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General Education: Learning from the Past, Preparing for the Future

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Abstract: This article explores the widening gap between business and societal needs and current general education curricula. Research is presented that documents gaps between projected needs of industry and current practices in postsecondary education, especially in the general education areas. Positive efforts to close the gap are highlighted. Changing regulatory environments are also presented, some that support forward-thinking approaches to liberal education and others that revert to traditional educational practices. With a focus on adaptability and intentional teaching and learning, some recommendations are introduced for flexible curriculum, intentional pedagogy, and a backwards approach to the teaching-learning enterprise that begins with the authentic assessment of student learning.

Keywords: General education, assessment, liberal education

Introduction

Postsecondary education has expanded worldwide. More and more people around the globe can access higher education through new educational modalities; today's students can choose from a dearth of fields of study ranging from the traditional liberal arts to applied fields of study such as engineering and medicine; post-secondary education is available at various levels from courses and certificates to doctoral degrees; postsecondary education is both credential-bearing and non-credential-bearing; and students can choose from different types of educational organizations including private, government funded, training schools, and non-profit and for profit institutions. There seems to be something for everyone in the contemporary postsecondary environment.

In spite of the progress in locations, modalities, access, and programs of study, a large part of contemporary postsecondary education reflects education of the past—general education. Many current educational practices grew from the earliest Greco-Roman education that focused on oratory. Cicero widened the early concept of education based on public speaking by adding the liberal arts, and further evolution included a view of culture (Pascal, 1984). The earliest schools in England in the 600s were of two types: Song Schools were professional schools for those who performed services, while grammar schools focused on general education and targeted those preparing to be statesmen, lawyers, and civil servants (Gillard, 2011). Everyone else received a more practical training experience if they received any education at all. Historically in the United States, only the most elite received a liberal education (Eckels & King). Throughout history, a liberal education was highly regarded and often available only to the elite.

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Today, most postsecondary schools have some general education requirements based on liberal education of the past. Indeed, some ministries of education, governmental bodies, and regulators demand it. For example, in the United States, the Middle States Commission on Higher Education's Standard 12 requires that "students acquire and demonstrate college-level proficiency in general education and essential skills, including at least oral and written communication, scientific and quantitative reasoning, critical analysis and reasoning, and technological competency" (Middle States Commission on Higher Education, 2006, p. 47). In the August 2010 *Guidelines for Preparing/Reviewing Petitions and Compliance Reports*, the president of the Council for Higher Education Accreditation (CHEA) notes increased "federalizing" of higher education in the U.S. including federal government judgments about general education requirements (Eaton).

Add to the problem that contemporary postsecondary education is designed to serve two different and sometimes competing purposes: Education for good citizenry and preparing graduates for the world of work. New Zealand, for example, includes the following two Outcomes Indicators: 1) Graduates can gain employment...and/or contribute to their local and wider community; and 2) learners acquire useful/meaningful skills and knowledge and develop their cognitive abilities (including learning to learn and self-management) (New Zealand Qualifications Framework, 2011). Similarly, the Framework of Qualifications for the European Higher Education Area First Cycle Qualification includes outcomes related to professionalism and lifelong learning: "...Can apply their knowledge and understanding in a manner that indicates a professional approach to their work or vocation..." and "have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy" (QF-EHEA, May 2005). The European outcomes stem from the Bologna Process that includes lifelong learning and employability in its list of outcomes (<http://www.ehea.info/article-details.aspx?ArticleId=11>). The rapid change in today's society and its economy presents new challenges in preparing students for both professionalism and citizenship.

Preparing the Workforce of the Future

It is clear that the general components of postsecondary education have to consider what today's students need to be contributing citizens and sustainable employees. Regardless of what students study, where they study, or for how long they study, all graduates around the world face and will continue to face the same global challenges, most notably the ability to adapt to an ever-increasing speed of change. Educators need to understand how the world of work is changing and be proactive in providing the types of learning experiences for contemporary students that will prepare them for an unstable professional future.

