

Curricular culture literacy and miscodes in its absence: making sense of conflicts in cross-institutional curricular collaborations

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Abstract— Cross-institutional curricular collaborations are complex human affairs, and often include instances of misunderstanding and confusion. This work-in-progress paper introduces the concept of curricular culture literacy and employs it as a way of making sense of these “miscodes.” Unpacking these incidents via the lens of curricular culture literacy allows them to be understood and addressed as collisions between two different curricular cultures, which opens up new possibilities for multi(curricular)cultural literacy.

Keywords—*Faculty; cultural literacy; cross-institutional collaboration*

I. INTRODUCTION

This work-in-progress paper is part of a larger body of work on cross-institutional curricular collaborations that looks at curricular change through a cultural lens. In this particular paper, we examine the concepts of “curricular culture literacy” and the “miscodes,” or errors of understanding, that happen in the absence of that literacy. These theories emerged from working with our pilot data corpus, which includes interviews and observations of faculty participating in cross-institutional curricular collaborations that spanned several years and often included examples of conflict and confusion.

For instance, we observed visiting faculty from one institution reacting with concern when they encountered a group from another institution and could not immediately distinguish who was a faculty member and who was a student. The visiting group found it confusing and distressing to not have clear lines of authority; the hosting group thought it was a wonderful indication that they had successfully become a collaborative team. In another example, faculty from two institutions were co-teaching a course and had to adjust their syllabus along the way. For faculty from one institution, this was a sign of poor planning, and consequently, low teaching skill. For faculty from the other, this was a sign of responsiveness to student needs, and consequently indicative of high teaching skill.

The concepts of curricular culture literacy and cultural miscodes give us a way to make sense of these sorts of incidents. In this paper, we begin by introducing the notion of curricular culture literacy, which draws on sociological theories and applies the concept of cultural literacy to the curricular

domain. We then discuss miscodes as errors that occur when individuals have low literacy in a given cultural context, giving several examples drawn from an engineering education context. Finally, we discuss the implications and potential uses of these concepts in the broader picture of engineering education research focused on curricular change and cross-institutional collaborative work.

II. CURRICULAR CULTURE LITERACY

The notion of curricular culture literacy draws from prior work on culture and cultural literacy. Treating curriculum as culture assumes a broad view of curriculum that goes beyond the formal content objectives listed for official courses to include multiple aspects of an educational and formative environment [1]. Taking this broad notion of curriculum and applying Schein’s definition of culture as “a pattern of shared basic assumptions that was learned by a group... [and is] taught to new members as the correct way” [2], we can conceptualize curricular culture as the intersection of the two. In other words, curricular culture is the culture of a group -- their shared basic assumptions -- regarding teaching and learning, and how one should “perceive, think, and feel” in educational situations.

Furthermore, Schein’s description of culture depicts it as operating at three levels [2]:

- Artifacts - visible objects and actions. (Example: the old and new syllabi of a revised course.)
- Espoused beliefs and values - justifications given by members of a culture. (Example: “We revised the syllabus to better fit what our students need now.”)
- Underlying assumptions - unconscious beliefs about reality. (Example: Learning is about responding fluently to the environment around you rather than mastering a fixed corpus of information.)

These three levels of culture exist for all manifestations of a curriculum. If we frame curricular change as culture change, this means that any curricular change has an impact across all three levels: artifacts, values, and assumptions. Members of a given culture will relate assumptions to values and values to artifacts in the same way. Cultural literacy refers broadly to the

ability to navigate and interact with a particular culture in a way that is accepted by members of that culture, even if one does not belong to that culture.

The notion of cultural literacy was coined by Hirsch [3], who gave examples of knowledge a “culturally literate” American would be expected to have familiarity with: Martin Luther King, Jr.’s famous “I Have A Dream” speech, the rules of baseball, and the opening lines to the US National Anthem, for instance. Cultural literacy allows a person to move through that culture while understanding and being understood. Though Hirsch’s work has been criticized as pushing a fixed and Euro/male/normative-centric education onto an increasingly diverse populace [4][5], Hirsch also maintained that literacy in the dominant culture would give marginalized peoples the tools they needed to change it [3].

As with human languages, one’s literacy is always assessed with respect to a specific culture. For instance, US cultural literacy is not the same as Filipino cultural literacy. A culturally literate Filipino might catch references to the Filipino national anthem, understand that certain nicknames refer to certain Filipino politicians, and so forth. Similarly, a person might have different levels of cultural literacy with respect to different cultures. A Filipino arriving in America and an American arriving in the Philippines are both likely to have some degree of culture shock.

