



ISSUE BRIEF

Learning Accountability
from Bologna:
A Higher Education
Policy Primer

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Web Availability

This document is also available in electronic form via IHEP's Web site at www.ihep.org/assets/files/learningaccountabilityfrombologna.pdf.

Introduction

Somewhere, some time in the political campaign debates of 2008, issues of the quality, affordability, and productivity of higher education in the United States are sure to be raised. And random numbers will surely be offered to claim that we are falling far behind the rest of the world on this critical territory. This propaganda of numbers will continue to produce proposals for our institutions of higher education to provide evidence of improved degree production, cost control, and student learning. But these proposals are made in a knowledge vacuum: they do not take account of the ways the same nations that are presumably overtaking us have addressed these issues in recent years, and thus do not provide constructive guidance.

This document is addressed to a broad array of citizens, legislative committees, higher education organizations and administrators, students and faculties, and op-ed writers everywhere who pronounce judgments on higher education in the United States.

It's about accountability in the enterprise of higher education, a big abstraction that we think we know as well as we know the lifelines on the palms of our hands. It's simple, isn't it? Our colleges, community colleges, and universities are "accountable" to those who subsidize them or pay their tuition and fees if they make public their graduation rates, demographic mix, and job placement rates, and throw in a test or two to show that a random sample of their students know how to write or solve a problem. Everybody goes home assured that this is what higher education is about.

This document challenges that assumption, demonstrates what we can learn if we lift our eyes beyond our own borders, and, based on that learning, offers a very different set of prescriptions on accountability. It contends that none of the major pronouncements on accountability in U.S. higher education that we have heard in the recent past—from Secretary of Education Margaret Spellings' Commission on the Future of Higher Education to platitude pronouncements and wish lists for student learning from the higher education community—even begin to understand what accountability means. Even the "voluntary system of accountability" adopted by a large segment of higher education—which tells the public how many pieces of paper colleges and universities handed out (to whom and when), how much students liked different aspects of their experience at an institution, and how much scores on tests of something called "critical thinking" improved for a sample of students between entrance and senior year—is more show than substance.

All these pronouncements and efforts were genuine. All of them sought improvement—in something. But that "something" is not really accountability. At best, it's "accountability light." None of it says what credentials represent or what students must do to earn those credentials. There are no public reference points, and no public performance criteria. And students neither played a role in fashioning these efforts nor will be affected by them at all.

But imagine a system of higher education with 4,000 institutions and 16 million students that is changing all its rules, procedures, and standards so that—

- Everyone is singing in the same key, though not necessarily the same tune.
- Every degree is publicly defined so that everyone knows what it means in terms of the demonstration of knowledge; the application of knowledge; fluency in the use of information; breadth, depth, and effectiveness of communication; and degree of autonomy gained for subsequent learning.
- Students whose performance does not meet the public definition do not receive the degree.
- Everyone can recite the difference in performance standards for an associate's degree, a bachelor's degree, and a master's degree, and the public language of these standards clearly ratchets up the scope and performance bar at each level.
- Faculty in each discipline agree and publicly state the reference points of knowledge, skills, and competence that define the qualifications for a degree in their field at each level.
- Credits are based on a common standard of student workload, not faculty contact hours, and each course is assigned a level of challenge so that the combination of workload and level guarantees transfer of credits.
- Distinctive routes to degrees integrating associate's and bachelor's degrees, part-time status, and recognition of prior learning are set out in public maps to create alternative paths to participation and, thus, increased access rates.

- Every student who earns a degree receives, as a supplement to the diploma (and in addition to a transcript), an official documented summary of the setting, nature, purpose, and requirements of the degree and the major program—and a shorthand warrantee of what that student did to earn the degree.

That's *not* a description of the U.S. system of higher education, though the size of the system—4,000 institutions and 16 million students—is comparable.

It *is* the description of the core features of the system of higher education under development for the past decade in 46 European countries, across 23 major languages; one that is standing 800-year-old traditions on their heads. It is producing the European Higher Education Area, and some of the core features have already been imitated in Latin America, Africa, and Australia. While it is still a work in progress and has some bugs to fix, it has sufficient momentum to become the dominant global model of higher education within two decades.

It is called the Bologna Process, and is the most far-reaching and ambitious reform of higher education ever undertaken, one in which student unions have actively participated.

This policy brief brings to its readers in the United States highlights of what European higher education authorities, academic leaders, faculty, and students have accomplished and learned in the course of their efforts, particularly in the challenging matters of student learning outcomes (set in what are called “qualification frameworks”); the relationship of these frameworks to credits and curriculum reform; and the reflection of all this in the documentation of student attainment called “diploma supplements.” These highlights have been selected because they are extraordinarily relevant to accountability challenges that face U.S. higher education, and this document urges us to learn something

from beyond our own borders that just might help us rethink our higher education enterprise. These highlights clearly indicate that accountability in higher education begins with the establishment of public definitions of degrees and criterion-referenced statements of academic performance so that when an institution awards a credential it can assert, with confidence: ‘This is what this degree represents, this is what the student did to earn the degree, and a warrantee has been issued on behalf of both institution and student.’

On the basis of what we can learn from the experience of our European colleagues, this policy brief makes some very concrete—and bold—reconstructive suggestions for change across the U.S. higher education system, all of them following a student-centered story line of accountability, including:

- Developing detailed and public degree qualification frameworks for state higher education systems and for all institutions in students’ major fields;
- Revising the reference points and terms of our credit system; and
- Developing a distinctive version of a diploma supplement that summarizes individual student achievement.

These suggestions, derived from studying what the Bologna Process has wrought—for better or for less—are intended as “constructive irritants” to U.S. higher education. They clearly say that there is no free lunch, no easy way out. A college, community college, or university does not demonstrate its accountability by issuing more public statistics about how many of its entering students come back for a second year, or by giving a test on critical thinking to 100 student volunteers, or by refreshing its mission and goal statements. That is all easy avoidance behavior with no penetration of the organiza-

tion. Students—our constituents—will not sense that anything has changed. If we want things to work better, then we have to work, and work hard. Most of the national higher education systems participating in the Bologna Process have been at it for a decade—with another decade to come. We think we solved it all in the two years since the Spellings Commission put the first draft of its report up on the Web.

This policy brief is, of necessity, highly condensed. It is backed up by a far more extensive essay, drawing on interviews with 80 academic administrators, faculty, ministry officials, and researchers in nine countries and more than 500 documents in eight languages, and covering access and participation issues¹ as well as accountability issues. The essay provides more details, as well as reconstructive recommendations for a different approach to associate’s degrees, a different treatment of part-time students, a different strategy for recognizing prior learning, and a different perspective on the master’s degree.² In this policy brief, however, we keep a tight focus on accountability. ❧

¹ The Bologna Process calls these issues “the social dimension” of its portfolio; they are directed at underrepresented populations in higher education.

² “The Bologna Club: What U.S. Higher Education Can Learn from a Decade of European Reconstruction” (www.ihep.org/Research/GlobalPerformance.cfm).

Where Did the Bologna Process Come From?

In our view, the Bologna Process is yet another step in the evolution of European integration, principally in its economic dimensions. Education feeds labor force mobility and collaboration, but only if a nation's credentials are understood and recognized across borders. If higher education systems behave in a similar manner, with similar rules, one will witness a freer flow, not only in economies but also in shared culture. It's described as "convergence" and "harmonization," and is also seen as an inoculation against political tensions.


