Intentionally evaluating course and project design for achieving global contextual learning

Laura E. Fitzpatrick
Rockhurst University

Cheryl McConnell
Rockhurst University

ABSTRACT

Students must be educated for a globalized, integrated world. Such preparation requires deep knowledge, critical evaluation, and cultural awareness. This is not a new idea among internationalists. What has been rapidly changing, however, is the understanding of how making connections for a globalized, integrated world requires intentional focus on higher level learning. This challenge can be addressed through an understanding of cognitive learning levels, critical thinking, and the examination of socio- vs. non-sociocentric thinking. The authors term teaching to these three essential components global contextual learning. To be successful in global contextual learning, students must be able to reach the higher levels of cognitive learning, while engaging in critical thought in a non-sociocentric way. In order to do this, course design, content presentation, and course assignments and projects must all be consciously created with this goal in mind. In this paper, the literature in these areas is examined, and the concepts are applied to an existing business course and course project to demonstrate how to evaluate whether the course and project are designed to achieve global contextual learning. The rubric described that maps to the course and project learning goals can also be used as course embedded assessment to assess student achievement of the global learning goals.

Keywords: globalization, critical thinking, sociocentricity, cognitive learning, assessment

INTRODUCTION

The purpose of education is to better prepare students for their world, and more than ever that world is grounded in globalization. The interconnectedness of the world is exhibited in almost all facets of student lives from what they wear, eat, listen to and on, where they work and the business their employers engage in, and to factors affecting their country's politics, economy, and environment. Students must understand and function in this world, and it is the job of educators to prepare them in this way. Preparing students for an interconnected world is not simply teaching geography and country facts. It is not just having a surface understanding that all countries, cultures, and peoples have differences. It requires deep knowledge, critical evaluation, and cultural awareness beyond the surface level. This is not a profound position to proffer. Those fostering global topics, courses, and fields have called for this for decades. What has been rapidly changing, however, is the need for nearly all faculty and students to be soundly conversant in the global realm. For faculty, that means a global perspective is part of every course -- be it the focus of the entire course or simply contextualizing in part of the course. Yet many faculty members are not trained to prepare students in this way. Further, even some of those who are, may not be reaching the cognitive and critical thinking levels necessary to prepare students for our increasingly interconnected world. This challenge can be addressed through course design focusing on cognitive learning levels, critical thinking, and the examination of socio- vs. non-sociocentric thinking. The authors term teaching to these three essential components global contextual learning. To be successful in global contextual learning, students must be able to reach the higher levels of cognitive learning, while engaging in critical thought in a non-sociocentric way. Without this last part as well, students risk remaining sociocentric thinkers and as such they cannot be truly prepared for the world that surrounds them now and awaits them as they enter the professional world. In order for faculty members to achieve this, course design, content presentation, and course assignments and projects must all be consciously created with this goal in mind. In this paper, the literature in these areas is examined, the concepts are applied to an existing global course, and course projects are evaluated to demonstrate when global contextual learning is attainable and when it is not. It is such conscious design, course reexamination, and assessment of learning that increases the likelihood of students achieving global contextual learning objectives.

CREATING A CONTEXT FOR GLOBALLY CONTEXTUAL LEARNING: BLOOM'S TAXONOMY, CRITICAL THINKING LEVELS, AND SOCIOCENTRIC THINKING

What constitutes adequate preparation for students for the global world in which they will be expected to function? Obviously there is an ideal where students would have achieved sufficient language facility and international experience to be able to function personally and professionally in another culture. While this is attainable for a few students, it is beyond the reach of many students financially and/or programmatically, and again, while some universities have taken the approach that leads to this on a broader scale, most are still limited in doing this because of either curriculum or resource constraints. However, students still need to gain these capabilities and universities must persist in the face of all of these constraints. What then becomes necessary is to establish standards for achievements within these limitations as a base,

while continuing to pursue additional opportunities for both the students and the university. Global contextual learning requires students to engage at higher levels of Bloom's taxonomy and critical thinking, and non-sociocentric thought.

