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## Twenty-first century education and training Implications for quality assurance

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### Abstract

Education in the 21st century presents challenges to quality assurance that were unimaginable just a quarter century ago. E-learning in particular, with its ability to render time and place irrelevant, requires that we abandon traditional measures of “quality” such as “contact hours,” “library holdings,” and “physical attendance” among others in favor of more meaningful measures. Quality assurance and accreditation in the 21st century will require consensus on a set of “universal” attributes or standards of a quality educational experience, a focus on the learner rather than the institution, and a willingness to open the entire process to a much broader group of stakeholders. © 2002 Elsevier Science Inc. All rights reserved.

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### 1. Introduction: a brief history of formal education and quality

Traditional methods of Western education, the “transmission model,” have their roots in the monastic schools of the 7th and 8th century AD and subsequently the early European universities of the 13th and 14th centuries (Knowles, 1980). Similarly, notions of “quality” education are also centuries, even millennia, old. It is important to note that the context for determining quality has historically been limited by the purpose of education and the population for whom formal education was provided. The early monastic schools were established to promulgate religious doctrine and the early European universities to promulgate religious doctrine and to institutionalize the educated status of the noble class. Formal

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education, therefore, was an extremely exclusive activity, reserved for a very small and elite portion of the population. Moreover, early academic education was devoted almost exclusively to transmitting content or “knowledge.” The curriculum was finite and was expected to serve the learner for life. Therefore, the criteria for “quality” were quite limited and could be assessed with two basic questions:

1. Was the instructor a content expert?
2. Could learners demonstrate, through some type of examination, a mastery of the information provided to them by the teacher?

Based upon the history of formal education described above and the concomitant history of determining “quality” in education, it should not be surprising, then, that today, at the dawn of the 21st century, that we are struggling to uniformly assess quality in educational activities when neither the purpose, the methods, nor the population for whom education is intended today, bear any resemblance to those on which formal education is historically based. Of course, formal education of the 20th century evolved greatly from its roots in the first millennium. Educational delivery methods grew more complex and student populations more diverse. It is only in the last hundred years, however that education has become more “democratized” and thus available to a much broader population, and only in the last 25 years that the expansion of “open” education and “distance” education have truly impacted the availability of formal education to those unlikely or unable to have pursued it in the past.

## **2. Contemporary challenges for quality assurance and accreditation**

New educational and training media such as the Internet, one- and two-way video, and other electronic media allow delivery of instruction independently of time and distance, often to populations who otherwise would not benefit from such resources. Moreover, the dissolution of traditional educational hierarchies and other systems designed as much to exclude certain populations as they were to assure “quality” have opened the higher education “club” to vast new populations. This new paradigm creates great opportunities for both educators and learners in terms of accessibility, flexibility, and in some cases, cost. However, it also creates significant challenges for quality assurance and accreditation. As the joint Statement of the Regional Accrediting Commissions on the Evaluation of Electronically Offered Degree and Certificate Programs suggests, “While these are welcome developments, the new delivery systems test conventional assumptions, raising fresh questions as to the nature and content of an educational experience and the resources required to provide it” (Council of Regional Accrediting Commissions, 2000). This suggestion is almost certainly understated. David A. Longanecker, former Assistant Secretary for postsecondary education at the U.S. Department of Education and current Executive Director of the Western Interstate Commission on Higher Education, adds that new educational delivery models are “leading us to a very different concept of quality assurance than we’ve traditionally had—but I’m not sure what that is” (Olsen, 1999). Longanecker’s comment reveals the difficulty of matching

new realities to old thinking and the fact that even the “leaders” in the accreditation world are struggling to understand the implications of 21st century education for quality assurance.