According to a survey of 479 senior executives conducted by the Economist Intelligence Unit (2010), companies will be more global, information will flow across borders more frequently and with greater speed, and companies will be flatter and more international in composition. Employees will be given more decision-making power earlier in their careers, be expected to travel more internationally, work in more diverse environments, and be more contract based (Economist, p. 5). These respondents expect a workforce that will be more transient and more diverse, and they see increased importance for what have been known in postsecondary education as "soft skills," especially communication, cultural awareness, relationship building, problem solving, project management, and interpersonal skills. In terms of educational preparation, these respondents believe that "international experience (whether through work or school) will be highly regarded" (p. 18).

Price Waterhouse Coopers, *PWC*, (2010) focused its research on talent mobility and indications for the future. Trends similar to those identified in the *Economist* study—emerging markets, new revenue streams, trade, and technology—will require a 50% increase in employee mobility by 2020 (*PWC*, p. 8). This will increase the diversity of the talent pool and require employees who are more transient and more adaptable to changing technologies, communication formats, and diverse cultures. They also envision more contract employees to increase organizational flexibility and note the likelihood of diminished organizational loyalty. Based on these projections, today's students can expect a professional life that is less stable and more mobile.

IBM (2010) surveyed 1,547 corporate heads and public sector leaders across sixty nations and 33 industries to understand their future leadership needs. In prior IBM global CEO studies, coping with change was the most commonly cited challenge. In 2010, the most common response was complexity. More than half of all respondents in this study doubted their ability to manage the rapid pace of change. To counteract the complexity challenge, the majority of the respondents (60%) stated that creativity was the most important leadership quality for success in business, outweighing integrity (52%) and global thinking (33%). Representatives of the most successful companies report co-creating products with their customers and simplifying processes to increase organizational dexterity. The vast majority of respondents (88%) regardless of industry or geography agree that customer focus is the top business strategy, outpacing people skills, insight and intelligence, and enterprise model changes (IBM).

The results of the IBM, *PWC*, and *Economist* studies provide suggestions for postsecondary education and especially for its general education component. If one goal of postsecondary education is to prepare today's graduates for the workforce of the future, it needs to ensure that graduates are creative problems solvers who can adapt to rapid change, who can work in an increasingly diverse society, and who can thrive in an unstable work environment. If general education is the part of postsecondary education to which all students regardless of academic discipline are exposed, it is critical that it addresses current needs and keeps pace with anticipated future changes.

What Is General Education?

While the term “general education” has been used in academia in some parts of the world for a very long time, confusion remains about its meaning. Carol Geary Schneider, President of the Association of American Colleges and Universities (AAC&U), provides clarity and suggests liberal education as the future of postsecondary education. Schneider distinguishes between the commonly confused terms of liberal education, liberal arts, *artes liberales*, and general education as follows (Schneider, 2003, p 2):

Liberal Education:	A philosophy of education that empowers individuals, liberates the mind from ignorance, and cultivates social responsibility. Characterized by challenging encounters with important issues, and more a way of studying than specific content, liberal education can occur at all types of colleges and universities.
Liberal Arts:	Specific disciplines (the humanities, social sciences, and sciences).
<i>Artes Liberales</i> :	Historically, the basis for modern liberal arts; the quadrivium (arithmetic, geometry, astronomy, and music) and the trivium (grammar, logic, and rhetoric).
General Education:	The part of a liberal education curriculum shared by all students. It provides broad exposure to multiple disciplines and forms the basis for developing important intellectual and civic capacities.

