

Curriculum, Technology, and Higher Education

by Chad Hanson

Following the 1974 publication of Harry Braverman's *Labor and Monopoly Capital*, sociologists began to suggest that the work of teachers could be deskilled along the same line as industrial labor. In 1992, Apple and Jungck warned of the consequence "when educational bureaucrats borrow the ideology and techniques of industrial management." At the time, they drew attention to "the tendency for the curriculum to become increasingly planned, systematized, and standardized at a central level, totally focused on competencies."¹ By the end of the decade, public school teachers worked in an environment of standardized curriculum packages and state-wide testing. Apple and Jungck's words were prescient, the professions of elementary and secondary teaching have been deskilled, and there are signs the twenty-first century is bringing deskilling to colleges and universities.

On the application of deskilling theory to postsecondary education, *Managed Professionals* author, Gary Rhoades, notes, "The recent history of higher education is one of managers initiating the reshaping of colleges' and universities' missions, organization, and instructional programs," and, he adds, "deskilling theory's thesis that managers introduce new technologies to increase control over workers makes sense in this context."²

In this article, I explain how the work of a growing number of educators is changing as a result of initiatives designed to manage the practice of college teach-

Chad Hanson teaches sociology at Casper College in Casper, Wyoming. His essays, articles, and reviews have appeared in *The Teaching Professor*, *College Teaching*, *Teaching Sociology*, *The National Teaching and Learning Forum* and *The Journal of Higher Education*, among others. His research interests center on exploring the social, cultural, and political roles of colleges and universities.

ing. Specifically, I use the case of the Worldwide Instructional Design System (WIDS) to demonstrate how the work of college teachers is undergoing a deskilling process.

In the 1990s, driven by a culture of assessment and accountability, higher education managers began searching for techniques to document student learning outcomes. Competency-based education (CBE), also known as mastery or performance-based education, appealed to administrators because the approach requires a practice where teachers make use of curriculum models specifying the skills developed by students. The hallmark of competency-based systems is a pre-

The push toward a competency-based curriculum 'is not an educational or professional movement, but a managerial movement.'

occupation with outcomes, and postsecondary schools began adopting CBE under the assumption that the model offers a means to narrow the focus of large, complicated institutions down to the level of measurable results. In June 1992, the Wisconsin Technical College System Foundation joined General Electric Medical Systems to create a curriculum package that could be used to ensure that college graduates met GE's training specifications.

The fruit of their effort was a computer program and support organization called the Wisconsin Instructional Design System, rooted in competency-based philosophy. Ten years after the software was created, the WIDS client list swelled to include all 16 schools in the Wisconsin Technical College System, the University of Wisconsin–Whitewater, the University of Wisconsin–Stout, 20 Michigan community colleges, and an assortment of two- and four-year schools in 11 other states. By spring 2002, the list of colleges licensed to use the software spread over the border into Canada, prompting the change in the title from “Wisconsin” to “Worldwide.”

CBE is often described in language that sounds beneficent. Advocates use terms like “student-centered” and “learner-focused” to describe the approach—although a close reading suggests that in spite of appeals to students and learning, the push toward a competency-based curriculum “is not an educational or professional movement, but a managerial movement.”³ In 1992, Richard Bates noted that CBE did not grow out of an ambition to enlighten or enrich the lives of students, but out of a desire to document that colleges and universities produce results consistent with the demands of businesses employing graduates. According to Bates, the purpose of CBE is “increased efficiency and increased articulation between industry and education.”⁴ CBE advocates conceive colleges and universi-

ties in terms of their contribution to workforce development. Public institutions are thought of as a means to subsidize training costs sustained in the private sector. When a college moves to a CBE format, “the discourse of economics reconstitutes the meaning of education; the value and legitimacy of knowledge are determined purely by their market value.”⁵

When teachers use WIDS software to create course syllabi or lesson plans, they work through a series of steps, each step marked by a question. The first step is to ask “what” students are to learn. The “what” step is then followed by the question of “when” students are to meet competencies. Finally, faculty describe “how”

In a WIDS classroom, teachers tell students what to do and successful students comply. At no point do teachers or students stop to ask, ‘why?’

students are to demonstrate their skills. In a WIDS classroom, teachers tell students what to do, and successful students comply. At no point do teachers or students stop to ask, “why?”

