Assessment Implicit; Assignments Explicit: Tuning and the DQP

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Why the World is Awash in Statements of Qualifications for Educational Credentials

- A mode of reassurance on the efficacy of public and private investments in the distribution of knowledge;
- A mode of clarification to students on the nature and ends of the paths on which they set out;
- Prods to convergence among providers of education, who otherwise have no reference points for shaping and judging their delivery.
Where do we see QFs in this world?

• In higher education, either completed or in progress across all 47 participants in the Bologna Process—from Cork to Vladivostok.
• Vertical frameworks from kindergarten to doctoral levels, either completed or in progress in the 27 countries of the EU;
• Australia, South Africa, selected Canadian provinces.

Now, just because the Irish and the Danes and the Brits and the Germans, etc. do these things doesn’t mean we are compelled to follow.
But we did, first, with Tuning: a Prolegomena to Degree Qualifications Frameworks

- Started in 2000 outside Bologna, and folded into it in 2005
- Simultaneously, the EC required all its Thematic Networks with academic components (e.g. Engineering, Performing Arts, Social Work) to include the Tuning process in their work.
- Tuning began with 9 disciplines in 137 institutions in 29 countries. It’s now in 28 disciplines in at least 37 countries (I don’t have the Thematic Network memberships which would push the number of participating universities close to 1000).
What is Tuning? What does it do?

- Puts together faculty teams from a number of universities first, to agree on templates of key reference points in their fields that any degree program should cover. The idea of a “template” is convergence, not standardization.

- And then to write student learning outcomes based on the reference points.
Tuning (continued)

- The process at both stages involves surveys of employers and discussions with former graduates (and the Thematic Networks automatically include professional organizations, learned societies, and industry associations, so those perspectives are accounted for).

- To repeat: the reference points may be common, but not exclusive. Student learning outcome statements may vary widely. This guidance was carried forward in the U.S. into the DQP process.
Whatever the field, the template covers:

• **Foundation and history of the field**
• **Structure of field and its sub-fields and relationships to other fields**
• **Communication of information and theories**
• **Methods, techniques, and critical analysis**
• **Criteria for evaluating field-related research**
• **Assessment is assumed as a private faculty matter, but never addressed directly. Sometimes we see general statements, but nothing that links outcomes to their documentation. As best, assessment is implicit in Tuning.**
Tuning Illustration: Business

- The “firm” as a “value chain” from procurement to customer service is part of the template.

- Representatives from 15 universities in 12 countries speaking 10 languages agreed to this.

- What happens next in terms of learning outcome statements is critical, and these were grouped in terms of

  - (a) “Core knowledge,” e.g. operations management, (b) “supporting knowledge,” e.g. law, IT, and (c) communication skills, e.g. languages, presentation modes.

- You figure out where assessment goes.
No wonder learning outcome statements are a swamp. You get:

- Statements that are not really competencies, e.g. “..able to discuss in an informed manner, the implications of. . .”;
- Statements so vague as to be meaningless, e.g. “. . .able to apply the knowledge to solve qualitative and quantitative problems of a chemical nature”;
- Statements that do not tell anyone precisely what graduates of a program are supposed to do, e.g. “. . .able to conduct a whole range of laboratory procedures. . .”;
- Statements of the obvious, e.g. “. . .student should be able to undertake appropriate further training or study. . .”

I didn’t make up these judgments. They come from a 2007 external evaluation of Tuning by a Dutch research group. None of the statements are operational, hence none of them are assessable.
After Tuning spread to Latin America in 2005, we got “Tuning U.S.A.”

• Illustrates the connection between research sponsored by a foundation (Lumina) and foundation programs grounded in that research.

• If we were going to start the process of degree clarification in the U.S., the disciplines and their faculty were the most promising nutritional environment.

• And we tended to follow the European process, BUT...
Differences between U.S. and European “Tuning”

• We relied on state systems (Indiana, Minnesota, and Utah to start, then Texas and Kentucky), and with the flagship state university on every panel.

• We have community colleges in with state systems, and include associate’s degrees in Tuning;

• We have a student on every discipline panel.

• We obviously work in one language, which, in the matter of learning outcomes, makes things easier.
Each participating state system chooses a limited number of disciplines, e.g.

- History (Indiana and Utah)
- Biology (Minnesota and Kentucky)
- Elementary Ed (Indiana & KY)
- 4 Engineering fields (Texas)
- Graphic Arts/Design (Minnesota)
- Physics (Utah), Business (KY), Chemistry (IN), Nursing (KY), Social Work (KY)
If you want to learn what the products of Tuning look like

• and how they differ from a generic degree level qualifications structure,

• You need to do a little home work.