Bloom's Taxonomy

Benjamin Bloom (1956) developed a taxonomy that gives an instructor a valuable resource for designing opportunities for student learning by outlining and elaborating on "a hierarchy of educational objectives…which attempts to divide cognitive objectives into subdivisions ranging from the simplest behavior to the most complex." (Carneson, Delpierre & Master, 1996) According to Bloom, the most basic level of cognitive learning is at the knowledge level, followed by comprehension, application, analysis, synthesis, and finally, evaluation. These levels with their corresponding objectives, behaviors, classroom activities, and pedagogy types provide an excellent roadmap for course design and related learning objective assessment.

At the knowledge level, a student would be able to recall material, including the definitions, identification of concepts, and remembering of facts. This can be described as remembering information with no deeper application or use of the information. The second level of the hierarchy, comprehension, is only slightly more cognitively difficult than knowledge. "Comprehension is defined as the ability to grasp the meaning of material…These learning outcomes go one step beyond the simple remembering of material, and represent the lowest level of understanding." (Carneson, Delpierre & Master, 1996) Comprehension questions require the student to be aware of the context from which a fact or definition or concept is derived. Again, at this level there is not a high cognitive achievement. Students are still recalling information, but at a slightly more sophisticated level since they are expected to translate information into other forms.

Application is the level at which students begin to take what they have from the first two levels and use it in a meaningful way, that is to begin creating something from what they have gained in the knowledge and comprehension levels. At this level students transfer lower level learning into new contexts or apply it in new situations. In the analysis level, students go beyond the application level of the hierarchy as they "break down material into its component parts so that its organizational structure may be understood." (Carneson, Delpierre & Master, 1996) Students at this level need to have competence at the previous levels in a topic to perform at the analysis level as they not only understand and apply content, but also analyze relationships between different parts of content.

The fifth level of the hierarchy is synthesis. Synthesis involves the creation of something new from the cognitive achievements of the previous levels or in other words, combining learning from lower levels to formulate new information. Finally, in the evaluation level a student is expected to judge that which they are applying, analyzing, and/or creating. "Learning outcomes in this area are highest in the cognitive hierarchy because they contain elements of all the other categories, plus conscious value judgments based on clearly defined criteria." (Carneson, Delpierre & Master, 1996) By using this hierarchy to understand the processes of student learning, one can design courses and course interventions that build student learning from all levels to ultimately achieve the highest kind of learning.

Critical Thinking Levels

Reaching higher cognitive levels as outlined by Bloom obviously requires greater student capabilities and demonstration of those capabilities. Identification of varying levels of capabilities has also been the focus of much literature on critical thinking. While some may disparage the focus on critical thinking in higher education (see Whitaker, 2002/2003), there is great support for identifying and developing critical thinking because it leads to better educated students in all aspects of their lives. Paul and Elder (2006) note that

> Critical thinkers are clear as to the purpose at hand and the question at issue. They question information, conclusions, and points of view. They strive to be clear, accurate, precise, and relevant. They seek to think beneath the surface, to be logical, and fair. They apply these skills to their reading and writing as well as to their speaking and listening. They apply them in professional and personal life. (Paul and Elder, 2006, p2)

Results of developing critical thinking in students include essential questioning, information assessment, clear reasoning, and openness to using "alternative systems of thought" in solving "complex problems." (Paul and Elder, 2006, p4) These goals and outcomes of the development of critical thinking clearly correspond to the higher levels of Bloom's taxonomy, which implies that students must progress through the lower levels of cognitive skill development in order to begin to develop the critical thinking skills that allow them to operate at higher cognitive levels and engage these critical thinking skills.

Barnett (1997) has outlined levels of critical thinking that the authors map to Bloom's cognitive levels to help make the connection between cognitive learning levels and critical thinking in the global context. Barnett's levels can be summed up as critical thinking (basic cognitive skills in an area), critical thought (the application, analysis, and synthesis of information in an area), and finally critique (evaluation of the outcomes as well as the theory used itself). Key in this approach is not just that students attain basic competence within their field of study, but also that students are able to reason within that field and then go on to question and critique the approaches used. These generally correspond to Bloom's Taxonomy in the following ways

Critical thinking	↔	Knowledge and Comprehension
Critical thought	↔	Application, Analysis, and Synthesis
Critique	↔	Evaluation

Sociocentric Thinking

With this foundation for understanding both Bloom's taxonomy and Barnett's levels of critical thinking, faculty members can begin to set expectations for global contextual learning. Of course at the lowest cognitive/critical thinking levels (knowledge and comprehension/critical thinking), simply learning about other countries/cultures/issues could comprise globalized curriculum for some, but the authors find this unsatisfactory since it is simply the most basic levels of knowledge and thinking. It can be thought of as encyclopedic. Hovey (2004) also rejects this approach or the setting of this goal to meet the needs of a globalized curriculum. While the knowledge is informational, it does not prepare students for the interconnected world.