Michael Apple predicted the shift away from the “why” question as early as 1986, half a decade before WIDS was conceived. In *Teachers and Texts* he wrote, “The more new technology transforms the classroom in its own image, the more a technical logic will replace critical political and ethical understanding.” He went on to assert, “the discourse of the classroom will center on technique,” and suggested, “‘how to’ will replace ‘why.’”⁶ The missing “why” question is more than a careless oversight. CBE is not designed to provide students with a forum in which to wrestle with big, meaningful questions such as, “Who am I? What might I become? What is this world in which I find myself, and how might it be changed for the better?”⁷ The expressed purpose of CBE is to produce a trained and dutiful workforce; students do not raise questions as part of the curriculum. “[CBE] is a conception that sees human beings as mere performers rather than reflective actors,” In *The Limits of Competence*, Ronald Barnett writes of CBE, “It is a philosophy devoid of enlightened and critical reason.”⁸ In the WIDS model, there is no room for students to challenge the expectations they are given.

Corporations may have profit-driven motives for placing rigid demands on employees, despite the employees needs or interests, but those motives are not consistent with the public purpose of colleges and universities. As Barnett observes, “Competencies and outcomes cannot provide guidelines for higher education curriculum. It is the business of higher education to develop critical capacities, which must include the evaluation and possible repudiation of contemporary competencies.”⁹

Historically, college and university faculty pursued knowledge within disciplines and shared that knowledge with students, often through the course of heated discussions. As a result, students carried new perspectives and habits of mind into society. In the WIDS model, the traditional process is overturned, and economic institutions outside the academy determine what knowledge is important. The role of the teacher is reduced to transforming that pre-determined knowledge into training regimens.

WIDS is characteristic of Taylorist or “scientific” management.¹⁰ Frederick Taylor’s time and motion studies served as the basis for an engineering movement that altered the state of the industrial labor force. Under the banners of logic and rationality, scientific management transformed American manufacturing into an entity obsessed with productivity. For its part, the Wisconsin Technical College System Foundation takes pains to promote the impression that WIDS software is a logical extension of scientific principles.

Even so, in spite of claims that WIDS is learner-centered, these competency-based models reduce the role of students to merely passing through linear sets of preordained objectives. The nature of the educational process is secondary to the achievement of technical skills. In short, “this ideology is concerned much more with ‘learning outcomes’ than with the character of any pedagogical process. In this pedagogy, to arrive is infinitely better than to travel.”¹¹

Three decades ago, Harry Braverman argued that the intent of scientific management is not the advancement of science. Rather, it “enters the workplace not as the representative of science, but as the representative of management masquerading in the trappings of science.”¹² Despite efforts to promote a scholarly image,



standardized curriculum software packages like WIDS are best seen, not as a means for improving the art or science of teaching, but as industrial-era management strategies.

With respect to the work of public school teachers, British educators Jenny Ozga and Martin Lawn wrote, “Proletarianisation results when the worker is deprived of the capacity to both initiate and execute work, it is the separation of conception from execution, and the breaking down of execution into controllable, simple parts.”¹³ In colleges where WIDS has been adopted, faculty face three signs of deskilling: (1) a loss of the capacity to initiate and execute work, (2) the separa-

In the WIDS model, the work of faculty is no longer considered part of a disciplinary effort to pass on and advance academic fields.

tion of conception from execution, and (3) reducing complex professional activities to a series of simple parts.

The college or university-wide adoption of WIDS often gives rise to a dispute over the terms or efficacy of the competency-based approach. But even in schools where the faculty are unionized, teachers have been unable to stop an institution from moving toward the WIDS model if there is an impetus from the administration or board of trustees. In fact, few have made an effort to resist. The lack of opposition is largely because “technology is seen as an autonomous process. It is set apart and viewed as if it had a life of its own, independent of social intentions, power, and privilege.”¹⁴ WIDS software is not neutral, however, and faculty who are made to use it would do well to ask, “Who gains power and who loses it when such presumably neutral technological innovation is introduced?”¹⁵

In the WIDS model, the work of faculty is no longer considered part of a disciplinary effort to pass on and advance academic fields. Instead, faculty work is considered part of an institutional effort to document student learning outcomes, not a bad goal in itself, but hardly a substitute for the practice of academic freedom within scholarly disciplines. Another early questioner of the efficacy of CBE in higher education, Gerold Grant, offers a summary of the changes that take place when institutions adopt a competency-based curriculum:

Course planning is no longer the province of the individual teacher or the teacher’s disciplinary guild. The process of curriculum revision and course design in competence-based programs often leads to a coordinated syllabus, sometimes expressed in a condensed form as a “grid” of outcomes and prescribed experiences. In this respect, syllabi in competence programs come to resemble those characteristic of elementary and secondary schools.¹⁶

Whether or not it is labeled as such, the competency movement has already taken a firm hold in elementary and secondary schools. WIDS merely represents the most recent attempt to move the model up to the postsecondary level, and it is a move that managers are evermore willing to make, as the model is consistent with the assessment and accountability movements shaping the norms and values of the academy.