• It’s all on-line at “Tuning Educational Structures in Europe,” then

• Get a sample of “Tuning USA” reports, e.g. Chemistry from Indiana; History from Utah
Once Tuning USA had moved ahead for 9 months. . . 

- Lumina decided to put a Beta version Degree Qualifications Profile (DQP) on the table, i.e. our version of a Euro Qualifications Framework;
- 4 long-time higher education analysts, each from a different background (and including 2 who had published on Bologna and QFs in other countries), were asked to draft the document.
- Connections to pre-collegiate reforms were minimized; connections to objectives of increased degree production were precluded. This was about ensuring the competence-based transparency of higher education’s major degrees.
The Beta-DQP reflects a great deal of learning from the European experience---and from U.S. contexts

- The “ratchet principle,” under which all competences are set forth in increasingly challenging forms from Associate’s to Bachelor’s to Master’s degrees follows the QFEHEA schema.
- Unlike most European versions, the competences are expressed as true learning outcomes, with verbs dominating the outcome statements (schoolyard brag: we did it better!);
- Unlike other frameworks, the Beta DQP is explicit in proposing that students who do not meet competency thresholds will not be awarded degrees, though this feature was softened in the final text of the DQP.
- No battles between vocational (our preferred phasing is “occupationally oriented”) and academic: the competences are written to encompass both.
Generally, when a Non-Governmental Organization (NGO) starts a process such as the DQP...

- Federal and state governments are pushed away or to the background.
- But other organizations must be supported to continue the process.
- The agencies in the U.S. with the most leverage are the regional accrediting associations, and 3 of the 6 regional accreditors are among the initial engines for the progress of the DQP.
- The organizations with the second greatest leverage are state higher education systems, and Oregon is about to be the lead state in exploring the potential of a DQP. The others are watching.

All the initial efforts are for 2 or 3 years; if responses to these explorations are positive, the entire undertaking will take a decade to reach “critical mass.”
Learning outcome statements and the DQP: What is truly transformational

• These are operational competence statements
• “Operational” means real verbs that describe what students actually do, and that lead directly to assessment.
• “Dead end” nouns such as “appreciation,” “awareness,” “ability,” and “critical thinking” are not part of this vocabulary.
• Why? Because they do not lead directly to assessments (assignments, exam questions, performances, projects) and, in the DQP world, sample assessments must accompany each adopted statement of required competence!
Where we really departed from the Europeans: why we called it a “Profile?” And what do we expect will happen?

- The U.S. higher education “system” is a lot more diverse than is typical elsewhere and, at least to some extent, we value this diversity. “Framework” is out of place in this environment.

$ “Profile” defines the shape and basic parameters of the outcomes statements, but not the portrait itself:

- Institutions or consortia of institutions or state higher education systems can add new elements and tailor the content of the DQP statements to match their missions.

- We tell them they are Kahlo, Dürer, Van Gogh, Stuart: finish the portrait, but you are confined to the same palette of active, concrete verbs!!!
So what the DQP really provides is a framework for a process

And we may eventually find 40-50 analogous-but-not-identical versions of the DQP.

We will live with such an outcome: it is infinitely better than what we have now.
What can our IHEs use the DQP for?

• To ground the award of a given degree in specific competences (credits become merely an accounting metric; grades are a separate issue), the public statement of which becomes a de facto degree warranty.
• To provide a template for learning contracts between students and institutions
• To align standards for inter-institutional transfer.
• To support the quality assurance (accreditation) process.
• To guide the development of new assessments or the tweaking of existing assignments, embedded in teaching and learning---thus reaching all students, and not added on at the end of a course of study to a sample of volunteer test-takers.
How does this work? An ideal but hypothetical process, part I:

• An institution adopts its own version of the DQP for bachelor’s and master’s degrees

• Of the original structure, it (a) folds Civic Learning into Applied Learning, and (b) adds a set of concrete learning outcomes under “ethical reasoning and personal development”
Hypothetics continued, Part II

• At the Master’s level, the institution leaves a blank under “Specialized Knowledge” for each of its major divisions to insert up to 6 generic learning outcomes appropriate to the assumptions of those fields, e.g. science, fine and performing arts, education, allied health/nursing, business.