Most of us would argue that assimilating notions of the global 'other' into existing paradigms and frameworks of knowledge in unlikely to contribute to a widening of knowledge in anything other than an informational sense. Unless we are willing to encompass new perspectives and challenges to our theories and conclusions, we may fail to learn or predict events and outcomes in our interdependent world. (Hovey 2004, p 247)

Hovey, in noting the increasing emphasis from within and outside of the academy for globalization of education or the production of more global citizens through higher education, proposes, that the ineffectiveness of decades of attempts at internationalization can be linked to the common approach that it is simply an 'add-on.' What is necessary is implementation of "critical pedagogy" which can "support educational efforts with disenfranchised communities, with informal community-based education, or with efforts to create a more diverse and culturally inclusive learning environment within the formal university or college context." (Hovey 2004, p 246) The highest cognitive/critical thinking levels are implicit in Hovey's claims for a critical pedagogy.

If we understand that internationalization of the curriculum, integration of international studies across the disciplines, and articulation of global citizenship are not just add-ons, but transformative practices, we can also imagine a spectrum of potentialities within higher education that may range from the reproduction of existing hegemony of Western academic knowledge to a widening and democratization of the community of knowledge construction associated with the academy. (Hovey 2004, p 247)

Issues of globalization and critical thought are also highlighted by Paul and Elder (2009) in what they term the 'problem of sociocentric thinking' or "the degree to which they have uncritically internalized the dominant prejudices of their society or culture." (Paul and Elder 2009, p 22) The results of such thinking are many but can be summarized as viewing only through the lens of one's own culture hence the uncritical elevation of things of that source over those of all others. That is, the student would perhaps be able to learn facts and information about the wider world, the student may even be able to apply them, but the student will be unable to reach higher levels of critical thinking or cognition in a global context because of their inability to evaluate situations outside their cultural value perspective. There can be no true global critique since the de facto position of the student has predetermined evaluative outcomes. This corresponds in part to what Paul and Elder (2009) see as "the failure to see sociocentric thinking as a significant impediment to intellectual development." (Paul and Elder 2009, p 22) They see "sociocentric thinking [as] a hallmark of an uncritical society. It can be diminished only when replaced by cross-cultural, fair-minded thinking—critical thinking in the strong sense." (Paul and Elder 2009, p 22) This rings very much of Barnett's critique level, Bloom's evaluation level, and speaks to Hovey's concerns regarding hegemonic thinking that limits one's abilities to accurately interpret global phenomena. From the educator's perspective this leads to incomplete education in that students, while they may be able to successfully learn content requirements in the classroom and even apply these, but their evaluation will be limited to their cultural lens. An incredibly important result of this is that the knowledge acquired in the classroom lacks meaningful applicability to the world outside the classroom. The student will not have the ability to fully understand, interpret, and analyze information to address problems, formulate policy, and

subsequently accurately evaluate the outcomes of the entire process. They may have knowledge, but will be truly unprepared for the world.

EVALUATING COURSES FOR GLOBALLY CONTEXTUAL LEARNING

So what does this mean in the classroom for the educator who embraces the need to prepare 'globalized' students who engage in critical thinking at the highest cognitive levels? For Jones (2005) the responsibility lies with the educator. Her examination of whether culture determines critical thinking capabilities led to quite the opposite conclusion. Jones finds that "Critical thinking was limited not by cultural background but by context" (Jones 2005, p 351) that is, much of the onus in the development of critical thinking in students is on the teacher. "What teachers do, the way they teach and assess, their styles of thinking, and the ways in which the discipline is constituted by the teacher all have a powerful influence on the ways in which students approach their learning." (Jones 2005, p 351)

For educators this means facing a potentially formidable task, but when systematically broken down this can become far more manageable. As a goal, the authors value students achieving high cognitive levels as well as engaging in critique, the higher critical thinking levels, all while developing the facility to do both cross-culturally. To determine the degree to which students are accomplishing this, one must evaluate the teaching and classroom context within which these outcomes are sought, and systematically assess student achievement in these areas. This requires introspection on the part of the instructor for the former, as well as an organized approach to evaluating student achievement for the latter.