While the vast majority of the world’s population is still not able to pursue “higher education,” the explosive growth in the number and diversity of today’s students, and the impact of technology, cross-border issues, politics, economics, language and culture, and the dissolution of traditional educational hierarchies, present challenges for quality assurance and accreditation that were unimaginable just a quarter century ago. Whether we are speaking of corporate training, continuing education, academic courses, or even entire degree programs, the traditional mainstays of quality assurance such as physical attendance, “contact hours,” proctored testing, formal academic credentials for instructors/trainers, library holdings, and other factors are often impractical or simply irrational in today’s educational reality. For example, in an asynchronous online “class” there may be little or no relationship between the amount of time a learner is “logged in” and his or her productivity and learning. In this case, the whole notion of attendance becomes moot. Similarly, in many content-specific or information technology training settings, the most effective instructor for the job may not even possess a baccalaureate degree, let alone an advanced degree. Moreover, geographic boundaries no longer apply to educational access. A course, offered by a British university, may be taught by a Malaysian professor from multiple locations with students domiciled in Asia, North America, and Europe. Who accredits such a course and based on what criteria? To whom is the British University accountable and based on what standards? Does it matter in what language the instruction is delivered? What resources are available for student research? These questions will only become more pressing as new models of distributed learning take hold early in the 21st century.

### **3. New paradigms for accreditation and quality assurance**

As a result of the challenges mentioned in this paper, many traditional academic and professional accrediting bodies are struggling with some times blatant mismatches between traditional accrediting paradigms and new educational realities. It may be that the traditional accrediting bodies are not, in fact, the most appropriate entities for developing new, more relevant quality assurance and accrediting paradigms. For example, Marshall Smith, a former Deputy Secretary for the U.S. Department of Education, believes that the private sector, not government will establish “consumer-based” means of judging quality. “Such entrepreneurs might produce a distance-education version of Amazon.com, which lets buyers read reviews of books the company sells online. Another model . . . is the online-auction company eBay, which permits buyers to rate sellers of auctioned items” (Carnevale, 2000). Or, it may be that consortia involving instructional providers, learners, professional organizations, and the business community are better equipped to develop the criteria for determining quality. In other words, it may make more sense to have “end users,” for whom quality is of the utmost importance, play a central role in quality assurance processes. In fact, the very structures, processes, and criteria that govern the work of traditional accreditation bodies may be counterproductive in today’s educational reality! It may also be that “accreditation” per se is

no longer a productive construct. As long as parties with a common interest can work within a mutually agreeable framework, a dramatic “paradigm shift” away from the traditional accrediting bodies may be not only viable, but preferable. One possibility being pursued by the Distance Education–Quality Assurance Initiative at the Benjamin Franklin University (2001) is the adoption of ISO9000 Quality System Standards, in use by 350,000 organizations in over 150 countries, for use in distance education.

Another compelling “paradigm shift” may be to accredit the learner or the instructor rather than the institution. In other words, if the learner can demonstrate achievement of certain benchmarks of knowledge and skill, the individual would be “certified” rather than the institution providing instruction. This is already a powerful trend in information technology, whereby industry certification leaders, e.g., Microsoft, Cisco, and others have more currency in the marketplace than academic degrees, regardless of the status of the degree granting institution. Western Governors University in the United States awards degrees based upon the learner’s ability to demonstrate “competencies” rather than credits, so there is no required number of classes to graduate! Dr. Guy Bensusan of Northern Arizona University is currently developing a system whereby buyers (students) would go directly to sellers (instructors) and evaluate their products (classes) before deciding whether or not to register for a course. He terms this process “disintermediation” of educational delivery. Dr. Bensusan passed away shortly after this manuscript was written. His project may be pursued by colleagues.

Similarly, as the diversity of student populations continues to increase and the variety of educational opportunities likewise grows at a tremendous rate, it may be time to move the focus in quality assurance toward a predominantly outcomes or product based model (as has been the case in business) and away from a focus on the process or the medium (as has been the case with traditional accreditation). In short, it may not even be possible to address 21st century distributed models of education and training with their concomitant political, economic, demographic, cultural, technological, and transnational challenges via traditional models of quality assurance or accreditation. Returning to the example earlier in the paper of a course developed and offered by a British university and taught by a Malaysian instructor to students on three continents, even if it were possible to get multiple governments (national and local) and multiple accrediting bodies or ministries of education to agree upon the “legitimacy” of the course, would we want to spend time, energy, and money on this process? Moreover, if the learner wants the product and the market values it, does “accreditation” ultimately matter? Does the market itself, in some way, provide a level of quality assurance? Certainly, most of us would not be comfortable assuming an educational product is a quality product simply because it is valued in the marketplace. Nonetheless, we would be foolish to ignore the fact that ultimately, because of the very nature of e-learning, learners (or customers) are able to choose from a multitude of educational offerings regardless of what we or anyone else believes about the quality or legitimacy of such products. We would also be naïve not to recognize that education has become a commodity. It can be bought, sold, and transferred just like any other commodity. And educational providers, whether not-for-profit, public, private, or proprietary, are all ultimately bottom-line-driven. If an institution’s products do not have market value, the institution will not have a market.