Current Practice and Future Needs

General Education as defined above is indeed general. In fact, it may be so general that it fails to meet the needs of today's students, tomorrow's graduates, or the future workforce. On behalf of AAC&U, Peter D. Hart Research Associates (2006) surveyed 305 executives whose companies have at least 25 employees and report at least 25% of new hires holding baccalaureate degrees; they also interviewed 510 recent college graduates. In addition to the interviews, three focus groups were conducted with CFOs, CIO, and CEOs of private companies that employ primarily college graduates. The purpose of the study was to uncover what employers and college graduates see as guiding principles in contemporary postsecondary education. Since AAC&U promotes liberal education as the contemporary replacement for traditional general education, this study sought to confirm or negate this position.

Results of the Hart study agree with the IBM, PWC, and Economist studies about perceptions of the workforce of the near future. "The context in which today's students will make choices and compose lives is one of disruption rather than certainty, and of interdependence rather than insularity" (Peter D. Hart Research Associates, 2006, p. 2). They concur that the general education offered in most postsecondary institutions is not working. Of the business executive respondents, 63% agreed that too many college graduates do not possess the skills to be successful in the global economy (2006, p. 6). While half of both employers and recent graduates believe graduates of U.S. postsecondary institutions are well-prepared for entry level positions, a decreasing percentage see graduates as prepared for the changing global economy, 49% and 39%, respectively (2006, p. 7).

Both employers and recent graduates emphasize the importance of providing opportunities for students to apply skills in real world situations (Peter D. Hart Research Associates, 2006, p. 2), and employers emphasize the importance of integration between skills. What employers report as the most important factors in hiring—teamwork skills, critical thinking and analytical reasoning, and communication—are not the skills most recent graduates present. Simply put, there is a disconnect between what employers need and what recent college graduates can do. Many experts attribute this in part to few opportunities for students to practice skills they learned in the classroom.

New Views of Liberal Education

Employers, university graduates, and many educators around the world agree that educational practices of the past are not preparing business leaders of the future, nor can they produce evidence that graduates understand the responsibilities of global citizenship. Additionally, in 2004 AAC&U analyzed desired student learning outcomes across professional accreditors including AACSB for Business, ABET for engineering and technology, CCNE/AACN for Nursing, and Boeing to represent global business needs. The analysis revealed widespread consensus about outcomes for postsecondary education:

- Strong analytic, communication, quantitative, and information skills
- Deep understanding and hands-on experience with the disciplines that explore the natural, social, and cultural realms
- Intercultural knowledge and collaborative problem-solving skills
- Civic, social, and personal responsibility
- Integrative thinking and the ability to transfer knowledge from one setting to another (AAC&U, 2004, Taking responsibility for the quality of the baccalaureate degree).

The 2007 Australian Qualifications Framework (AQF) for postsecondary education provides consistent yet flexible guidelines for postsecondary education including vocational, training, and higher education. The AQF is outcomes-based; its developers considered multiple audiences in developing its framework including employers and employees; curriculum developers; professional associations and unions; accrediting bodies; and the public including students and parents (AQF 2007, p. 3). Bachelor degree outcomes are consistent with outcomes identified by business leaders in previously cited studies. They include communication and problem-solving skills; ability to comprehend and evaluate new information from a range of sources; application of knowledge in new settings, especially in a professional context; self-directed and lifelong learning; interpersonal and teamwork skills (p.9).

Australia is not alone. In the United Kingdom, the QAA is the Quality Assurance Agency for Higher Education. The QAA publishes reference points and guidance, most recently reflected in the UK Quality Code for Higher Education launched in December 2011. The Quality Code sets expectations for all UK higher education providers and guides individual institutions on appropriate internal policies and processes for quality assurance. Although still in development, the QAA is moving in the same direction as AAC&U and the AQF. According to the *UK Quality Code for Higher Education: A Brief Guide*, its key values are enabling students to shape their learning experiences and providing formative feedback to improve success, transparency, and external involvement (The UK Quality Code, 2011, p. 4).

