

Reimagining
**College
Education**

A Mega-Institution Design for
Mass Access to Meaningful
Education
Second Edition

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— A Summary
Comparison of
MCCE versus the
Present System in
Chapter 5

Present System	MCCE
Operates in Shop mode	Operates in Industrial-Scale Orchestration
Course content is developed single-handedly by faculty members, most often using text materials. Such content is limited to the knowledge and experiences of the faculty member and textbook author(s). Beyond the text, most often, the teacher has very limited resources to create, supplement, and update quality content.	In MCCE, teams of academics and practitioners create high-quality course content composed of text, videos with captions, simulations, and games, as appropriate to the topic. Routinely updating the modules keeps topics updated at minimum costs.

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Therefore, the coverage and quality of course content vary considerably from class to class, depending on the individual teacher's knowledge, ability, mood, commitment, and interests. The average quality is what an average teacher with meager resources can produce.

**Quality Control &
Consistency of
Course Coverage**


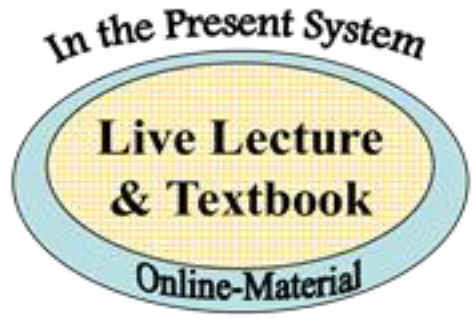

Under MCCE, academic-practitioner teams with ample centralized resources produce high-quality course content. The expectation of the systemwide, comprehensive final exams enforces consistent and complete course coverage.

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 Content	
Present System	MCCE
<p>Live lectures and textbooks are the primary sources; online material, though growing, is secondary. Therefore, content is limited and often stale. Updating printed materials takes months if not years.</p> <div style="text-align: center;">  </div>	<p>Course knowledge bases and practice bases are centralized. Other printed materials and classroom interactions have supporting roles. MCCE content has the benefits of being recorded, rich, and updated every term. Updating online materials is fast and inexpensive.</p> <p style="text-align: center;">In MCCE</p> <div style="text-align: center;">  </div>

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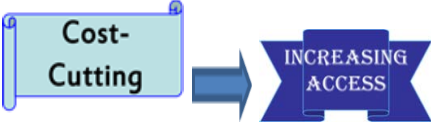
Active Learning – (chapter 3)	
Active learning is a sideshow in the learning process.	Active learning puts the student at the center of responsibility.
Practice materials are often limited to textbook review questions, problems, and exercises in the back of the textbook's chapters. The single-handed teacher often has very limited resources to create, supplement, and update the practice material.	The MCCE course practice base contains extensive and constantly updated review questions, problems, and exercises, each with multiple hyperlinks to relevant pieces of the lecture, text, and other practice items. Mass utilization of such sets makes their production economically justified. While the course practice set may include many selective-response items, the emphasis is on subjective items where proactive and creative skills are developed.

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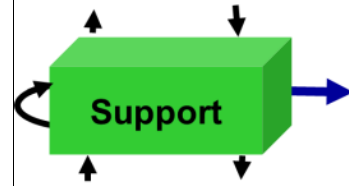
 Delivery 	
Two modes of delivery: Face-to-face (in-person and remote) and pre-recorded online.	
Present System	MCCE
<p>Largely in-class delivery. Most online delivery lacks class interactions and support.</p>	<p>MCCE has two complementary delivery channels: (1) online, 24/7, and (2) by instructors at the affiliated schools.</p>
<p>In-class delivery is costly and puts time and space restrictions on students and faculty.</p> <p>The creation and delivery of serious online content are beyond the capacity of single-handed teachers.</p> <p>Although MOOC products have higher quality, they offer a minuscule number of subjects.</p>	<div style="text-align: center;">  </div> <p>In an adaptive transition, students move from in-class delivery to a combination of in-class and online and increasingly develop independent online learning habits, reducing the needed instructors' time, which equals lower labor costs.</p>
<p>Presently, delivery is the visible part of teaching. Many students don't have the background to see the significance of serious content. Thus the content can become camouflaged and compromised.</p>	<p>Content is created at MCCE Central, and its coverage is a systemwide requirement without the limitations of the single-handed teacher. Superior delivery is another advantage.</p>

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'Support' means taking the student through the course. It requires two systems:

1. Creating an active learning environment,
2. Unremittingly providing feedback on the student's work and keeping them *on course*.

Feedback on Student Work

Present System	MCCE
<ul style="list-style-type: none"> • Answering questions in class from the teacher. • Getting feedback from posted answers to questions • Getting help during the limited faculty and their teaching assistant office hours. 	<ul style="list-style-type: none"> • Automated self-help system: computer answers objective (selective-response) questions within the course practice base. • Students can compare their answers to subjective items (essays, design, case analysis, etc.) with sample answers linked to the relevant lessons. • Furthermore, live (face-to-face or remote) feedback from the instructors, tutors, and help desk are available at the affiliated schools.