To determine the degree to which the course objectives and assignment design is consistent with achieving the higher goals, and to determine to what degree students are achieving the learning goals, a three step process is optimal:

1. Map the course learning objectives to Bloom's Taxonomy levels, critical thinking levels, and to whether non-sociocentric thinking is required.
2. Map the course project or assignment rubric to the same three criteria, and evaluate whether the project or assignment is meeting the desired level of global contextual learning. Modify the project or assignment based on the mapping results.
3. Use the course project or assignment rubric to assess student learning and classify the results as to Bloom's levels, critical thinking levels, and non-sociocentric thought to determine whether students are achieving the higher learning levels desired.

Example of Evaluating Course and Project Design

At the authors' institution, an upper-division introduction to global business course is required as a part of the business degree. This course has a common syllabus, learning objectives, and common course project in the form of a structured research paper with clearly outlined rubric expectations. In step 1, course learning objectives are mapped to Bloom's Taxonomy levels, critical thinking levels, and to whether non-sociocentric thinking is required.

Common learning objectives for all sections of the course are as follows:
After completing the course, students should be able to:
- Identify the reasons for and growth of international business.
- Explain how political, cultural, legal, and economic factors affect international business.

- Critique the ethical dimensions of international business operations.
- Calculate foreign exchange rates, and explain how foreign exchange markets affect international businesses.
- Define the growing emergence of trade organizations and the impact these groups are having on international trade and investment.

Table 1 shows how these learning objectives can be matched to the elements described earlier. In this example, mapping reveals that students in the course can potentially reach all cognitive levels, all critical thinking levels, and non-sociocentric thinking is required to achieve course learning objectives.

However, achieving course learning objectives also requires faculty members to select appropriate pedagogies and to design assignments and projects that map to the desired outcomes. To assure that the course assignments are targeting the learning levels desired, faculty members should review each major assignment and map them to the Bloom's, critical thinking, and non-sociocentric elements described. In the introduction to global business course used as an example, a research paper is assigned in which students study a company and propose and evaluate how to expand into a new country and global market. Table 2 shows the mapping of the rubric of assignment requirements to the elements described as global contextual learning.

Mapping of the rubric for the research paper to the standards set in the paper reveals expectation of student cognition and critical thinking at all levels, hence analysis of actual student results would demonstrate whether the development of higher level Bloom's and critical thinking levels are actually reached. However, the mapping revealed that non-sociocentric thinking is far less clearly required in the assignment. That is, students potentially can develop high levels of cognition and critical thinking, but this does not necessarily imply that they have reached the highest levels of globally contextual learning. Students may demonstrate great success as measured by Bloom's or Barnett's critical thinking levels, but yet not make this leap in the global context outside of their culturally based knowledge structures. This is simply an extension of Hovey's concerns about low level informational learning. Students may not get out of it what instructors seek for their intellectual development in this interconnected world.

In this case, however, the issue is not being limited to just information levels of learning, for students may achieve high cognitive and critical thinking levels, but they still may fail to achieve globally contextual learning. They can succeed within their cultural constraints while still being limited by hegemonic culturally constructed systems of knowing. Based on this analysis of the course project, additional course assignments and readings were implemented to focus on non-sociocentric thought.

The final step in the course evaluation process is to use actual student performance results from the project rubric to assess student learning. This is an example of course-embedded assessment of student learning. The results could be analyzed in any way that would be useful to the university's assessment program. For example, student performance could be summarized as to Bloom's Taxonomy levels, critical thinking levels, achievement of non-sociocentric thought, or course learning objectives. Actual results would be compared with targeted baselines for student performance to determine whether student learning met the targeted levels and to determine whether course modifications need to be discussed and implemented.