A Very, Very Short History

The Bologna Process is named for the Italian city that is home to Europe's oldest university, where the education ministers of 29 countries first met in 1999 to agree to an action agenda that would bring down education borders in the same way that economic borders had been dissolved. The meeting was an inevitable consequence of reforms that had been stirring across European education in the 1990s; the feeling that ancient systems of higher education had lost their way and world leadership; and a kick-start from the ministers of the four largest European countries (France, Germany, Italy, and the United Kingdom), who had met the previous year at the Sorbonne in Paris and planted the seeds of the European Higher Education Area.

The Bologna ministers set an optimistic date of 2010 for the transformations they imagined to be realized.

The 1999 ministers probably didn't know what they were facing. Once the major action lines of the Bologna Declaration were promulgated, the ministers were joined by university administrators (rectors' conferences in each country), student unions, transnational organizations, and disciplinary and professional associations. Over time, they were also joined by 17 other countries whose higher education authorities realized (some with greater enthusiasm than others) that Bologna had become the only game in town. Bologna follow-up groups held hundreds of meetings and seminars, and issued even more hundreds of declarations, studies, and proposals. The European Commission sponsored biannual *Stock-Taking* reports on Bologna, with the European University Association matching with *Trends* assessments, and the European Students' Union offering the simultaneous *Bologna Through Student Eyes*. It was no surprise that the portfolio of Bologna objectives was enlarged and refined in every biannual ministerial meeting after 1999. But the inevitable inertia and resistance at the institutional level, new provisions, and additional partners have rendered the 2010 completion marker a mirage; 2020 is more likely, but in academic time, that is a hand's breadth.

The national legislatures of participating countries did not sit by idly in all this ferment. If dramatic changes in the shape and operating procedures of a major public institution were to occur, they might require amendments to existing laws, new definitions and regulations, and, in some cases, budgetary “adjustments.” Even though legislative action is wholly voluntary, when it does occur, it does not happen overnight.

Our European colleagues—from Iceland to Greece, Portugal to Moldova—have engaged in an enormous amount of work over the past decade and will continue to do so. They have formulated, tested, stumbled, reformulated, and expanded. They have discovered discontinuities and dissonances, and have sought to repair them. They have learned what they do well and what they can do better. They know where they are leading and where they are lagging. Not every country has proceeded at the same pace or with the same degree of success, but the winds of change have blown through corners of the academic world that one never thought they would reach. If we in the United States listen, we will find that the Bologna Process offers powerful suggestions for solving some of our higher education conundrums in ways we have never or rarely contemplated. 

A MESSAGE TO U.S. ACADEMIC POLICYMAKERS WHO HAVE FRIENDS IN EUROPE WHO DON'T LIKE BOLOGNA:

So you have academic friends in Toulouse or Fribourg or Évora who think Bologna is a disaster; therefore, you think it's a disaster? For some real evidence, let's look at the March 2007 *Eurobarometer* survey of 5,800 faculty and administrators in 31 European countries. Here's what it found:

Thirty-two percent said the old degree system was better, with considerable variation by country (53 percent of the German faculty versus 11 percent of the French, for example) and by field (42 percent of engineering faculty preferred the old system).

So, disregarding the 9 percent who hadn't made up their minds, roughly 35 percent of the European academic workforce preferred the pre-Bologna degree system—while 65 percent disagreed. In an election, we would call that a landslide.

The Accountability Story, Part I: Qualifications Frameworks

What does each level of degree we award (associate’s, bachelor’s, master’s, and doctoral) mean? What does it represent in terms of student learning? What does a degree in a particular field at each of those levels mean, and what does it represent in terms of student learning? These sound like common sense questions that would have obvious and public answers. But obvious and public answers are not readily available, and that’s what some of our recent arguments about accountability in the United States have been about. Furthermore, the U.S. arguments tend to stagnate on process issues; under Bologna, these questions are about content. The Bologna Process has been very clear about the conceptual elements with which degrees should be described: learning outcomes, level of challenge, competencies, and student workload. Our first guidance for answering these questions can be found in qualifications frameworks.

WHAT IS A QUALIFICATIONS FRAMEWORK?

A qualifications framework is a statement of learning outcomes and competencies a student must demonstrate for a degree at a specific level to be awarded. It is *not* a statement of objectives or goals. It is *not* a wish list. It is a performance criterion. When an institution of higher education is governed by a qualifications framework, it must demonstrate that its *students* have demonstrated. And that means *all* of its students, not just the 100 volunteers who take a standardized test. While a qualifications framework does not dictate *how* that demonstration takes place or the nature and form of assessments employed, it does provide learning outcome constructs within which the demonstration is conducted. This is a *form* of accountability worth our serious consideration.

A second key characteristic of a qualifications framework is that the description of a degree clearly indicates how it differs from the degree level below it and the degree level above it. The language of the framework accomplishes this differentiation by ratcheting up the benchmarks. This “ratchet principle” pervades all the content challenge and performance statements of Bologna—from individual courses to degrees—and penetrates the credit system as well. This principle, embodying content and performance standards, is an *engine* of accountability worth our serious consideration.

Three levels and types of qualifications frameworks have been developed or are in the process of being developed under the Bologna Process: Transnational, National, and Disciplinary/Field.

The Transnational Qualifications Framework for the European Higher Education Area to which all Bologna participants have agreed is, of necessity, the broadest and most generic of the accountability forms. Think of our associate's, bachelor's, and master's degrees. Under the QFEHEA, there are five learning outcome constructs that, in their descriptions, illustrate the "ratchet principle":

1. Reference points of knowledge and understanding.
2. Contexts and modes of application of knowledge and understanding.

3. Fluency in the use of increasingly complex data and information.
4. Breadth and depth of topics communicated, along with the range of audiences for that communication.
5. Degree of autonomy gained for subsequent learning.

To illustrate the ratchet principle, let's take "fluency in the use of increasingly complex data and information"—watch the changes in language as one moves up the ladder from associate's to bachelor's to master's degrees (the European terms are short-cycle, first-cycle, and second-cycle):

THE RATCHET PRINCIPLE AT WORK

Short-cycle (associate's) degrees are awarded to students who "have [demonstrated] the ability to identify and use data to formulate responses to well-defined concrete and abstract problems."

First-cycle (bachelor's) degrees are awarded to students who "have [demonstrated] the ability to gather and interpret relevant data (usually within their field of study) to inform judgements [*sic*] that include reflection on relevant social, scientific or ethical issues."

Second-cycle (master's) degrees are awarded to students who "have [demonstrated] the ability to integrate knowledge and handle complexity, and formulate judgements [*sic*] with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgements."

National systems and individual institutions are free to define what “demonstrate” means; that is, what assessments will be used and the criteria of judgment for those assessments. But if you don’t somehow “demonstrate,” you don’t earn the degree. That much is clear.