Private organizations also are guiding postsecondary education. The Assessment of Higher Education Learning Outcomes (AHELO) Feasibility Study is attempting to assess the possibility of measuring and comparing undergraduate student outcomes on an international basis. This effort focuses on three areas of study: Generic Skills (general education), Engineering, and Economics. Nine countries participated in the first part of the Generic Skills feasibility study. They include Columbia, Egypt, Finland, Korea, Kuwait, Mexico, Norway, the Slovak Republic, and the United States (AHELO, 2012). The Feasibility study concluded that “It is not yet possible to determine whether international consensus has been reached on a Generic Skills Assessment Framework as development work has only recently commenced” (p.6). Initial efforts used an adapted version of the Collegiate Learning Assessment, but it is too early to draw conclusions about its reliability and validity for AHELO’s stated purpose. AHELO is in its preliminary stages, but the effort indicates a need to define and measure common outcomes for postsecondary education worldwide.

The Lumina Foundation (2011) is taking a different approach. They have presented a qualifications framework —The Degree Profile (TDP)—to illustrate what students in the U.S. should know and be able to do upon completion of their associate, bachelor, and master’s degrees. Similar to efforts in New Zealand and Australia, Lumina does not recommend standardizing degrees, curriculum, or teaching methodologies. Rather, “the Degree Profile describes student performance appropriate for each degree level through clear reference points that indicate the incremental and cumulative nature of learning” (Lumina, p.1). The Degree Profile focuses on outcomes that apply to all fields of study and on the unpredictable demands of the workplace of the future. Lumina’s Degree Profile emphasizes analysis, adaptation, and application across occupational fields and the liberal arts (p. 3). To accomplish this, the Lumina model considers both specialized and broad/integrative knowledge, intellectual skills, applied learning, and civic learning (pp. 8-9). Professional success and civic responsibility are apparent in the Lumina model as they are in most contemporary models of postsecondary education.

The Future of General Education and Integration with Outcomes Assessment

Many models exist and are emerging. Examples of best practice in shifting from general to liberal education and from passive to intentional learning abound. First year experiences, problem-based learning, integrative learning, and learning communities are just some of the current practices that have shown positive results. These efforts represent great progress, especially in an academic world known for its reluctance to change. Progress is good, but it is neither good enough nor fast enough to cope with changes in the world around us.

Most current and recommended best practices focus largely on curricular change. They shift the locus of control from a single general education department to shared control between liberal education departments and the disciplines; they focus on application of learning rather than just factual knowledge; they implement authentic assessment instead of relying on indirect measures of learning. While all these changes are positive and are moving postsecondary education in the right direction, most changes are static. Institutions are replacing an existing curriculum with another set curriculum that will require another significant amount of time to change when the economic, technological, and social environments shift again. In other words, academia always will be behind the needs of business, political, and social environments. It's time to change the approach to postsecondary education and especially to its foundation in liberal education.

Organic Integrative Curriculum

The next step in liberal education has to be a real understanding of, belief in, and commitment to integrative learning. This would result in an integrative curriculum where faculty across departments and levels of study share responsibility for essential elements of learning. This means a curriculum that ebbs and flows with the needs of the contemporary and future global society. That does not mean change for the sake of change, nor does it mean whimsical change based on the preferences of a few. What it does mean is thorough, thoughtful, evidence-based review of what graduates need to succeed in business and as productive, contributing world citizens and the commitment to providing all students access to such an experience. It does not mean curricula that sever the past. The "canon" became the canon for a reason; we learn from the past and from themes that bind all of humanity. It does mean that as educators, we need to choose what we teach for clear reasons, that our students know why what we teach is important, and that we present the curriculum in meaningful ways that will impact future generations and the world in which they live. Curriculum design, teaching, and learning all must be intentional.

Curricula generally focus on content. Faculties ensure that the appropriate amount and level of content is covered in each course so, upon graduation, students have been exposed to the information they need to be knowledgeable in their chosen fields. Contemporary discussions of liberal education, in contrast, emphasize the importance of intentional learning for all students throughout the entire curriculum. This means curricula need to address the affective domain as well as the cognitive domain. In addition to engaging students with content and increasing opportunities for them to apply new information, curricula need to make clear to students the purpose of the learning as they begin their programs of study and continuously through graduation. The goal no longer is to ensure content knowledge; it is to ensure that graduates understand the importance of learning, of why various content elements are important, and of their need to plan to continue learning throughout their studies, careers, and lifetimes. These curricular shifts mandate a change in both what students study and how they study it.

