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AUTHOR Parsons, Michael H.  
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## ABSTRACT

Recent shifts toward collaborative learning and learner-centered language indicates that: (1) student diversity is increasing; (2) delivery, interaction, and assessment must occur across an expanding range of contexts, cultures, and knowledge parameters; and (3) learners must be empowered to accept responsibility for their learning and also to collaborate with others in complicated, dynamic, and ambiguous settings. Bureaucratic inertia and a seemingly conflicted mission may oppose these shifts. The Hagerstown Community College (HCC) Technology/SCANS pilot program: (1) reassigns the locus of control for learning to the students; (2) re-energizes learners and instructors with intrinsic and extrinsic motivators; (3) actively engages learners in creating solutions that require managing conflict and creating collaboration among disparate groups; and (4) develops appropriate assessment methodology. A new HCC learning paradigm is emerging with the result that learners are becoming more independent, self-critical, and willing to reach beyond the classroom to create knowledge; are more willing to risk controversy and manage conflict to achieve a goal; are emerging as leaders in the work environment; and are more innovative in their ethical and theoretical approaches to educational, work, and social contexts. Further discussion, research, and the establishment of "best practices" are needed. (PGS)

**FACILITATING LEARNER-CENTERED INSTRUCTION:  
TECHNOLOGY, SIMULATION, AND SCANS**

ED 448 820

7th Annual Community College Showcase

Ocean City, Maryland

November 10, 2000

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Michael H. Parsons, Ed.D.  
Hagerstown Community College

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## **Introduction: The Transformation of American Higher Education**

Ten months of the first year of the 21st century have passed. What can we discern from them regarding the characteristics of the new millennium? There is a single, overwhelming factor emerging. Scholars, seers, and sages present a bewildering array of changes impacting all aspects of society. Change it seems is omnidirectional and ever present.

In the October 27, 2000, issue of **The Chronicle of Higher Education**, Arthur Levine, president of Teachers College, Columbia University, synthesizes the challenge. "What is the purpose of higher education? ...faced with a society in motion, we must not only ask that question again, but must actively pursue answers, if [higher education is] to retain...vitality in a dramatically different world."<sup>1</sup> His perspective is consistent with a series of critical elements that are challenging the roles and mission of colleges. The first is the increasing individualization of higher learning. Students are becoming ever more diverse, their reasons for participating in higher education are more personal, and their expectations are taking on different dimensions regarding both content and delivery. Second, faculty are being expected to be more independent of traditional instructional systems. Distance, asynchronous, and work-based learning are demanding a significant re-examination of work loads, intellectual rigor, and accountability. Finally, the learning environment is becoming

increasingly mobile. It is common to talk with students who are enrolling in two or more colleges simultaneously as well as receiving academic credit for training related to job responsibilities. How is higher education responding to these changes?

Levine, Burton R. Clark of UCLA, and the League for Innovation in the Community College are in agreement that the response must be a transition from a teaching emphasis to one of learning.<sup>2</sup> Levine summarizes the issue: "The focus will shift to the outcomes that [learners] achieve. Time will become the variable and learning the constant."<sup>3</sup> The transition has been characterized as the emergence of an emphasis on developing learning communities.

### **Engaging Change: The Learning Community Response**

The language of higher education is undergoing rapid modification. Collaborative learning, problem-based learning, learner-centered investigation, and inquiry-based learning pepper current literature. Three common themes provide a foundation for the transformation. In late 1999 the League for Innovation convened a focus group composed of representatives from 15 community colleges to arrive at a consensus regarding an appropriate response to the challenges of the 21st century.<sup>4</sup> Their findings are interesting.

First, the group reinforced the increasing diversity found in community college students. The challenge is greater need for seeking broader sources of information, engaging in opportunities for meaningful application of knowledge to practice, and ensuring that learning occurs both individually and in group settings. Of equal importance, learners must accept responsibility for their learning.