As one moves up through the texts of the credential ladder, one notes the fading of occupational orientation, the emergence of social and ethical dimensions of learning, and the passage from well-defined contexts and problems to more fluid and dynamic contexts and problems. This general and parsimonious description attracts agreement and allows for subsequent levels of elaboration and variation in both national qualification and disciplinary frameworks. While we may not describe our associate’s, bachelor’s, and master’s degrees with the same constructs or with the same wide-angle diction, the point is that 46 countries took these as organizing principles based on learning outcomes and drew lines in cement to separate them clearly.

NATIONAL QUALIFICATIONS FRAMEWORKS: COMMONALITIES AND IDIOSYNCRASIES

In theory, one would expect each country’s higher education system to take the QFEHEA and develop its own compatible version—more detailed, taking into account the peculiar varieties of institutions in that system and their historical missions and commitments, and, where applicable, including intermediate qualifications between the three degrees. In practice, that’s not how it happened. Creating and obtaining consensus on a National Qualifications Framework is a time-consuming challenge; as of 2007, it appears that only seven of the 46 Bologna countries had completed the task. Among the seven, we note five very distinct models, illustrating how the Bologna countries can achieve convergence with variation:

- The Republic of Ireland created a comprehensive vertical framework with 10 levels from kindergarten to doctorate.
 - Germany has a more parsimonious phrasing, distinguished by articulating how students must demonstrate knowledge through what are called instrumental competencies, systemic competencies, and communicative competencies.
 - Sweden departs from the other countries by specifying key variations at the level of the bachelor’s degree for 19 applied fields, some of which lead to licensure occupations (e.g. audiology, nursing, biomedical laboratory science).
 - The Netherlands has drafted qualifications statements that refer to labor market positions and tasks, and the overall structure of the qualifications statement comes in two columns: one for universities and one for the institutions of applied science, the *hogescholen*.
- France created a process and registry under which every program credential at every institution of higher education is submitted for review and approval in a standard format, essentially undergoes the first stage of an accreditation review, and with the whole dossier available online.

The Irish framework best illustrates the ratchet principle. It would be analogous to taking a K–12 state standards scaffolding in the United States and adding higher education from associate’s through the doctorate, including descriptors of the knowledge, know-how and skill, and competence required at each level. Attached to each of the Irish higher education levels are distinct credentials, with an indication of both the transfer and progression paths to the next level. When the National Qualifications Authority for Ireland describes the criteria for ordinary bachelor’s degrees, honors bachelor’s degrees, and master’s degrees in more general (but still criterion-referenced) terms, it is not hard to see the differences: one moves from “well-established principles” (level 7) to the “forefront” of a field (level 8); from “understanding the limits of knowledge” (level 7) to “preparation. . .to push back [the] boundaries [of learning]” (level 8); from solving problems within a field of study (level 8) to solving them in “new or unfamiliar contexts” (level 9). Each level intensifies the challenge in a number of dimensions. This is not a wish list or a statement of goals. It’s a statement of criteria for ascending each rung of the ladder.


We may not agree with the definitions; we may not endorse the different types of degrees awarded; we may not agree with the descriptors. That’s not the point. The point is that a national system is setting forth a ladder of progression, with general outlines of what has to happen at each step for students (a) to earn the credential offered at that step and (b) to move to the next step. The national system then turns to its institutions of education and says: “You fill in the details, modify the descriptors, and make your statements public, and we will provide the forums and technical assistance (on request) to help you do this. You then distribute knowledge and skills and develop competencies in accordance with your public statements, match your assessments to those qualification standards, support your students, and do your best to make sure that they qualify at each level.” Ultimately, benchmarks are laid down, and both institution and system are judged by them. It is suggested that what the Irish did at a national level, the United States can and ought to do in public systems at the state level.

RECONSTRUCTIVE RECOMMENDATION #1
Our states, which govern and finance institutions of higher education attended by 80 percent of U.S. students, should develop statewide qualifications frameworks using the upward ratcheting scaffolding in stated core learning outcomes for our associate’s, bachelor’s, and master’s degrees.

These statements are generic and not discipline-specific; hence, the language of presentation should anticipate program versions in the arts and applied technical and human service fields, along with the traditional academic fields. If Missouri or Nevada says that these credentials are awarded to students whose performance matches the learning outcome descriptors, you can be sure that community colleges, colleges, and universities in those state systems will make it happen. Private institutions may also choose to buy in.

Some states might use the occasion to “go comprehensive and vertical” in the Irish-Scottish-UK style, building on state standards for K–12 systems that are already in place. Some states might take the Dutch approach—referencing labor market roles and tasks associated with different degree levels, and distinguishing qualifications frameworks for arts and sciences programs from those of applied arts and applied science programs. There are obviously a number of options for the shape of qualifications frameworks. But if two or three states took on the task, the rest would ultimately join to create a U.S. version of a zone of mutual trust and, in the process, to link ourselves and our students to the ever-expanding world of trust emerging from the Bologna Process. This is not an easy task and, as our European colleagues have demonstrated, it doesn’t happen overnight. It’s a decade’s work.

The process goes like this: Check state laws on higher education to see if any laws affect the establishment of qualifications frameworks. Form a study group composed of senior administration, faculty, and student representatives of all public institutions to examine qualifications framework models and determine which would be the best fit for the state system. Draft a qualifications framework for review and public comment, revise as appropriate, and adopt as state policy. Make sure all public institutions grant degrees to all students who meet the qualification standards.

Why go through this process? So that everyone—particularly students—understands why a bachelor’s degree is different from an associate’s degree in Utah or Ohio in ways other than how much time or how many credits it takes to earn it. With that clarity, these degrees will be fully respected in a global knowledge economy. And with that clarity in a few states, other states will follow. 

Note that none of the descriptions of outcomes or degrees in the European qualifications frameworks refer to elapsed time. None of them say that a student is expected to fulfill the conditions of an award in three years, four years, or six years. Their concern—properly—is with what students know, understand, and can do to qualify for a degree at a given level. Time is far less important than evidence of learning, and this attitude respects the presence of part-time students—in fact, encourages their presence, hence widening access.

The Accountability Story, Part II: What Happens Next? Tuning the Disciplines

“Tuning” is a methodology, including a consultation phase with recent graduates and employers, that produces reference points for faculty members who are writing criterion-referenced statements of learning outcomes and competencies in the disciplines. It provides a common language for academic-subject-specific knowledge and for generic competencies or shared attributes. Tuning Educational Structures in Europe is a university-level project that was brought into the Bologna portfolio. As it relates to qualifications frameworks, it seeks to help institutions and faculty describe “degree programs at the level of subject areas.”

Does that mean standardization of content, sequence, and delivery modes? Does it mean that the business program at the Warsaw School of Business will be a carbon copy of the business program at the University of Coimbra in Portugal? Hardly. Tuning goes to great lengths to balance academic autonomy with the tools of transparency and comparability. It’s a delicate balancing act, but the participation evidence says they’ve done it, though more successfully in some disciplines than others. The official Tuning documents stress that criterion-referenced competency statements are not straightjackets. They provide a common language for expressing what a curriculum at a specific institution aims to do but do not prescribe the means of doing it. Thus, the Tuning notion is like convergence. Everybody winds up with the same music staves, range of time signatures, tempo commands, and system of notation. All programs in the same discipline sing in the same key—engineering in A-minor, history in G, business in B-flat—but they don’t necessarily sing the same tune.