Re-Visioned Pedagogical Practice

Changes in curricula are essential but not sufficient. Changed pedagogical approaches are necessary as well. Intentional learning is as much about how faculty teach as it is about what they teach. This requires a paradigm shift from a focus on teaching to a focus on learning. From the initial curricular planning stages through classroom delivery, the focus needs to be on the student experience and the learning outcomes.

The “backward approach” is one approach to a more student-centered curriculum. This approach begins with the end—what the student knows, can do, and values at the end of the academic program. It then assesses where incoming students are relative to each of those outcomes. The curriculum design becomes a process of filling the gap, providing the learning experiences from where the students enter the program to the program’s learning goals. According to Wiggins & McTighe (2005), authors of *Understanding by Design*, current curricula are not designed to ensure understanding. Their process works backwards from goal to process. The authors describe the overarching guiding question: “How do we make it more likely—by our design—that more students really understand what they are asked to learn?” (p. 4). All educators are designers, whether intentional or not. Educators design curriculum and assessment protocols. In the past, curriculum began with content. Wiggins and McTighe turn this process around by focusing on the desired student understanding and then work backward to design the appropriate student learning experience. This approach changes curriculum development from a focus on content to a focus on what content the student knows, how the student can use that content in meaningful ways, and how the program develops students at increasingly higher cognitive levels. The process depends on a scaffolded approach to learning where new learning builds on prior learning, increasing both amount of information and likelihood of retention. This approach is not new. Applying it to pedagogy and intentional learning as well as to curriculum design is.

Active learning is another essential of re-visioned pedagogy. Lectures, videos, slide presentations no longer are the ideal ways of communicating information to students. Even the current emphasis on social media as the only way of reaching the millennials is not the answer. While a variety of media should be used when they are appropriate to the intended learning outcomes and while faculty and curriculum developers must consider their intended audience, communication channels alone will neither enhance learning nor increase intentionality because they are passive media. Pedagogical approaches have to change if students are to be prepared for the future and ready to learn with intentionality. Simply put, postsecondary education must shift from traditional passive approaches to approaches where students actively engage in their learning. Students have to do, not simply listen; they need opportunities to act in real contexts or at least reasonable simulations; they need interaction with and feedback from expert practitioners whenever possible. Students have to take responsibility for their learning if they are to become intentional learners who continue learning and contributing to their professions and the world throughout their lifetimes. Teaching methods have to demand increasing student responsibility throughout postsecondary programs, and they have to teach with intentionality to do so.

In no way does this shift diminish the faculty role. Indeed, the faculty role is enhanced. In this model faculty are much more than content experts. They are experts in learning theory and apply what they know about how people learn to the delivery of their content. Their focus expands from content goals to learning goals. They facilitate and mentor students and provide opportunities for students to experiment and take risks. Faculty know this encourages students to take responsibility for their learning and grow through their own attempts to understand,

apply, analyze, and communicate what they know, what they need to understand, and their learning process. Faculty members in this model do so much more than pass on their knowledge; they help shape the next generation of experts in their disciplines.

This sounds idealistic, but it is not. In *What the Best College Teachers Do*, Ken Bain (2004) chronicles observations of faculty who consistently get the best results from their students. Across disciplines and in all types of institutions, the best faculty engage the students in their learning and push them to take responsibility for what they do. This pedagogical approach is not new. It is Socratic and commonly used with graduate students, especially at the doctoral level. Some undergraduate students experience this model and thrive in it through learning communities and honors programs, but this approach is not widespread. Nor is it intuitive. For this pedagogical shift to occur, institutions need to provide training and set expectations for all their faculties. They also need to provide opportunities for faculty to collaborate across disciplines and with non-academic units to create opportunities for faculty to learn and grow. Only when institutions and their faculty embrace the liberal education philosophy will postsecondary education evolve into a global system with a common goal: Prepare for work but educate for life.

