implementing changes: confronting the challenges

Some schools and colleges are already implementing the ideas of learning community classrooms. However, vast majority of schools and colleges are still functioning at the traditional industrial mode of pedagogy. Why then are these school systems, colleges, and universities not making the changes to create learning communities? There might be number of explanations for this:

1. One of these, in my view, is the failure to bring about systemic and coordinated change in the educational systems. Let me use an example from the United States to illustrate the point. After 1983, the idea of school-wide reform began in the United States, as evidenced in the effective school movement such as *accelerated* and *essential* school movements of the 1980s. The assumption was that we could fix one school at a time. When we came to the 1990s, late 1990s, and

**Table 2.** Indicators of significant learning experiences in a learning community classroom.**PROCESS:**

- **ENGAGED:** Students are engaged in their learning.
- **HIGH ENERGY:** Class has a high energy level.

**RESULTS/IMPACT/OUTCOMES:**

- **SIGNIFICANT and LASTING CHANGE:** Course results in significant changes in the students, changes that continue after the course is over and even after the student has graduated.
- **VALUE IN LIFE:** What the students learn has a high potential for being of value in their lives after the course is over. This might be in terms of enhancing their individual lives, preparing them to participate in multiple communities, and/or preparing them for the world of work.

then the 21<sup>st</sup> century, the idea of fixing one school at a time was abandoned. It was not affecting the entire educational system. The idea of systemic, coordinated educational changes at the local, district, and state levels were seen as critical to the success of any type of educational innovations (Fullan, 2001). Many educators now share the view that system-wide change is necessary. The challenge of creating learning communities can become a reality when it is taken up at the system-wide level.

2. Another problem might be that teachers are not prepared to create learning communities. They may not know how to do this. It appears that new generations of teachers are more prepared to make the paradigm shift, depending on the type of teacher education they receive. Professional development might be necessary to help teachers create learning community classrooms. It is important that professional development be combined with hand-on experience in the

classroom. It might be a good idea to work with a colleague who is successful with learning community classrooms. There must be system-wide learning centers that would offer training and hands-on experiences to practicing teachers.

3. Although a great deal of attention has been given to the nature of learning communities, a dimension often overlooked is the context of the learning communities. In addition to paying attention to the cultural and linguistic aspects of the community, it is important to understand students' and teachers' beliefs about teaching and learning. Teachers may know what a learning community is and how it works. Their belief system may work against what they know and are trying to accomplish. Sometimes it is difficult to change the belief systems. Studies related to changing stereotypes indicate how one's stereotypes can be changed. Some of techniques involve creating situations that confront one's stereotypes or belief systems.

4. Another issue might be that of modeling. Teachers tend to do things in the classroom in the way they have been taught. Good examples and models can help. Often the models of the industrial age are a major hindrance to creating learning community classrooms. Teacher preparation institutions will have a major role to play in this regard.

### Concluding thought

Today, many societies, in both developed and developing countries are grappling with the challenge of moving away from the traditional approaches to pedagogy toward a new and innovative one. We live in an age of immense opportunities and challenges. The world we are part of has changed dramatically. A corresponding change in our thinking about teaching and learning is needed. The learning paradigm approach of creating learning communities is a welcome change from the transfer of knowledge assumed in the Industrial Age, or Second Wave civilization. Insofar as it is focused on creating the environment and experiences that bring students to discover and construct knowledge for themselves, and also on helping students become part of a community of learners (Barr and Tagg, 1995), creating learning communities can also help everyone learn to live cooperatively with one another rather than continuing to engage in the kinds of destructive competition that produce hunger, disease, and war. It would also help one become a lifelong learner. A paradigm shift to learning community should be welcomed and supported by educational communities. I would like to end with a closing vignette taken from Barr and Tagg (1995):

"The quartz watch was invented by the Swiss. But great Swiss watchmakers responded to the idea of gearless timepieces in essentially the same way that the pre-

miere audience responded to Stravinsky's *The Rite of Spring*. They threw tomatoes. They hooted it off the stage. *The Rite of Spring* has become an old warhorse. Paradigm can even change quickly. Look at your watch (p.24)."

### REFERENCES

- Baker, P. J. 1999. Creating learning communities: The unfinished agenda. In B. A. Pescosólido and R. Amundande (eds.), *The Social Worlds of Higher Education*. Sage, Thousands Oaks, CA.
- Barr, R. B., and Tagg, J. 1995. From teaching to learning. *Change* 27:13-25.
- Campbell, W.E. and Smith, K.A. (eds) 1997. *New Paradigms for College Teaching*. Interaction Book Company, Edina, Minn..
- Fullan, M. 2001. *The New Meaning of Educational Change*. Teachers College Press, New York.
- Goodlad, J. I. 1984. *A Place Called School: Prospects for the Future*. McGraw-Hill, New York.
- Grant, G. 1993. Discovering how we really teach. In K. A. Strike and P. L. Ternasky (eds.), *Ethics for Professionals in Education*. Teachers College Press, New York.
- Kagan, S. 1990. The structural approach to cooperative learning. *Educational Leadership* 47: 12-15.
- Kuhn, T. 1962. *The Structure of Scientific Revolutions*. University of Chicago Press, Chicago.
- Lindeman, E. C. 1926. *The Meaning of Adult Education*. New Republic, New York. (Republished in 1961 by Harvest House.)
- McCaleb, S. P. 1994. *Building Communities of Learners: A Collaboration Among Teacher, Students, Families, and Community*. St. Martin's Press, New York.
- Tagg, J. 2003. *The Learning Paradigm College*. Anker, Boston.

- Toffler, A. 1980. *The Third Wave*. William Morrow, New York.
- Vygotsky, L. 1978. *Mind in Society: The Development of Higher Psychological Processes*. Harvard University Press, Cambridge, MA.
- Wood, G. H. 1992. *Schools that Work*. Penguin Books, New York.

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