For example, the Tuning group in business first engaged in a consultative survey involving previous graduates of business programs, business faculty, and employer representatives with considerable knowledge and experience in the various facets of business programs (finance, accounting, marketing, organizational behavior, etc.) The objectives of such a survey (carried out in each field involved in Tuning) include gleaning current perspectives on the diversity of practice and commonality of knowledge across borders and traditions, and seeking a simple and accessible language to create scaffolding on which the various degree programs can work in comfort and trust.

On the basis of this consultation, the Tuning group in business developed guidelines for statements of learning outcomes in core knowledge (e.g., operations management, marketing, accounting), in supporting knowledge (economics, statistics, law, and information technology [IT]), and in communication skills

(language, presentation, and teamwork). The Tuning group in business did not specify outcomes statements (that is the responsibility of institutional faculty) but did recommend their distribution for the bachelor's degree: 50 percent in core knowledge, 10 percent in economics, and 5 percent each in quantitative methods, law, and IT. For the remaining 15 percent, the group recommended a choice (made locally) among a bachelor's thesis, an internship, or "activities documenting ability to solve problems across different business subject areas."

In the first two phases of the Tuning project, working groups in nine subject areas across 138 institutions in 16 countries arrived at a common language to describe curricular goals. The languages differed by discipline, as one would expect, but the reference points were remarkably constant. The effort has been very persuasive, not only in Bologna countries (where 16 other degree fields joined the Tuning project in 2005) but also, in the most noted case of Bologna model adaptations outside Europe, by the Tuning Latin America project (ALFA), which has expanded since its 2004 inception to 182 universities from 18 participating countries and 12 subject areas (from architecture to business to history to nursing to physics).

Something resonates here. Faculty obviously agree that it is possible to arrive at consensus for the *nature* and *form* of learning objectives in a field at different degree levels and at every institution that offers degrees in that field, without dictating the way to deliver a curriculum to match those objectives.

WHY DOES TUNING MATTER TO STUDENTS?

Students come to college to earn a degree in anthropology, mechanical engineering, or nursing; they come to community colleges to earn degrees in medical technology or commercial art. When you ask them what they are studying, they talk about the field, the discipline. And that's the way our faculties are organized, too. So specific disciplinary content counts—a lot!—and that is a theme of Bologna everywhere one turns.

When students enter a major or when they graduate, they deserve to know what they are in for and what they have accomplished. For this knowledge, as well as for guidance for faculty designing curriculum and instructional methods, Tuning suggests the following reference points—in this illustration, for the bachelor's degree. The student who is about to receive a degree in a specific major (e.g., accounting, anthropology, architecture, agricultural science, and so on) should—

- Demonstrate knowledge of the foundation and history of that major field;
- Demonstrate understanding of the overall structure of the discipline and the relationships among its subfields and to other disciplines;
- Communicate the basic knowledge of the field (information, theories) in coherent ways and in appropriate media (oral, written, graphic, etc.);

- Place and interpret new information from the field in context;
- Demonstrate understanding and execution of the methods of critical analysis in the field;
- Execute discipline-related methods and techniques accurately; and
- Demonstrate understanding of quality criteria for evaluating discipline-related research.

There are other criteria, of course, that are more specific to science majors, arts majors, and so on. No doubt readers will immediately notice parallels to outcome statements for the degree qualification statements we saw in both the QFEHEA and the national qualifications framework from Ireland. These parallels reinforce transparency and comparability in credentials.

And it's not merely subject matter reference points, either. Just as the degree qualifications statements addressed generic cognitive competencies, so does Tuning, though in more detail than our loose mantra of critical thinking. For example, here is how three technical universities in the Netherlands jointly deconstructed generic cognitive skills:³

- **Analytic:** "...the unravelling of phenomena, systems, or problems into sub-phenomena, sub-systems or sub-problems The greater the number of elements involved or the less clear it is what the elements of the resulting analysis are, the more complex the analysis.
- **Synthetic:** "...the combining of elements into a coherent structure which serves a given purpose. The result can be an artefact, . . . a theory, interpretation or model. The greater the number of elements involved or the more closely knit the resulting structure, the more complex the synthesis.

- **Abstracting:** "...the bringing to a higher aggregation level of a viewpoint (statement, model, theory) through which it can be made applicable to more cases. The higher the aggregation level, the more abstract the viewpoint.
- **Concretizing:** "...the application of a general viewpoint to a case or situation at hand. The more aspects of a situation are involved, the more concrete the viewpoint."

One observes, in these descriptions, that the notion of increasing complexity can be used to determine the levels of demonstrable competence and, with those levels, an analogous pattern to the ratcheting up of challenge in the pan-European and national degree-cycle qualifications frameworks.

TROUBLE IN RIVER CITY: THE LANGUAGE OF FIELD QUALIFICATIONS

One of the reasons for reaching beyond one's borders to learn something that might affect the way you look at your own enterprise is that you witness efforts that are not always persuasive—and you learn as much from shortcomings as you do from success.

So it was when European faculty participating in the Tuning process actually sat down, took the reference points for writing disciplinary qualifications frameworks in their institutions (not as goal statements but as criteria for awarding degrees), and tried to write learning outcomes statements: The results were not wholly satisfactory. That's a euphemistic judgment. Looking carefully at subject qualifications frameworks written by three or four university departments in each of four fields (business, chemistry, history, and nursing), the CoRe project of the Netherlands Organization for International Cooperation in Higher Education (NUFFIC) found serious problems. For example, they found problems in face validity (what was stated in the qualifications framework were not learning outcomes) and in operational quality (what was stated in the qualifications framework was something that could not be assessed). The assessment criterion is particularly trenchant if an institution

³ Meijers, A.W.M., van Overveld, C.W.A.M., and Perrenet, J.C. 2005. *Criteria for Academic Bachelor's and Master's Curricula*. Eindhoven, the Netherlands: Technische Universiteit Eindhoven.

If you are going to use Tuning-type reference points to guide meaningful and operational learning outcome requirements, you cannot write what George Orwell called “blah.” You have to focus on verbs in such a way that students understand what they are expected to *do*. If you say, “organizing” or “measuring,” the outcome statement should indicate precisely what you mean, so that you could design an assessment through which students would immediately see the connection between the question or task and the objective. When competence statements fail, it is usually a product of vague, generalized, and abstract presentation, and lack of reference points for student assessment. We can all learn to do this better—in the United States as well as in Europe.

claims that a graduate has crossed a threshold of learning or mastered a topic.

A PROMINENT ALTERNATIVE TO TUNING: BENCHMARKING

Every discipline stakes its turf and tells people what it is in accessible language. The British Quality Assurance Agency started issuing benchmarking statements for a wide range of fields in 2000, relying on advisory committees from the fields addressed and bringing accessible language to bear on setting boundaries for designing, modifying, and evaluating the presentation of disciplines in institutions of higher education—either individually or in groups of peer institutions. Benchmarking statements are publicly accessible so that:

- Faculty are reminded of what they have committed themselves to doing in the matter of distribution of knowledge and skills;
- Students can see in advance—and while it is in progress—what their academic journey is about and what levels of performance and understanding are expected; and
- External observers with a constitutive interest in the outcome of students’ study (employers, governance authorities, public policymakers) have an important set of guidelines (though not the only set available to them) for judging the quality of education and training provided by institutions in that discipline.