• These outcome statements must use the same palette of active verbs and should be different---though allied---to any outcomes required by specialized accreditation.
Hypothetics, Part III

• At the bottom line, the institution posits 37 learning outcomes for the bachelor’s; 33 to 35 for the Master’s;

• Of the 37 for the bachelor’s, 16 are taken directly from the original DQP document, 15 are variations, and 6 are new
Enter Assessment

• Each faculty member is asked to identify the learning outcomes on the list that are addressed most strongly in his/her courses.
• For each of those outcomes, the faculty members are asked to think of assignments they currently use that elicit student behaviors that can be judged in terms of the learning outcome statements.
• Obviously, these assignments can include test questions, papers, performance instructions, lab exercises, etc.
• Since faculty are based in the disciplines, what they offer explicitly is what Tuning did only implicitly.
What emerges?

• A Beta list of “assessments” selected by faculty themselves.

• For any one faculty member, perhaps 2 or 3 of the 37 student learning outcomes are addressed by the Beta examples.

• And some of these need to be tweaked to elicit the matching behavior.

• All of these assessments---existing, new, “tweaked” require faculty review, so you need a panel that does that, and conducts a friendly discussion with the proposer.
Simplifying, but at the end of the day, you get. . .

• Perhaps a dozen qualifying assessments for each learning outcome, spread out across the curriculum.

• More can be added; after all, all faculty would like at least one of their assignments to be in the qualifying bin.

• In this example, rubrics of performance and grading are left in the hands of individual faculty.

• Later on, one might add descriptions of performance that go beyond learning outcome statements to specific rubrics, but grading---judging the “how well” of performance---is not part of this undertaking.
Sample Assignment Pegged to DQP Competence Areas, I

• Choose one of the following mature companies for both PEST and SWOT analyses: Starbucks, IBM, Toys-R-Us. In each case, a discrete challenge is presented as a prod for both types of analyses. Fill in the classic matrices for both analyses, and accompany those documents with a 10-15 page paper that defends your selection of the best corporate opportunity under each challenge scenario. Your products are due back in 10 days.

  • Starbucks: Spreading business risk.
  • IBM: Rectifying thin supply chain.
  • Toys-R-Us: Overcoming niche demography

• Master’s level: Applied Learning and Analytic Inquiry.
Sample assignment, pegged to DQP competence areas, II

- We will schedule a series of your presentations, both visual and verbal, of 2-D works relying on different sources and applications of pointillism. A range of 3-5 works is required, though the medium may vary (oil, watercolor, charcoals, print, photo, graphic, lithograph), along with technique, e.g. micromontage, stippling. Your oral presentation should discuss why you picked each medium you used, and what trade-offs you found in the course of execution as a result of those choices. Your oral presentation should also cover the historical spasms of interest in pointillism in 19th and 20th century art, and the optical principles on which it is based. You will be questioned and evaluated by your colleagues in this class.

- Bachelor’s: Specialized knowledge and communication.
Sample assignment, pegged to DQP competence areas, III

• You are presented with six parallel graphs, three presenting data from a point in the Pacific Ocean near Midway Island; three presenting data from a point in the Southern Ocean between New Zealand and Antarctica. The abscissa in all six cases is a month-by-month calendar, January to December. The solid line on all graphs represents the concentration of phytoplankton (for this exercise, it doesn’t make any difference which variety of phytoplankton is at issue) in the marine waters in question. The graphs are paired by the concentration of distinct elements in the waters: two parallel graphs for nitrates; two for phosphate, and two for iron. The dashed line in all these cases represents the concentration, with the appropriate scale indicated on the ordinates.

• What do these curves suggest about the processes that relate the concentration of phytoplankton to each element? How much of a difference does the place of measurement make in these processes? Which of the three elements seems most critical to the survival of phytoplankton in the food chain? This is a 30 minute examination question. Bullet your answers.

• Associate’s: Broad integrative knowledge. Illustration of core concepts while executing an analytic task [well, there’s a lot of synthesis here, too]
As for students...?

- They can satisfy a competency requirement at any time;
- They see the list of competencies and examples of assessments on entrance.
- When they complete a qualifying assessment, it’s entered in a record-keeping system, by the faculty member.
- If the faculty member finds that the box is already checked, well, then they just move on to the next student.
- When the whole list has been checked off for the student, it becomes part of the standard Degree Audit for graduation.
Operational Challenges

• Every competence requires a sample of assessments that would validate it.

• So faculty have to nominate assessments they use, can tweak, or create, and these, in turn, have to be validated and recorded.

• An individual faculty member does not cover all competences or assessments, just those that would most likely emerge in his/her instruction.

• All this means a new record-keeping system, separate from standard transcripts---just like Diploma Supplements.
One could continue, but the point is that

• When one starts working through all of these challenges in the context of competence-grounded criteria for the award of degrees, one learns more than one ever imagined about instruction, assessment, and curriculum---what’s redundant, what needs to be sharpened, what you can say to students about what should happen to them and how.

That’s not a bad idea to begin with!!!