CONCLUSION

Good course design requires intentional thought about the learning objectives, instructional pedagogies, and course assignments and projects. Additionally, achievement of higher levels of learning in the global context requires a focus on the more advanced levels of Bloom's Taxonomy and critical thinking, and an emphasis on non-sociocentric thinking. The three step process described in this paper can help faculty members evaluate their course and assignment design, as well as assist in assessing whether global contextual learning is being achieved.
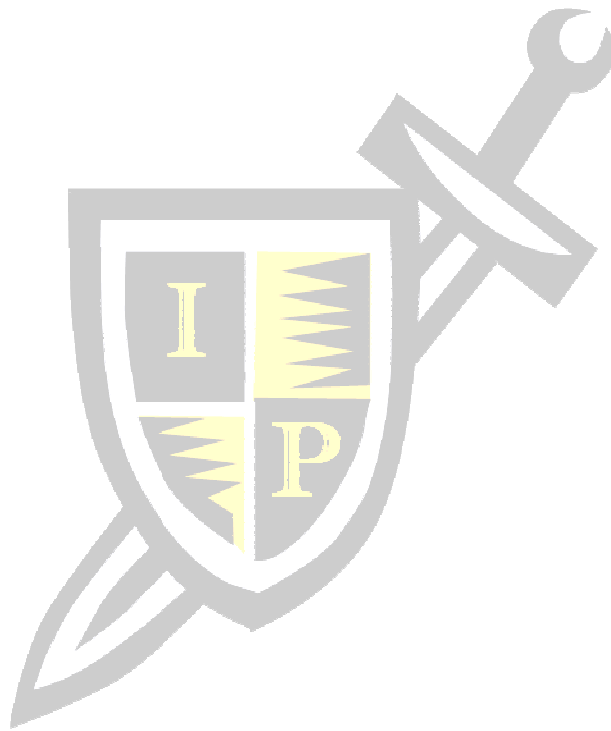
Table 1 — Evaluating Course Learning Objectives			
Course learning objective	**Bloom's Taxonomy Level**	**Critical Thinking Level**	**Non-Sociocentric Thinking Required**
Identify the reasons for and growth of international business.	Knowledge/ Comprehension	Critical thinking	No
Explain how political, cultural, legal, and economic factors affect international business.	Analysis/ Synthesis	Critical thought	Yes
Critique the ethical dimensions of international business operations.	Evaluation	Critique	Yes
Calculate foreign exchange rates, and explain how foreign exchange markets affect international businesses.	Application/ Analysis	Critical thought	No
Define the growing emergence of trade organizations and the impact these groups are having on international trade and investment.	Comprehension	Critical thinking	No

Table 2 — Evaluating Course Project			
Assessment Parameters and Variables.	**Highest Bloom's Cognitive Level**	**Critical Thinking Level**	**Non-Sociocentric Thinking Required?**
COMPANY ASSESSMENT (approximately 2 pages)			
Company background	K	C Thinking	No
Precise definition of the market you will be studying and the implications of this market type for domestic production and global expansion.	AP	C Thought	No
Identify and briefly outline the leading firms in your market domestically and globally.	C	C Thinking	No
Rationale for expansion into a foreign market.	C	C Thinking	No
COUNTRY ASSESSMENT (approximately 7 pages)			
Country Overview			
Why is this country attractive as a potential market?	AN	C Thought	No
Political Variables			
Describe the current political environment in your country.	AN	C Thought	No
What are the major political parties? What party is currently in power?	K	C Thinking	No
Is there a history of radical political change? If yes, comment briefly on why this may be important to your firm.	AP	C Thought	No
What is the ruling party's general view towards FDI, trade, migration, and globalization?	C	C Thinking	No
Is the political climate favorable for market expansion?	AN	C Thought	No
Economic Variables			
Discuss the economic condition of your country.	AN	C Thought	No
Is the country developed or developing? Why?	C	C Thinking	No
Where is the economy currently and is it improving?	AN	C Thought	No
What is the Per Capita Income? How is income distributed?	K	C Thinking	No
Will people be able to buy my product?	AP	C Thought	No
Are you selling to the: upper class, middle class, lower class, all	AP	C Thought	No