It’s another road to accountability.

For a concrete case, let’s pick a difficult discipline—history. A bachelor’s degree program in history does not produce practitioners of a regulated occupation in the same way that a program in accounting does, so benchmarking statements do not refer to the discrete practices even of professional historians. Instead, the history advisory committee to the UK’s Quality Assurance Agency specified six parameters for the content of a bachelor’s level program in history, thus benchmarking the *delivery of the program*:

1. Time Depth—One doesn’t see continuity and change in human affairs unless the temporal breadth of one’s historical study is considerable.
2. Geographical Range—History cannot promote intercultural understanding without requiring its graduates to have studied more than one society or culture.
3. Contemporary Sources—The discovery, identification, and use of materials contemporary to the historical periods studied. These are research skills, and they are transferable.
4. Reflexivity—Something born in historiography and methods courses: critical reflection on the nature of the historical enterprise, its “social rationale,” and its “theoretical underpinnings.”
5. Diversity of the Discipline—Think of economic, social, political, environmental, or cultural history; or topics in women’s history; or quantitative methods in history. The benchmarking here says that a graduate should have been “introduced to some of these varieties of approach.”

6. A major independent written project such as an undergraduate thesis using original sources or an evaluation of conflicting historical interpretations of a major controversy.

All aspects of this presentation—generic and content—are then wrapped up in 16 statements of learning outcomes subject to assessment, for example,

- Demonstrable command of a substantial body of historical knowledge;
- Demonstrable ability to develop and sustain historical arguments in a variety of forms, formulating appropriate questions and utilizing valid evidence;
- Demonstrable ability to gather and deploy evidence and data to find, retrieve, sort, and exchange new information; and
- Demonstrable command of comparative perspectives, which includes the ability to articulate analogies in the histories of different countries, societies, or cultures.

A department can select a configuration from these 16 learning outcomes to determine the knowledge and competence of its students. Assessment (how “demonstrable” is executed) and the judgment of performance plays a significant role in the history benchmarks statement, and the committee is very clear that a student who has not met threshold performance criteria “is likely to have failed to progress at an earlier stage” and, thus, will not receive the degree.

What do we learn from Tuning and benchmarking, and what do we suggest? When U.S. colleges, community colleges, and universities describe what students must do to earn a degree in a specific field, they list courses (required and suggested), credits, and minimum grade point average, not learning outcomes. Sometimes, departments issue a statement of the purpose of the degree in terms of the careers to which it traditionally leads or careers in which its subject may be useful. Sometimes one finds flowery mission statements extolling the vision or heritage or human benefits of the field. But rarely is there an attempt to provide a statement of the summative knowledge, skills, and capacities expected of graduates—let alone criterion-referenced performance criteria. Students themselves thus have little idea of the meaning of either their learning or the credential they receive.

In the emerging Bologna-inspired world higher education order, other countries would be taking a great leap of faith by recognizing U.S. undergraduate degrees without operational outcomes statements in the disciplines. If other countries have to make that leap of faith, our own employers and governance authorities are attempting to leap tall buildings in a single bound. We can do a lot better in the service of accountability.

RECONSTRUCTIVE RECOMMENDATION #2

The same state authorities that convene collaborative qualifications framework building for degrees should organize all departments in each discipline in the state to engage in a Tuning-type project to develop reference-point statements for local qualifications frameworks in the disciplines.

That also means learning from the evaluations of Tuning: paying close attention to language to ensure that what is described are knowledge, skills, and competencies—and not something else—and that the descriptions are operational; that is, that they yield benchmark criteria that can be assessed.

As in Tuning, this process does not bind individual departments to a single presentation of curriculum or a single mode of assessment—we all know that the flagship state university has more resources with which to offer its engineering degrees than a regional institution, and we know that some departments in a field have particular strengths in some subfields because of the specialty distributions of their faculties. But it gets everyone singing in the same key in terms of what the state economy can expect of graduates. And when these frameworks are made public, you have (a) a de facto accountability system that is stronger than anything we have in place now; (b) a system that is far more persuasive than standardized tests, delivered to samples of students, of obliquely taught and indirectly developed cognitive operations or skills; and (c) statements that provide considerable comparability with the order of knowledge and skills distribution in a world without borders.

Is this all hard work? Unquestionably. Can it be achieved by a state system overnight? Hardly. The consultative process in each discipline alone would take a year. Is it worth the outcomes? It certainly beats the short cut of test scores (which nobody really understands) and “value added” measures (which are understood even less, and which assume that everything that happens to a student between point A and point B is due to the institution[s] in which the student was enrolled). Our European colleagues did not take the easy route, and the route they took is now being imitated on other continents. ☞

The Accountability Story, Part III: Changing the Credit System

It's time to give the European Credit Transfer System (ECTS) its due. It is built on a fundamentally different assumption from that used in the United States, and if it plays out in its ideal form, it is inseparable from the principle of ratcheting up levels of challenge that we saw in degree qualifications frameworks. (Note that we said “if it plays out.”)

A drive started in the late 1980s and picked up steam across Europe in the 1990s to establish a common currency of academic attainment similar to the Euro (some readers will shudder at that analogy). But provided one knows what they mean, that's what credits do: They can be banked as markers of general attainment, at least in the world of higher education, where the issuers of this currency are so varied. In different ways, European countries asked, “Can we arrive at a set of definitions and principles about the meaning and use of credits that allows for a ledger of accumulation, transfer, stop-out-and-return, and shared cross-border learning?”

What started as currency for use strictly in temporary transfer cases—that is, when a student in one country took a semester or year at a university in another country—became, under Bologna, an accumulation mechanism similar to the one we know in the United States.

But the ECTS system begins with a very different orientation. We base our credit assignments on faculty contact hours, with the assumption that for each faculty contact hour, the student engages in additional learning activities. ECTS uses the *student*

as the primary reference point—it asks how many hours the average student must spend to accomplish the various tasks in a course module and converts the total to credits. If this approach is executed faithfully, it requires faculty to detail each learning activity in a course and estimate the number of hours the average student would require to complete that activity successfully. The result of such an estimate might look like this for a science course with two lectures, one laboratory, and a tutorial section each week:

ATTENDING LECTURES	28 HOURS
BACKGROUND READING	28 HOURS
TUTORIAL SECTION	14 HOURS
LABORATORY PREPARATION	14 HOURS
LABORATORY TIME	28 HOURS
LABORATORY REPORTS	21 HOURS
PAPER WRITING	24 HOURS
EXAMINATION PREPARATION	16 HOURS
EXAMINATIONS	4 HOURS
TOTAL	177 HOURS

How many ECTS credits is this workload worth? The divisors differ from country to country, but all are in the range of 25–30 hours

per credit. The divisors are determined by each nation's academic calendar year (which ranges from 34 to 40 weeks across Bologna participating countries); an estimate of the total number of hours in an academic calendar year available for study (the range, depending on length of the academic calendar year, has been 1,500–1,800 hours); and a Bologna Process standard of 60 ECTS credits per academic calendar year. The course above would be worth six or seven credits, depending on the system in which it was offered.

Three questions inevitably arise about ECTS:

1. Do most European faculty actually engage in a careful analysis of the relationships among desired learning outcomes, learning tasks, and student workload?