Second, the learning environment must become increasingly flexible. Delivery, interaction, and assessment must occur across an expanding range of contexts, cultures, and knowledge parameters. Further, learning must take on a broader focus including attitudes and value formation along with cognitive content. Finally, all learners need to become skilled in assessing the consequences of their learning.

Third, learners must become empowered. They need not only to accept responsibility for their learning but also to collaborate with others in complicated, dynamic, and ambiguous settings. Also, they must practice civility, empathy, and honesty in learning and work settings.

The foregoing themes of the learning community structure seem reasonable on first examination. However, they present a challenge to the

traditional mission of American higher education. There are three countervailing forces that must be overcome if the management of change is to be effective.

First, colleges retain their historic responsibility to sustain societal structure. The conceptual framework which comprises faculty's personal experience remains influential today. Support, temporal and financial, is essential to effect change. Yet, bureaucratic inertia is likely to resist the allocation of these resources to nontraditional streams without perceptual modification.

Second, the conflicting mission of higher education is visible, particularly in the community college. Work-based learning is applied and characterized as training. Theoretical learning is abstract and credit based. In the 21st century, learners need equal amounts of both along with meta-learning. The last emphasizes the skills and attitudes needed to become lifelong learners. The challenge is to blend all aspects of mission into a seamless web of knowledge acquisition and application.

Finally, virtually all colleges remain hierarchical and are beset by the tyranny of consensus. Curriculum committees, peer reviews, and departmental gestalts make it difficult to introduce and effect change. Institutions that make the commitment to manage change must empower faculty along with students to

establish "islands of innovation" that will introduce and assess new learning strategies.

Is there a design that will permit the emergence of the learning community concept while maintaining institutional integrity? Hagerstown Community College (HCC) has been engaged in a five-year pilot program that seems to have promise. What follows is a case study of the Technology/SCANS model.

### **The Dynamics of Implementing Change**

Hansen and Stephens designed a "four dynamics" model that provides insight into the processes needed to make the learning community concept operational.<sup>5</sup> The HCC program brings all aspects of the model into focus.

The first dynamic is student expectations. The researchers describe current behavior as "learned helplessness." The process is a collective pathology in that it requires less work on the part of the learner to achieve good grades and permits the instructor to remain in control, focusing on content rather than mastery. The Technology/SCANS model is designed to reassign the locus of control for learning. Students are formed into groups, assigned to a CD-ROM-based problem simulation, held accountable for data gathering and problem

solving within the simulated context, and assessed on the basis of their degree of mastery of SCANS skills.

The result of collaborative action and appraisal is twofold. First, the students accept responsibility for their learning and quickly discover that problems have multiple solutions. Second, the instructor becomes a facilitator, concentrating on sources of data and the process of learning rather than mere dissemination of information.

The second dynamic is interpersonal interaction. Too many learners demonstrate low tolerance for challenge. They avoid challenging tasks and are willing to settle for the "regression toward the mean syndrome" as long as the resultant grade is positive. Instructors are faced with the damoclean choice of a constant battle over standards or settling for mediocrity.

The Technology/SCANS strategy blends intrinsic and extrinsic motivators to re-energize learners. Since the inductive, problem-based CD-ROM strategy requires performance by all, there is a natural partnership between motivated students and the facilitating instructor. Together they "raise the bar of achievement" for all group members. The assessment process injects extrinsic motivation into the process. All groups deliver their solutions to the simulated problems to an outside group who role plays stakeholders in the problem

scenario. The resulting verisimilitude has increased student commitment and instructor enthusiasm.

The third dynamic is the environmental "dumbing down" of learning. While the world of higher education grows ever more diverse, students are increasingly less willing to confront issues of race, gender, age, sexual orientation, and the like. The lack of comfort and the fear of reprisal leads to a "playing it safe" mentality that makes higher education a pale reflection of the real world. Instructors go along by presenting abstract theories for which little practical application is provided.