Applying the concept of cultural literacy to the setting of curricular culture gives us the idea of “curricular culture literacy.” A faculty member is likely to have native-like familiarity in their own curricular culture. They understand their culture’s surface-level artifacts and cues with respect to teaching and learning, and can perform them fluently. They share assumptions about teaching and learning with other members of their community, although they may not be conscious of it. The same faculty member may simultaneously be in the process of learning another curricular culture through a visiting faculty appointment during a sabbatical. Visitors are likely to have a much lower level of cultural literacy in their host institution. As with linguistic collisions, where the “same” word can be unknowingly interpreted in very different ways (for instance, “Gift” means “present” in English and “poison” in German), curricular culture collisions can lead to misinterpretations and result in conflict.

III. MISCODES

When an incident comes up because of conflicts of interpretation, we identify this as a “miscode.” In other words, a miscode occurs when an incident is simultaneously decoded according to two standards of cultural literacy. The incident makes sense within both cultures, but it makes a very different kind of sense within each.

For example, our pilot observations took place at a small teaching college with a strong emphasis of team projects. The classrooms, which reflected that project-based focus, became a surface-level artifact that was interpreted quite differently by people from different curricular cultures. Studio-style classrooms on this campus were filled with scratched wooden tables, shelves, and bins covered with tangled assemblies of foam, metal, plastic, and wire, with the occasional laptop-sized

clear spot. Sprawls of notes, questions, and diagrams covered the whiteboards that adorned most walls, and almost every vertical space that was not a whiteboard was papered in colorful sketches, drawings, and notes.

Furthermore, to an experienced engineering observer, some of the notes and drawings were technically... wrong: grossly underestimated project timelines, hopelessly vague technical specifications, and sketches for components that would be nearly impossible to manufacture would appear without any indication of critique or acknowledgement of problematization. All these things were in an unlocked room to which anyone on campus could access at any time, and the same room was also proudly shown off to most new campus visitors. We observed that visitors frequently reacted with a combination of both fascination and confused concern.

There are multiple possible interpretations of this set of artifacts (messy workspaces exposed mid-project), and some are negative and/or view the artifacts as signs that the school is not skilled at educating engineers. Based on pilot observations and interviews with visitors, some people might take the classroom environments as indications of a troubling lack of professionalism and a wasteful use of campus resources. These interpretations may come from perfectly logical cultural assumptions grounded in well-informed considerations of what constitutes high-quality engineering education. For instance, engineering educators have argued passionately for improving their students’ professional communication skills [6], and exposing visitors to such haphazard “presentations” could seem like a deliberate flouting or unskilled botching of those skills.

Similarly, engineering educators need classroom space available if they want to increase instructor contact hours, reduce class sizes, and offer a wider variety of courses. From this perspective, it might seem selfish and wasteful to allow an entire classroom to be “tied up” for the whole semester for a single class that benefits a relatively small group of enrolled students. After all, the classroom could be used to teach more courses if it were “cleaned up” in the interim, thus benefiting even more students and giving more instructors access to physical space for pedagogical experimentation.

However, the same artifacts can also be interpreted in a positive light. The messy studio can be read as an attempt to “make thinking visible” [7] via exposure of process, including “wrong” answers and dead ends. Members of a curricular culture that values this type of learning might consider the seemingly “wasteful” space usage to be worth the cost. They may also consider the beneficiaries of the space to extend beyond the immediate bounds of the instructor(s) formally teaching the course and the students formally enrolled in it. Non-enrolled students may be invited by their friends to the studio to see their projects, younger students may drop by to get a preview of their later studies, other instructors may hear stories of what happens in that room, and so on. Instead of framing the classroom as being wastefully “unused” outside of class hours, it can also be framed as being actively available to the campus community as a living museum.

The notion of miscodes allows us to understand why people might interpret the same situation in very different ways. Using Schein’s three levels of culture, we could say that people are

mistranslating between levels when mapping from one culture to another. They might be looking at the same artifacts but making sense of them through different values and assumptions, taking the same values and expecting to see different artifacts, and so on. A surface-level artifact in and of itself is not “right” or “wrong,” “good” or “bad” in an absolute sense. Rather, it is evaluated to be so through a particular curricular culture’s values, beliefs, and underlying assumptions. In the above example, incomplete student projects exposed to the public can be interpreted as both “right” (through the cultural belief that “making thinking visible” is valuable to learning) and “wrong” (through the cultural value of teaching professional communication).