Answer: No. Water finds the easiest way to flow downhill, and once you have a formula based on total annual workload hours and conversions—such as 30 hours equal 1 ECTS credit—faculty will take the mechanical way out without thinking about learning tasks.

2. Does anyone ever ask for empirical evidence of how much time students actually spend on the various learning activities in a course?

Answer: Yes, but the practice is not widespread, and the results of student surveys are highly variable.

3. Does a credit system based principally on student workload have any effect on curriculum and the delivery of curriculum?

Answer: Absolutely yes! The minute faculty start to reflect on what they ask students to do, they find redundancies and gaps, and rethink requirements (adding or subtracting) and delivery modes (e.g., what can be moved to online delivery). All these effects have been demonstrated in Project Polifonia of the music conservatories in Europe (which are far more prominent on the landscape of higher education than they are in the United States).⁴

But there is a more challenging question about ECTS: **How does one connect a credit system based on student workload to learning outcomes, to the principle of ratcheting up challenge, and thus to qualifications frameworks and the structure of accountability?**

This is what we meant by “if it [ECTS] plays out in its ideal form.” There are a variety of approaches to this challenge. One might ask whether, standing alone, credits can represent different volumes of learning. The performing arts can illustrate the issue more easily than other disciplines. Say that it takes four hours for a conservatory pianist to master Beethoven’s “Für Elise,” two days for a Bach

⁴ The Project Polifonia approaches to learning outcomes and credits are detailed in the online essay “The Bologna Club: What U.S. Higher Education Can Learn from a Decade of European Reconstruction” (www.ihep.org/Research/GlobalPerformance.cfm).

Two-Part Invention, and four months for Rachmaninoff's 2nd Concerto (including preliminary rehearsals with an orchestra)—and most of that time is independent study known as “practice.” Are these measures proxies for challenge and level of learning? Can one find similar hierarchies of temporal investment in other disciplines? Surely there must be parallels in engineering lab assignments. Surely there are parallels in history between reading the textbook, synthesizing the equivalent of a textbook from a set of secondary sources, and digging out primary sources and writing a narrative based on them. Given the complexities of these different pathways and different modes of student work in the disciplines, our European colleagues have gone about the task of linking workload to learning outcomes with alternative proxies.

The first—and easier—grid for infusing credits with more meaning involves identifying levels of study. In Bologna terms, these are “level descriptors.” The Tuning project's recommendations for these levels are as follows:

- Basic/introductory level
- Intermediate level (intended to deepen basic knowledge)
- Advanced level (“strengthening expertise” is the way the Tuning project puts it)
- Specialized (subfields that open up at an advanced level)

If one were to summarize a graduate's record, one might say he or she earned 26 percent of the credits at the introductory level,

35 percent at the intermediate level, 29 percent at the advanced level, and 9 percent in specialized fields. (To be sure, one institution's intermediate-level course is another institution's advanced course, but so be it.) The objective of Tuning's recommendations on ECTS is simply to get people recording and reading in the same conceptual language, not to produce the same text.

We assume that course numbering systems used in the United States carry at least an analog of this level taxonomy, but as practiced across U.S. institutions of higher education, the system is not standardized even in language (let alone metrics) and is hardly transparent. The public higher education system in Florida has demonstrated that a common course numbering system is an efficient tool of transfer and enrollment management, and may even reflect common levels of learning across universities and community colleges (though without a Tuning-type process, one cannot know for sure). But Florida is a rare case.

A more intriguing approach linking credits to learning outcomes is reflected in the UK and Scottish⁵ placement of credits within *levels of challenge*. That link—between the measure of estimated student time-on-task and the level of demand inherent in those tasks—creates a credit level, defined as “an indicator of the relative demand, complexity, and depth of learning and of learner autonomy.”⁶ These systems have nine credit levels, each of which carries a generic description that is independent of discipline but can be applied to all disciplines—much in the same manner as qualifications frameworks. The following are the course credit level descriptors for levels 3–6 of the nine-level continuum.

SAMPLE CREDIT LEVELS AND THEIR DESCRIPTORS FOR UK AND SCOTTISH HIGHER EDUCATION

Level 3—apply knowledge and skills in a range of complex activities demonstrating comprehension of relevant theories; access and analyze information independently and make reasoned judgements, selecting from a considerable choice of procedures, in familiar and unfamiliar contexts; and direct own activities, with some responsibility for the output of others.

Level 4—develop a rigorous approach to the acquisition of a broad knowledge base; employ a range of specialised skills; evaluate information using it to plan and develop investigative strategies and to determine solutions to a variety of unpredictable problems; and operate in a range of varied and specific contexts, taking responsibility for the nature and quality of outputs.

Level 5—generate ideas through the analysis of concepts at an abstract level, with a command of specialised skills and the formulation of responses to well defined and abstract problems; analyse and evaluate information; exercise significant judgement across a broad range of functions; and accept responsibility for determining and achieving personal and/or group outcomes.

Level 6—critically review, consolidate and extend a systematic and coherent body of knowledge, utilizing specialised skills across an area of study; critically evaluate new concepts and evidence from a range of sources; transfer and apply diagnostic and creative skills and exercise significant judgement in a range of situations; and accept accountability for determining and achieving personal and/or group outcomes.⁷

As in the case of qualifications frameworks for both the European Higher Education Area and individual countries, these levels ratchet up complexity. Once the levels are established and everyone knows what they mean, degree qualifications can be set in terms of minimums at each level (e.g., 65 percent of credits at levels 5 and 6, 40 percent of credits at level 6). In the United States, that strategy would prevent students from stuffing their credit portfolios with level 3 courses simply to reach 120 or 128 credit thresholds for a bachelor's degree. The challenge of content means more than time-on-task if we want transfer of credit to work in the United States and cross-border mobility to work in Europe.

So what might we do to apply the perspectives learned from the Bologna experience? The U.S. credit currency is a metric designed for funding and resource allocation, not as a proxy for learning. Its engine lies in the office of the vice president for finance, not the office of the vice president for academic affairs. The student is incidental. Even in the matter of time, the same faculty load serves considerable differences in student workload. Something is wrong here. If we care about accountability for student learning, perhaps we need a redesign. Perhaps the Bologna experience might help us.

To redesign a credit system, one needs some definitions, principles, and guidelines. The mechanical implementation of ECTS doesn't really do it. Credit should define levels of student work (time volume and intellectual demand) that render courses in different disciplines comparable. In a way, the U.S. system tries to do that now by giving extra credit for science labs or language labs, or by heavier credit weighting of externships. But we do this in a rather arbitrary fashion and wind up awarding the same number of credits for course work of widely varying intellectual demand. We give three credits for a course in econometrics and three for Introduction to Sports, and brush such dissonances under the rug. This observation is not new, but neither the Spellings Commission report nor the organized higher education community's responses attempted to deal with this core quality assurance issue—and that's what it is. If we want credits to be meaningful and indisputable in the context of transfer or for recognition of prior learning, we need consensus on student workload formulas and level descriptors together. It's not perfect, but it's a start.

To redo the credit system in the United States along the lines of ECTS (with student workload as the primary reference point) would be an undertaking of considerable magnitude, and this route is not recommended. Yet there is no question we can make some critical adjustments that will make more sense

to future students and, in the process, demonstrate that U.S. higher education is committed to an honest assessment of the distribution of knowledge and skills, to quality assurance, and to transparency. How?