In fairness, there is no reason why software packages like WIDS shouldn't be available to faculty. But WIDS is not presented as a choice. Instructors are forced to adapt their practices to the WIDS format in institutions that become licensed

When a college or university adopts the WIDS model, the curriculum is standardized with the intent that it can be passed from one group of teachers to another.

to use the software, and on the subject of changing teaching practices to match a technological agenda, Rhoades notes:

Faculty's collective input and control regarding these decisions is in part a proxy of their autonomous control of the curriculum. So, too, is their individual choice about whether to use new instructional technologies. To the extent that managers may direct faculty to utilize such technology in delivering courses, they have reduced faculty's autonomy.¹⁷

As faculty autonomy is reduced, faculty lose a share of their independence and decision-making power—and the loss of the capacity to conduct work on one's own terms is a central feature of deskilling.

With respect to the separation of conception from execution—another feature of deskilling—the expressed goal of WIDS products and services is the development of an institutional curriculum that is “systemic, systematic, and consistent.”¹⁸ In other words, when a college or university adopts the WIDS model, the curriculum is standardized with the intent that it can be passed from one group of teachers to another. Contributing to this, in the last decade more than half of the newly hired teachers in U.S. colleges and universities have been part-time or adjunct.¹⁹ In the WIDS system, part-time teachers are asked to use curricula created by full-time employees. Thus, WIDS creates a scenario where one group of faculty and staff develop a curriculum that legions of others follow—part-time teachers in particular. According to Rhoades, “In such cases, instruction is deskilled to consist of simply delivering a course developed by someone else.”²⁰

In the next step of deskilling, reducing complex professional activities to a series of simple parts, the WIDS model was designed to limit the work of teach-

ers to a step-by-step set of procedures; faculty fill in the blanks. If a teacher subscribes to the WIDS philosophy and uses the software the way it was meant to be used, every day of the week is prescribed and run according to a list of competencies, assessments, and objectives. Faculty focus on measurable outcomes—as they should to some degree—but the narrow focus comes at the expense of an emphasis on larger social or educational goals, and according to Apple and Junck, “When complicated jobs are broken down into atomistic elements, the person doing the job loses sight over the whole process and loses control over her or his own labor.”²¹

Despite a strong emphasis on accountability in the CBE literature, WIDS


There is no documentation available to show that WIDS software improves student development or the practice of teaching in higher education.

software and its accompanying training package have not been evaluated. There has been no attempt on the part of the software’s creators, or any of the colleges or universities that use the model, to assess the system. There is no record of faculty, student, or public satisfaction with WIDS, and there is no documentation available to show that implementing WIDS software improves student development or the practice of teaching in higher education.

In a culture of increased accountability, this lack of scrutiny may come as a surprise, but deskilling theorists have argued that technological systems like WIDS have little to do with assessing or improving professions like college teaching. Instead, they argue that models like WIDS are extensions of management techniques. WIDS is an attempt to break down, simplify, and manage the work of educators, who have historically conceived themselves as autonomous.

It is safe to assume that attempts to standardize and oversee the work of faculty will become more common in the future. Pressure to introduce technological management systems into college classrooms will increase as well, despite evidence suggesting teachers perform best when they plot their actions according to the needs and interests of students, as opposed to a list of predefined outcomes. In the years ahead, it will be crucial for teachers to consider the implications of changing their practices to match the goals associated with course management technology, and it will also be vital for faculty to have a role in the discussions taking place over the re-ordering of the historic mission of our public institutions.

Barnett suggests that CBE language, “has to be recognized for what it masks, embedded interests have to be dug out and exposed; otherwise, they will continue to influence and diminish our practices.”²² In a limited sense, we have already allowed the process of deskilling to enter into postsecondary schools. If faculty are

to maintain their status as professionals, and if public institutions are to serve a broader purpose than providing private-sector interests with “a free supply of trained subordinates,” competency-based curriculum models like WIDS must be understood for what they are: industrial-era management systems.²³ As such, teachers and managers alike should question their place in higher education. 