IV. WHAT THE CONCEPTS OF CULTURAL LITERACY AND MISCODES MAKE LEGIBLE

Using the concepts of cultural literacy and miscodes, we can make sense of different kinds of conflicts that come up during curricular exchange collaborations. In our pilot dataset, some examples included the following:

In one curricular culture, instructors who do not specify a semester-long syllabus, or who change the existing one on the fly, were interpreted as unskilled teachers who were unprepared to teach. In another curricular culture, these instructors were interpreted as skilled teachers who were improvising responsively to the needs of their specific students. When instructors from both curricular cultures encountered one another, they miscoded each other’s skill levels and commitment levels to student learning experiences. These differing interpretations may have resulted from assumptions about what level of predictability and uniformity were most beneficial for teaching and learning in a given situation.

In one curricular culture, instructors answering “I don’t know” to student questions, looking up references in their presence, and/or making mistakes while working through a problem they had obviously not prepared in advance were interpreted as unqualified teachers who had not mastered the material they were supposed to be imparting. In another curricular culture, instructors exhibiting this behavior were interpreted as skilled models of mature lifelong learning for the discipline(s) they were teaching. When instructors from both curricular cultures encountered one another, they miscoded each other’s levels of disciplinary knowledge and teaching skill maturity. These differing interpretations may have resulted from assumptions about what the “material to be imparted” consisted of, and whether it was bounded to focus primarily on “correct” content knowledge, and/or whether metacognition and learning-about-learning were explicit or implicit course objectives as well.

In one curricular culture, students ignoring when instructors begin to speak (and instead continuing to work within their project teams) was interpreted as rude and disrespectful towards their instructors. In another curricular culture, the same student behavior was seen as appropriate and interpreted as a positive sign of maturity, engagement, and self-directed learning. When instructors from one curricular culture encountered students from another, they miscoded the respect students were attempting to accord them. These differing

interpretations may have resulted from assumptions about who “owns” whose attention in a given curricular culture, and what that culture uses as signals of respect (i.e. whether lack of attention denotes lack of respect in specific circumstances, and how else respect may be shown).

V. DISCUSSION AND CONCLUSION

By definition, this work-in-progress paper is early-stage work and as such has marked limitations. It is based on preliminary analysis on a dataset of one central institution’s partnerships with others. Data was almost entirely gathered on-site at the central institution, focusing on the exchange partners as visitors rather than hosts. Future work will include the reverse condition, where the other institution serves as the host campus. In this paper, we also largely draw from Schein’s theory of culture [2] as a starting point; in future work we will explore how other sociological theories of culture might relate.

The miscodes above demonstrate the utility of the curricular culture framing, which allows for sensemaking of conflicts that might otherwise be unintelligible. The framing of miscoding also implies that a *conscious* lack of cultural literacy (i.e. knowing one does not understand the other curricular culture, and thus asking for interpretation help) is not necessarily problematic -- it is an *unconscious* lack of literacy (i.e. thinking one is more literate than is actually the case) that leads to miscodes. The ability to frame conflicts as cultural miscodes can also address misconceptions that one curricular culture has answers and the other does not, or that one curricular culture is superior to the other. The framing also suggests that a plurality of curricular cultures may be beneficial, and that optimizing for the one “best” curricular culture is counterproductive. Cultures are particular to the societies and histories they have sprung from, and a diversity of students, industries, geographies, and so forth mean that a diversity of curricular cultures is also needed.

Framing an incident as a miscode also suggests potential resolutions to that miscode. If miscodes are caused by low cultural literacy, then miscodes can be resolved by increasing cultural literacy. Instead of framing somebody as simply “not understanding,” they can be seen as “understanding this in a different way than we do.” This opens the question of why the different groups understand the same artifacts in different ways, and how those different ways of understanding may be variously useful or not-useful, toward what ends, and under what circumstances and assumptions. Through ongoing interactions, including but not limited to empirical validation, one, both, or none of the cultures involved may end up changing or expanding their available interpretations. Future work may investigate how various interventions affect curricular culture literacy among faculty.

If individual faculty can increase their curricular culture literacy both within and outside their home institutions, they may increase their ability to participate in cross-institutional curricular collaborations. Working across different curricular cultures and learning from the differences that come up in “translation” can often become an occasion for both sides learning about themselves [8]. Developing multi(curricular)cultural faculty members (and staff members

and students) is an exciting prospect, as these people will go on to provide their communities -- and our discipline -- with access to different ways of thinking about and enacting teaching and learning.

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