classes?			
Describe the nature of competition in this target market. Is the major competition from domestic firms? Foreign firms?	AN	C Thought	No
Trade Variables			
Provide the level of imports and exports as an absolute number and as a percentage of GDP.	AP	C Thought	No
Who are the main trading partners?	C	C Thinking	No
What are the country's major imports and exports?	K	C Thinking	No
What has the country done to attract FDI? Has it been successful?	AN	C Thought	No
Has the government created any new regulations or polices that would make it easier or harder for foreign expansion?	AN	C Thought	No
What tariff and/or non-tariff trade barriers will your company face in selling to this country?	C	C Thinking	No
Does the country have a restriction on foreign ownership levels?	K	C Thinking	No
How is the country rated in terms of corruption and bribery by Transparency International?	K	C Thinking	No
Cultural Variables			
From a cultural point of view- what modifications (if any) will you need to make to your product for it to be successful?	S	C Thought	Yes
What is the demographic profile of your country? —discuss race, age, religion, education, and language. How does this profile affect your product?	AN	C Thought	Yes
From a cultural point of view- how does this country differ from the U.S.?	E	Critique	Yes
How are American products and companies viewed?	AN	C Thought	Yes
Legal Variables			
What legal system do they have? Is it compatible with the US (i.e. how are disputes resolved)?	AN	C Thought	No
Are patents or intellectual property rights a particular concern?	AN	C Thought	No
What specific legal issues that concern you.	AN	C Thought	No
Foreign Exchange Variables			
Discuss the recent fluctuation of the host currency relative to the home currency.	AN	C Thought	No
Discuss how further fluctuations may affect your business.	AN	C Thought	No
ENTRY STRATEGY ANALYSIS (APPROXIMATELY 5 PAGES)			
Explain how and why cost reduction pressures and local responsiveness pressures characterize the market your firm is in. Explain whether which is the best way to organize for your expansion: global, international, transnational, or localization?	E	Critique	No
State and defend what entry strategy you are proposing: exporting, licensing, franchising, joint venture, FDI.	E	Critique	No
Select one of the strategies that you did not defend and explain why it was not appropriate for your company and/or if your company is already in your country, take this opportunity to critique their entry strategy for its strengths and weaknesses.	E	Critique	No
Explain what type of exchange rate regime your country has and its potential impact on your entry strategy.	AN	C Thought	No
Explain if the dollar has been appreciating or depreciating against your country's currency. Graph the results from 1999 to the present and include in your analysis.	AN	C Thought	No
Discuss the interaction between the changes in the value of the dollar and your currency, and your entry strategy. Analyze the impact for your company.	SY	C Thought	No

REFERENCES

Barnett, R. (1997). *Higher Education: A Critical Business.* Buckingham: Open University Press.

Bloom, B. S., Engelhart, M.D. Hill, W.H., Furst, E.J. & Krathwohl, D.R. (1956). *Taxonomy of Educational Objectives: Cognitive Domain*. New York: Longman.

Carneson, J., Delpierre, G. & Master, K. (1996). Designing and Managing Multiple Choice Questions. Retrieved March 30, 2008, from University of Cape Town, website http://web.uct.ac.za/projects/cbe/mcqman01.html.

Carneson, J., Delpierre, G. & Master, K. (1996). Designing and Managing Multiple Choice Questions: Appendix C: MCQ's and Blooms's Taxonomy. Retrieved March 30, 2008, from University of Cape Town, website, http://web.uct.ac.za/projects/cbe/mcqman/mcqappc.html

Hovey, R. (2004). Critical Pedagogy and International Studies: Reconstructing Knowledge Through Dialogue with the Subaltern. *International Relations,* 18, 241-254.

Jones, A. (2005). Culture and Context: Critical Thinking and Student Learning in Introductory Macroeconomics. *Studies in Higher Education,* 30(3), 339-354.

Paul, R. and Elder, L. (2006). *The Miniature Guide to Critical Thinking Concepts and Tools, Limited Download Copy.* Retrieved March 5, 2010 from The Foundation For Critical Thinking Website, http://www.criticalthinking.org/files/Concepts_Tools.pdf

Paul, R. and Elder, L. (2009). *The Miniature Guide to Critical Thinking Concepts and Tools.* Dillon Beach, CA: The Foundation for Critical Thinking.

Whitaker, A. K. (2002/2003). Critical Thinking in the Tower Ivory. *Academic Questions* 16(1), 50-59.