ENDNOTES

- ¹ Michael W. Apple and S. Jungck, “You Don’t Have to be a Teacher to Teach this Unit,” 24.
- ² Gary Rhoades, *Managed Professionals*, 182.
- ³ Richard Bates, “Barely Competent,” 4.
- ⁴ *Ibid.*, 4.
- ⁵ David Franklin Ayers, “Neoliberal Ideology in Community College Mission Statements,” 545.
- ⁶ Michael W. Apple, *Teachers and Texts*, 171.
- ⁷ Mark Edmundson, *Why Read?*, 5.
- ⁸ Ronald Barnett, *The Limits of Competence*, 77.
- ⁹ *Ibid.*, 81.
- ¹⁰ Winslow Frederick Taylor, *The Practice of Scientific Management*.
- ¹¹ Ronald Barnett, *Beyond All Reason*, 151.
- ¹² Harry Braverman, *Labor and Monopoly Capital*, 86.
- ¹³ Jenny Ozga and Martin Lawn, “Schoolwork,” 324.
- ¹⁴ Michael Apple, *op cit.*, 151.
- ¹⁵ Beverly Burriss and Wolf Heydebrand, “Technocratic Administration,” 202.
- ¹⁶ Gerold Grant, “Implications of Competence-Based Education,” 14.
- ¹⁷ Gary Rhoades, *op cit.*, 185.
- ¹⁸ Robin Soine, “A Framework for Learning Design,” 38.
- ¹⁹ Eugene Rice, “The Future of the American Faculty.”
- ²⁰ Gary Rhoades, *op cit.*, 201.
- ²¹ Michael W. Apple and S. Junck, *op cit.*, 201.
- ²² Ronald Barnett, *op cit.*, 55.
- ²³ Thorstein Veblen, *The Higher Learning in America*, 144.

WORKS CITED

- Apple, W. Michael. *Teachers and Texts: A Political Economy of Class and Gender Relations in Education*. New York: Routledge, 1986.
- Apple, Michael and S. Jungck. "You Don't Have to be a Teacher to Teach this Unit: Teaching, Technology, and Control in the Classroom." in Andy Hargraves and Michael Fullan eds. *Understanding Teacher Development*. New York: Teacher's College Press, 1992
- Ayers, David Franklin. "Neoliberal Ideology in Community College Mission Statements: A Critical Discourse Analysis." *The Review of Higher Education* 4(2005):527-49.
- Barnett, Ronald. *The Limits of Competence: Knowledge, Higher Education and Society*. Buckingham, UK: Society for Research into Higher Education and the Open University Press, 1994.
- _____. *Beyond All Reason: Living With Ideology in the University*. Buckingham, UK: Society for Research into Higher Education and the Open University Press, 2003.
- Bates, Richard. Barely Competent: Against the Deskillling of the Professions Via the Cult of Competence. Paper presented at the Seminar on Competency and Professional Education, University of Canberra. September, 1992.
- Braverman, Harry. *Labor and Monopoly Capital: The Degradation of Work in the Twentieth Century*. New York: Monthly Review Press, 1974.
- Burris, Beverly and Wolf Heydebrand. "Technocratic Administration and Educational Control." in *Critical Studies in Organization and Bureaucracy*. Edited by Frank Fischer and Carmen Sirianni. Philadelphia: Temple University Press, 1984.
- Edmundson, Mark. *Why Read?* New York: Bloomsbury, 2004.
- Grant, Gerold. "Implications of Competence-Based Education." Pp. 1-17 in *On Competence: A Critical Analysis of Competence-Based Reforms in Higher Education*. Edited by Gerald Grant. San Francisco: Jossey-Bass, 1979.
- Ozga, Jenny and Martin Lawn. "Schoolwork: Interpreting the Labor Process of Teaching." *British Journal of Sociology of Education* 3 (1988):323-36.
- Rice, Eugene. "The Future of the American Faculty: An Interview with Martin J. Finkelstein and Jack H. Schuster." *Change* 2 (2004):26-35.
- Rhoades, Gary. *Managed Professionals: Unionized Faculty and Restructuring Academic Labor*. Albany, NY: State University of New York Press, 1998.
- Soine, Robin. "A Framework for Learning Design." *Techniques* 3 (2003):38-41.
- Taylor, Frederick Winslow. *The Practice of Scientific Management*. New York: W.W. Norton, 1967.
- Veblen, Thorstein. *The Higher Learning in America: A Memorandum on the Conduct of Universities by Business Men*. New York: Hill and Wang, 1957.