RECONSTRUCTIVE RECOMMENDATION #3
A CREDIT REVOLUTION FOR U.S. HIGHER EDUCATION
The same state higher education authorities that oversee the building of qualifications frameworks for degrees and Tuning-type reference points for qualifications frameworks in the disciplines should oversee the cooperative construction of "credit-level" descriptors analogous to those developed in the UK and Scotland and that would then be applied to every degree credit course offered in the state system.

- A. In other words, the credit system has to be supplemented by an indication of the level of cognitive and skill demand of each course. This indication requires a state system qualifications framework (as advocated in Reconstructive Recommendation #1).**
- B. No matter how an institution numbered its courses, each course would carry a public marker of its credit level, and this marker would be included on student transcripts.**
- C. Qualifications frameworks at the level of field or discipline would set minimum distributions of credits required at each level to earn a degree (e.g., 40 percent at level 4 and 50 percent at levels 3 and 4).**

Will this approach work if one state system does it and others do not? If the first state sticks to its guns, everyone else will follow, because the first state will give its students incredible global mobility, both pre- and postgraduation. That state system's credits will be recognized in at least 46 other countries. This is all worth more than just considerable thought.

Along the way, we will find that constructing credit qualifications as a function of both time and challenge will mitigate a lot of the arguments over transferability of credit. That is, even before considering student performance, an institution that has established clear criteria for credits and for the level of a particular subject is in a stronger position to judge another institution's credits in that subject at that level, or at another level. U.S. credits, as currently determined and granted, provide no such clarity. Increasingly—though not uniformly—European credits do. ☞

⁵ Even though it is part of the United Kingdom, Scotland has a separate higher education authority.

⁶ Joint Credit Bodies for England, Wales, and Northern Ireland [EWN], 2001. *Credit and HE Qualifications*. London: Author.

⁷ Joint Credit Bodies of England, Wales and Northern Ireland, *op cit*.

The Accountability Story, Part IV: The Diploma Supplement

After qualification frameworks, Tuning, and credits and their levels, what evidence of learning and attainment might the student graduate carry forward into the world, and how is that evidence communicated? After all, isn't there a graduation ceremony at which the student receives a piece of paper on which a degree is officially recorded, stamped, and surrounded by ancient heraldic symbols? Isn't that enough? Not in an undertaking such as the Bologna Process. Another document, both personal and public, is called for; one that functions as an assurance.

The document known as the diploma supplement had its origins before Bologna. From a UNESCO idea first broached in 1979, it came to serious life in a joint project of the European Commission, Council of Europe, and UNESCO. Its shape was refined and officially enshrined in the European education landscape in the Lisbon Recognition Convention of 1997, and it later took its place in the core of the Bologna Process.

What information does a diploma supplement convey, and what does it look like? As in other Bologna Process guidance, what is suggested is a form, not particulars (i.e., both national systems and individual institutions have some leeway in the content and shape of the information provided). In addition to the student's personal identifying information and a concluding certification of the supplement by the institution awarding the degree, the "Outline Structure for the Diploma Supplement"⁸ specifies the following:

1. Basic information about the credential awarded (name of the degree, field of study, language[s] of instruction and examination), and the institution awarding the degree (name, status [private or state], type, and accrediting authority).
2. Information on the level of the credential within its national system (for which a schematic is appended); requirements for entry into the program; and duration of the program (expressed in metrics of elapsed time, equivalent time, and/or ECTS).
3. Information on "the contents [of the course of study] and results gained"—a requirement too often met by the simple insertion of a transcript, a document we would certainly use in the United States, with all courses taken, credits, grades, and guidance for interpreting the grading system.⁹ Inserting (as opposed to appending) a transcript does not contribute to the coherence of a section that requires information on the following—

⁸ For additional information, see www.ec.europa.eu/education/policies/rec_qual/recognition/ds_en.pdf.

⁹ Transcripts of records did not exist for most European countries before Bologna. As one might expect, there are considerable variations in grading systems across the countries involved in the Bologna Process, including unique scales (e.g., "10–20 marks," 4–10, 3–1, 0–13). U.S. transcripts are accompanied by guidance for interpreting grades, but it usually applies to letter symbols such as X, Z, Q, and M.

- Modes of study, including enrollment intensity (full-time or part-time) and distance learning.
 - Requirements for the degree, including internships, theses, and final projects.
 - Indications of superior performance (we would call these “compressed signals”) such as honors.
 - A discipline-level qualifications framework statement, which should be prominent and universal on diploma supplements, but is rarely found.
4. A statement of the purpose and function of the credential.
- Does the credential represent preparation for the labor force (for what types of positions) or for further study (at what levels)?
 - Does the credential also confer status in a regulated profession, licensure, or title?
5. Additional information. The guidance for diploma supplements specifies more information about the credential and the institution. Additional information about the *student’s* experience turns up only in a reference to any period of study in another institution or country.

While a diploma supplement accompanies a credential awarded to a student, it is far more a statement about the institution awarding the diploma and the national system in which that institution sits than it is about the student. For an employer, information about the institution and the system is necessary, but it is secondary to information about the candidate for the job. The transcript portion of the supplement, whether included in the text or appended, can tell the employer (or the university in another country that is considering the student for admission to the next degree cycle) something about the content of the degree program and the student’s performance in that content, provided that the transcript is instantly transparent. But the transcript does not necessarily carry other information about the distinctive aspects and tones of students’ qualifying activities, either curricular (e.g., a description of the final project or thesis), cognate (e.g., passing a certification examination or earning a license outside the formal program), or co-curricular (e.g., documented projects carried out by the student that directly used the knowledge and skills developed in the major program, no matter where those projects were located).

Our European colleagues had an attractive idea in the diploma supplement, because diplomas themselves say nothing about the institution and very little about the student, yet we place an enormous trust in their symbolic power. So something else is needed. The national system needs that “something else” to verify its responsibility and oversight of the credential awarded within its borders. The institution needs that something else to reinforce the legitimacy of its programs. Most of all, though, the student

needs that something else to tell the story of his or her unique achievement and to enable international mobility for purposes of further study or work. It is a matter of certified and transparent evidence, conveyed in a concise and direct manner. But as one reads through examples of diploma supplements from a range of countries, only one of the three parties to the document—the national system—is well served. The attractive idea needs some serious revisions in practice, and this is where a U.S. version of the diploma supplement can help clarify what is at issue.

RECONSTRUCTIVE RECOMMENDATION #4
WE CAN DO IT BETTER—AND SO CAN THEY
Every institution of higher education in the United States, public and private, should design a parsimonious supplement to the degrees it awards that serves as a simultaneous warrantee of the institution’s programs and standards and the student’s unique degree-qualifying profile.

As a first principle for rethinking what a diploma supplement can do, this policy brief suggests starting with the student as the principal actor, subject, and ultimate beneficiary of the document. Taking this advice, along with some compelling features of European intent, how might a U.S. version of a diploma supplement fulfill the function of this warrantee in a parsimonious manner while certifying the full color of the student’s achievement? However much some may resist the notion, we also need to put institutions of higher education on public record in terms of their standards for degree qualifications, as our previous reconstructive recommendations have suggested, and hold them to consistency in these critical matters. As borders diminish even more as factors in labor markets, as the scope of human betterment (let alone survival) expands from the neighborhood and village to the planet, our students will need all the help they can get to join others in both work and the unavoidable confrontation with global conditions, and they will need convincing evidence to join. It all comes together—system, institution, major program, and student—on a document such as this.