Quality assurance in the 21st century, then, may very likely have more of a business orientation than a traditional educational one — not because “business is better,” but because market forces may dictate how educational “products” are delivered and evaluated. Accreditation and quality assurance will likely be different in other ways as well as noted in Table 1.

#### 4. Quality assurance and accreditation: definitions

Before concluding, it is appropriate to attempt to define two key concepts: quality assurance and accreditation. We shall start with the latter first. According to Judith Eaton (2001), President of the Council for Higher Education Accreditation (CHEA) in the United States, “Accreditation is a process of external quality review used by higher education to scrutinize colleges, universities and higher education programs for quality assurance and quality improvement.” The United States Network for Education Information (2001), a division of the U.S. Department of Education, defines accreditation as “the process used in . . . education to ensure that schools, postsecondary institutions, and other education providers meet, and maintain, minimum standards of quality and integrity regarding academics, administration, and related services.” Note that both definitions describe a process, based on “standards” or “quality,” but both choose to leave the issue of defining standards and quality to others. In effect, then, accreditation is a process by which an institution demonstrates to an external body that it does or can meet whatever criteria have been prescribed or mutually agreed upon as indicative of “quality education.” The challenge for those of us who offer education for multiple purposes, across populations and international

Table 1  
Old versus new paradigms for accreditation and quality assurance

Old paradigm	New paradigm
Teacher/institution-centered	Learner-centered
Centralized	Local
Hegemonic	Deferential
One size fits all	Tailored
Closed	Open
Us versus them	Collaborative
Quantitative	Qualitative
Prescriptive	Flexible
Time as constant/learning as variable	Learning as constant/time as variable
Teacher credentials	Teacher skills
Consolidated experience	Aggregated experience
Regional/national	International/global
Static	Dynamic
Single delivery model	Distributed delivery model
Process	Outcomes
Infrastructure	Services

borders, and via multiple delivery systems is to agree on what a quality educational experience looks and feels like. This is no small challenge. The overarching question is: What is quality?

CHEA (2001), in its glossary for *International Quality Review*, states that quality refers to “fitness of purpose—meeting or conforming to generally accepted standards . . .” and that quality assurance is a “planned and systematic review . . . of an institution or program to determine that acceptable standards of education, scholarship, and infrastructure are being maintained and enhanced.” Alternatively, it may be, quite simply, that a quality education is one in which the learner’s expectations for his or her learning are met or exceeded; that he or she has knowledge and/or skills that he or she did not possess before the learning experience took place.

These definitions are only part of the picture. As Andris Barblan, the Secretary General of the Association of European Universities suggests, “the ingredients of any quality assurance system are recognition, openness, and trust” (Barblan, 2001). If we start from that proposition, then we must acknowledge that the traditional relationship between the accreditor and the accredited has not always been based on a healthy, collaborative foundation. In some cases, the relationship is based on fear, and fear is clearly not the foundation of a productive quality assurance process.

## 5. Conclusions and recommendations

It is quite clear that education in the 21st century presents challenges to quality assurance that were unimaginable just a quarter century ago. E-learning in particular, with its ability to render time and place irrelevant, requires that we abandon traditional indicators of “quality” such as “contact hours,” “library holdings,” and “physical attendance” among others in favor of more meaningful measures. For example, if the value of attendance has been high quality interaction among students and between students and instructors, then the indicator of quality today should be interaction, *not* attendance. Likewise, if the rationale for requiring certain credentials of instructors, e.g., an advanced degree, was to establish “expertise” in a subject, then in today’s educational environment, the indicator of quality should be instructor expertise, *not* a specific academic credential. How do we achieve these outcomes-based measures?