Authentic and Appropriate Assessment

The most effective curricula and pedagogies start at the end, and the end is assessment. Everything in postsecondary liberal education focuses on student learning outcomes broadly defined. Before conceiving a new program or designing a new curriculum, the end goal must be clear. That means defining learning outcomes clearly and in measurable terms. Only then can the faculty as content experts determine the content, modalities, and learning experiences most likely to achieve those goals. Only then can programs and courses inform students of what they need to know and how each step in their programs contributes to their goal attainment. Only then can program leaders monitor student progress toward stated goals and, if needed, make appropriate modifications as needed through a continuous improvement cycle.

Assessment is only as effective as its design, implementation, and use. Assessment measures whether measuring program outcomes or course-level objectives have to match intended learning outcomes. When they don't—and they don't more often than one would expect—faculty and academic leaders act on misleading information that can have adverse effects on their students and ultimately on their program's reputation. Assessment, like curriculum, therefore, must start at the end and must measure what students really need to know, do, and value to be intentional and lifelong learners as well as content experts. Faculty has to determine where measures of incremental growth will be notable and measurable, and everyone has to invest in doing assessment right.

Responding to comments from industry leaders and recent college graduates, postsecondary students need more opportunities to apply learning. This calls for more authentic assessment where student learning is assessed as students apply their learning in real or realistic simulated situations. This means assessment throughout the student experience and across the curriculum to ensure appropriate progress throughout an academic program. This means robust analysis of shared assessment data across disciplines and across time. Finally, this means inclusive and shared assessment to gain varied perspectives about student progress across time and, hence, program effectiveness.

These themes are not new in literature about assessment of student learning. Implementation, however, has been slow. It is much easier to give a test or a student satisfaction survey than it is to assess actual performance of skills in authentic situations, judge application of principles, determine the levels of analysis students should demonstrate at various points in their programs. Assessment is hard work, but without it, institutions cannot validate the appropriateness of their programs, nor can they assure their students that they will be prepared upon graduation to achieve their intended goals.

Assessment is not magic. It is hard work. As with all work, the work of assessment is easier when it is shared and validated. Collaboration across departments, support from institutional research experts, and involvement of external experts distributes the workload and provides opportunities for program validation. Most importantly, this is one place in academia where sharing is appropriate. Much work has been done on authentic assessment of student learning both in specific disciplines and for liberal education. While assessment has to be tailored to specific program outcomes, assessment models can and should be shared across institutions, across disciplines, and across levels of study.

Like all aspects of teaching and learning, assessment is a process. It takes time, and it is not linear. Assessment efforts provide information. As we learn from that information and its intersections with information from other sources, we get new ideas for our programs and for the ways we teach and our students learn. Assessment is the key to curricula and pedagogies that evolve and that focus on preparing our future workers and citizens.

Conclusion

Liberal education, the education that "...empowers individuals, liberates the mind from ignorance, and cultivates social responsibility... [and is] characterized by challenging encounters with important issues, and more a way of studying than specific content" (Schneider, 2003) is not easy to achieve. It is much more than general education; it is liberating education. It is education that prepares graduates for their professional, personal, and civic lives. It is challenging for both students and faculty, but it is worth the effort. The general education (GE) of the past needs to be replaced with a new GE—global education—that prepares people to learn across their lifetimes, to adapt to rapidly changing environments, and to lead satisfying personal lives in socially responsible and globally aware ways.

This is a massive change that requires global thinking, global support, and global collaboration. This is an opportunity for postsecondary institutions around the world to model the liberal education we espouse to our students as we work together to develop meaningful and organic liberal education for all.

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