The Technology/SCANS strategy makes risk avoidance difficult. It creates a caveat venditor prospective. The very structure of the simulations introduces conflict, value-laden issues, and interpersonal dynamics that require ethics-based choices. Learners are actively involved in creating solutions that require managing conflict and creating collaboration among disparate groups. The line of investigation is no longer drawn at the classroom door. Learners and their facilitating instructor venture into the real world to discover solutions that work and to avoid mistakes that are less visible in the sterile classroom environment.

One result of an expanding environmental context has been a willingness on the part of learners to accept greater responsibility for their own learning. Further, they have become active creators of knowledge in collaboration with the instructor. Follow-up with students several semesters after the experience reveals that the new approach to learning continues to be practiced.

The last dynamic focuses on the demands of evaluation. Learners are apprehensive about an evaluation design that departs from "the known." Standard examinations based on lower-order learning--recall and application, grading on the curve, and the superordinate/subordinate relationship with the teacher are comfortable if not rewarding. Grades continue to be the sine qua non of learning even though it is almost impossible to identify an empirical relationship between them.

The Technology/SCANS strategy is based on the careful development of a group climate based on objective criticism and confrontation over ideas. Participants are taught strategies for conflict management. Assessment is both formative and summative. In the former, peer and facilitator feedback regarding learner mastery of skills and knowledge is provided within a supportive, "learning for mastery" context. In the latter, the external team reinforces group achievement while using errors to develop understanding of the real world.

Students who have participated in one or more of the courses using the CD-ROM simulation strategy question why all courses don't use a "learning community" approach to assessment. Several report that they have negotiated with other instructors for the inclusion of the strategy in their courses.

The HCC pilot has been in effect for five years. It began with four courses and is now in use in eight. What has been the result of the process on learners and the learning context?

### **Conclusion: Toward a New Learning Paradigm**

Hansen and Stephens conclude that those environments which overcome negative dynamics have a blueprint for creating learning communities.<sup>6</sup> The HCC experience reinforces their findings. Three broad foci are contributing to the emergence of a new learning paradigm at the college.

First, learners are becoming open to change. They are more independent, self-critical, and willing to reach beyond the classroom to create knowledge. They report using the CD-ROM group simulations as a learning context for developing initiatives. They recognize that these experiences parallel the real world and success in one will contribute to further accomplishment in the other.

Second, the new learners are willing to risk controversy and engage conflict to achieve a goal. Both in classes and at work they report using the

group dynamics techniques learned to enrich their learning environments.

Employees report that these "new learners" are emergent leaders in the work context.

Finally, accountability has taken on new meaning for both learners and their facilitating instructors. The hallmark of learning communities is accountability to others. Learning has meaning to the extent that it is applicable to managing change, solving problems, or improving the quality of life. Learners apply a new ethical perspective to their educational, work, and social contexts. Instructors re-examine the theoretical base of their courses. Empirical relevance emerges as a benchmark for inclusion. Collaboration becomes a moral imperative within the teaching/learning interaction. What is the future significance of the HCC strategy?

The League for Innovation study provides a useful blueprint. Wilson, et al., indicate that "community colleges are interested, often enthusiastically so, in 21st century learning outcomes." Further, they report that students, faculty, and employers appreciate the value of learning communities as tools for engaging change. They recommend further discussion, research, and the establishment of "best practices" as a strategy for meeting the challenges of the

"Knowledge Age."<sup>7</sup> HCC faculty and students agree; further development and refinement are the essence of the process and goals for the future.

## Resources

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4. Wilson, et al. League, ibid., p. 15.
5. Hansen, Edmund J. and Stephens, James A. "The Ethics of Learner-Centered Education: Dynamics That Impede the Process." Change: The Magazine of Higher Learning, Vol. 33, No. 5 (September/October 2000), p. 42.
6. Ibid.
7. Wilson, et al. League, ibid., p. 58.



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