First, we must agree upon a set of “universal” attributes or standards of a quality educational experience—*not* the means to achieving the standards, but the standards themselves. Moreover, these standards must be applied *independently of educational delivery method*. As we have discovered in the last few years, educational delivery is evolving faster than existing quality assurance methods. The resulting dissonance is the product of a misguided belief that standards of quality should exist for each type of delivery. Not only is this approach theoretically flawed, it is, as we have discovered, highly impractical. We must, therefore, focus on what outcomes we desire from educational experiences, not the means by which they are delivered. A point of departure for discussion, the *potential* “universal attributes” of a quality education, is in Table 2.

Table 2  
Possible universal attributes of quality education

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Quality education provides:

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- Continuity between “advertising” and reality
  - Continuity between purpose and practice
  - Preparation for external credentialing/further study
  - Personal/professional/academic growth for the learner
  - Relevance
  - Rich, multidirectional interaction
  - Functional, “user-friendly” interface
  - Adequate resources for: instructors, learners, curriculum
  - Appropriate assessment methods/opportunities
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Second, we must agree to evaluate educational programs and institutions in the context of the student experience, *not* the institutional experience. For example, if we agree that “high quality content” is a universally desirable component of any educational experience, then quality assurance processes must focus on the extent to which content is *learned* not how it is taught. Moreover, it may be that “learning” should to some extent be determined by the learner, not the instructor or institution! Similarly, if we agree that “adequate infrastructure” is necessary for quality education, then we must evaluate how that infrastructure serves students, i.e., *not* how many books are in a library building but how does the institution provide students access to such resources and to what extent are those resources relevant to the learning experience—again it may be that students play a role in determining quality in this domain.

Lastly, if we are to have viability and credibility in whatever quality assurance measures we adopt in the 21st century, we must open ourselves and the process to other stakeholders: the community, employers, professional organizations, peer institutions, and especially the students themselves. A great limitation of traditional accreditation paradigms, for example, has been that they tend to produce an “us-versus-them” dynamic as well as an inclination to provide just enough information to get by and to “hide” information that may negatively impact an evaluation. If the goal of quality assurance is actually to “get by” the process, then the existing system still has value. If, however, the point of quality assurance is to truly evaluate quality and empower institutions to *improve* the delivery of educational experiences, then we must make fundamental changes in the quality assurance and accreditation paradigms we have relied on for the last 100 years.

## References

- Barblan, A. (2001, January 23). *International quality assurance* (Plenary luncheon keynote speech). CHEA 2001 Annual Conference, New Orleans, LA, Tuesday. Available at: <http://www.chea.org/international/barblan.html>.
- Benjamin Franklin University. (2001). *ISO for distance education*. Available at: <http://www.bfranklin.edu/deqa/>.
- Carnevale, D. (2000, February 18). Assessing the quality of online courses remains a challenge, educators agree. *Chronicle of Higher Education*. Available at: <http://chronicle.com/weekly/v46/i24/24a05901.htm>.

- Council of Higher Education Accreditation. (2001). *Glossary of key terms in quality assurance and accreditation*. Available at: [http://www.chea.org/international/inter\\_glossary01.html](http://www.chea.org/international/inter_glossary01.html).
- Council of Regional Accrediting Commissions. (2000). *Statement of the Regional Accrediting Commissions on the evaluation of electronically offered degree and certificate programs*. Available at (in PDF format): <http://www.wiche.edu/telecom>.
- Eaton, J. (2001). *Accreditation*. Available at: <http://www.chea.org/About/accreditation.html>.
- Knowles, M. (1980). *The modern practice of adult education: from pedagogy to andragogy*. Englewood Cliffs, NJ: Prentice Hall.
- Olsen, F. (1999, August 6). “Virtual” institutions challenge accreditors to devise new ways of measuring quality. *Chronicle of Higher Education*. Available at: <http://chronicle.com/weekly/v45/i48a02901.htm>.
- United States Network for Education Information. (2001). *Accreditation described*. Available at: <http://www.ed.gov/NLE/USNEI/us/accred-what-is.html>.