We recommend a “legible” U.S. diploma supplement that contains the following:

- 1. Standard boilerplate on the name of the credential, field of study, institution and its type and status (using the Carnegie classification system), institutional accreditation information, and program accreditation (if applicable).**
- 2. A statement of the utilitarian purpose of the degree granted in the field in which it was granted; for example, as preparation for the next level of study or as preparation for work in specific occupational fields, industries, or public service areas.**
- 3. Nonstandard boilerplate indicating (a) all other institutions attended by the student from which credits were accepted and applied toward the credential (including study abroad), and (b) the percentage of the student’s credits that were earned at the institution awarding the degree.**
- 4. A statement of the way in which the student came to the institution (e.g., from high school, by transfer, through assessment of prior learning).**
- 5. If the state or institution has implemented a qualifications framework for the degree level in question, reference it and put the framework in an appendix.**
- 6. Specifications of program requirements in the major field. There are a number of ways to represent these requirements: catalogue statements of objectives in the major, a Tuning-type disciplinary qualifications framework statement (preferred), a list of credit distributions by subfield/cognate fields in the major, and so on. If internships and/or theses and/or comprehensive examinations are required, this is where to indicate those facts.**

7. Markers of student achievement, curricular and co-curricular. This is a substitute for the European diploma supplement’s “additional information” section and is the most individualized section of the suggested U.S. version. It would include—

7.1. Any compressed signals of superior academic performance (e.g., Phi Beta Kappa, graduation with honors, number of times on Dean’s List).

7.2. Title and short description of student’s thesis or final degree-qualifying project, if applicable.

7.3. Any external certification examinations passed or licenses granted to the student. Although the institution is not the awarding body in these cases, the institution certifies that it has recognized and recorded them.

7.4. A maximum of two noteworthy and documented services performed by the student for the institution and/or its surrounding community.

7.5. Student research, creative, or service participation, if applicable. Field, title of project, and faculty sponsor. The key to validation for this entry is the faculty sponsor.

7.6. Documented proficiency in languages other than English. Indicate language(s) and method of documentation.

Is a U.S. diploma supplement adopted by one or more state systems worth the effort? Just as the Tuning project spread to Latin America, the diploma supplement has been taken up in Australia. The Australians began studying the diploma supplement phenomenon in 2002 and initiated a trial in 2005. On the basis of the learning from that trial, the Australian Department of Education, Science, and Training drafted three potential templates,¹⁰ and

has commissioned a project involving 14 universities to produce a final format and content specifications, with recommendations for linking data systems, closing gaps in records, and estimating workload and costs.¹¹ Time from first inquiries to implementation: eight years. In academic time, that’s not bad, and Australia will not be the last national system outside Europe to take the diploma supplement seriously. There must be a reason, and perhaps we ought to listen. ☞

¹⁰ Australian Government: Diploma Supplement,” available at <http://aei.dest.gov.au/AEI/GovernmentActivities/DiplomaSupplement/default.htm>.

¹¹ “Australian Higher Education Graduation Statement,” available at www.une.edu.au/chemp/projects/dipsup/index.php.

Conclusion: What's the Theme of Learning from Bologna?

The primary story line of all our work on the Bologna Process is about providing students with clear indications of what their paths through higher education look like, what levels of knowledge and skills will qualify them for degrees, and what their degrees mean. These are road signs that are sorely lacking now in the United States, were not adequately addressed by the Spellings' Commission report, and have not been adequately addressed to date by the responses of the higher education community to that report. "Student success" does not mean merely that you have been awarded a degree, but that you have learned something substantial along the way and that the world knows what you have learned, what skills you have mastered, and that you have the momentum to meet the rising knowledge content of the global economy. This public evidence does not derive from administering a test to a sample of students to prove that an institution "adds value" to something that, at best, is indirectly taught. As Milena Bevc of the Institute for Economic Research in Ljubljana, Slovenia, said, "[K]nowledge distribution is not measured by a PISA test."¹² The distribution of knowledge is the primary function of all institutions of higher education in all societies and economies in which they exist. If your discipline, institution, and system have established and publicly promulgated clear and discrete criteria for learning and thresholds of performance, that evidence, in itself, creates a powerful endorsement. When it is backed by a diploma supplement, you have a public warrantee.

Along similar lines, we argue that the development of these road signs in qualifications frameworks, revisions in the way the credit currency is established, and meaningful public documentation of learning—all of which have been demonstrated by the Bologna Process—would have a reconstructive effect on state systems and individual institutions in the United States. Some of our colleges and universities will say that they already have degree qualification statements that read like those developed in Europe, and some will say that they differentiate levels of credits by the degree of challenge in courses. We certainly can point to exemplary practices. But we do not engage in these exemplary practices systematically, and we do not engage in them to scale.

We trust that U.S. readers recognize the hard work and sustained effort involved in going to scale with systemic reform, but we hope they are inspired to do so by European colleagues and European students who have been at it for a decade. They celebrated success and recognized shortcomings in 23 major languages and 46 major traditions with all their idiosyncrasies, moving from differentiation to agreement. In the meantime, nations outside the "Bologna Process 46" have studied and begun to adapt some of the core features of the European reconstruction. They do so not to imitate but to improve within their own traditions. In doing so, they link themselves to an emerging paradigm in which the smart money is on cooperation and conversation. Joining them is not such a bad idea. ☞

For U.S. public policymakers, the primary message to students translates into worrying less about how many pieces of paper we pass out, how many credits qualify someone for those pieces of paper, and how long it takes a highly mobile student population to arrive in a graduation line, and more about the knowledge, the application of knowledge, the information identification and retrieval skills, and the degree of learning autonomy students acquire and take with them into economic and community life. That's something U.S. policymakers and academic leaders who simply want students to finish degrees as fast as possible (and for whom persisting part-time students are a paradoxical anathema) should think very seriously about.

¹² Program for International Student Assessment—a battery of assessments in reading, mathematics, and science developed and administered to 15-year-olds in 30 countries that are members of the Organisation for Economic Co-operation and Development (OECD) and 33 partner countries. For an overview, go to www.pisa.oecd.org/dataoecd/51/27/37474503.pdf.

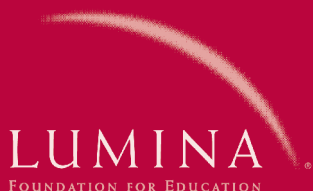
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Lumina Foundation for Education, an Indianapolis-based, private foundation, strives to help people achieve their potential by expanding access to and success in education beyond high school. Through grants for research, innovation, communication and evaluation, as well as policy education and leadership development, Lumina Foundation addresses issues that affect access and educational attainment among all students, particularly underserved student groups such as minorities, first-generation college-goers, students from low-income families and working adults. The Foundation bases its mission on the belief that postsecondary education remains one of the most beneficial investments that individuals can make in themselves and that a society can make in its people.



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