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<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="background-color: yellow; padding: 5px; border: 1px solid black;"> Thorough Exams ▶ </div> <div style="background-color: blue; color: white; padding: 5px; border: 1px solid black;"> Grading & Assessment ▶ </div> </div> <p><i>You will propel the individual or the collective towards whatever you measure and reward. Through examinations and grading, formal education directs the students' learning activities. If they are not congruent with the educational objectives, the system is left in confusion.</i></p>	
Present System	MCCE
Chapter 4, for the most part, describes the lack of credibility of exams and grading in the present system.	Decoupling exams and grading from instruction is a major departure from the present system. MCCE exams are designed, developed, and executed by MCCE Central. Therefore, they can be comprehensive and consistent systemwide. Grading is also managed by MCCE Central, independent of the instructor.
<p>Testing and grading are unchecked, unsupervised, and unrewarded tasks. Thus, serious testing and grading have few, if any, advocates.</p> <p>The seriousness, quality, and rigor of examinations and grading vary from class to class and teacher to teacher. Enrollment pressures often lead to shallow exams.</p>	<p>Testing and grading are decoupled from the instructors' work, thus not polluted by reciprocal evaluations of the instructor and students.</p> <p>Double-blind grading by a network of graders, managed by MCCE Central, provides reliable and consistent grading.</p>

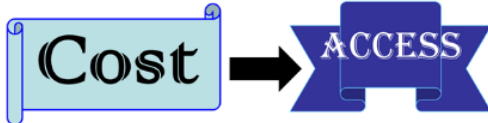
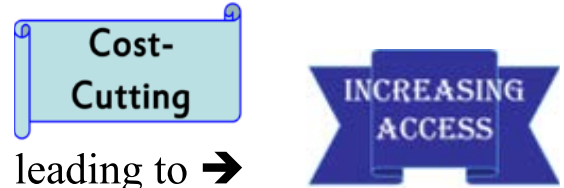

Students failing and dropping out are accepted as part of the process.	Under the <i>no-fail</i> policy, the student will repeat the prerequisite course modules, if necessary, until near-complete learning is achieved (chapter 4).
Selective-response (e.g., T/F and multiple-choice) exams are the predominant testing mode in the present system.	Subjective (e.g., essay, case analysis) testing is the dominant mode of MCCE exams. However, where appropriate, e.g., in a survey or introductory course, a large set of selective-response questions complements the subjective ones.
Course-level assessment is impractical in the present system.	MCCE course-level assessment is incorporated into the exam and grading process. Building assessment into exams and grading can change students' focus from their grade to their educational objectives.
Agility is not measured. It is not practical.	MCCE builds <i>agility</i> measurement into exams.

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Present System	MCCE
<p>Complaints about the high cost of higher education are widespread. High cost means less access for underserved students, whose poverty and social immobility often continue into the next generation because of the lack of higher education.</p>	<div style="text-align: center;">  <p>leading to →</p> </div> <p>Simultaneous cost-cutting and quality enhancement.</p>
<p>Programs are departmentalized. Once the student is locked into a program, changing the program is difficult and costly, if not restricted altogether. Many students will continue the program half-heartedly.</p>	<div style="text-align: center;">  </div> <p>The system is large-scale, with programs ranging, for example, from welding to theories of superconductivity, from clerical skill to paralegal, law, and legal and ethical philosophies. The modular content structure gives more flexibility to move into neighboring topics. As a student finds a matching program, s/he goes through the program with full mental commitment and enthusiasm.</p>

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Present System	MCCE
<p>Presently, the active part of the institution's intellectual capital is limited to what is in the minds of faculty, books, and online. They are temporal and intangible.</p>	<p>Under MCCE, in addition to what is in the faculty's mind, the institution's intellectual capital accumulates and expands by the increasing number of added recorded modules in the MCCE-CAL system.</p>

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Some Overall Effects,	
	
Present System	MCCE
<p>In <i>below-the-top</i> institutions, with varying degrees, learning is optional. A small percentage of students are self-motivated and eager to learn while pursuing a degree, but the larger percentage get passing grades and get the diploma half full or empty. Thus, the intellectual capital of the institution and the society is severely shortchanged. Enrollment centrism of educational institutions, combined with weak learning quality control, mushrooms “diploma mills” and encourages many legitimate institutions to slide down their path.</p>	<p>Under MCCE, learning is not optional if one seeks a degree program. The student will repeat the course module or, if necessary, the entire course until true learning is achieved.</p> <p>Once implemented, MCCE can discredit and bankrupt diploma mills, as it will create a respectable large-scale education — richer in content, better in delivery, and lower in cost, thus easily accessible.</p>