

Title: Being and Becoming a Teacher Educator – The Journey from Content Knowledge to Pedagogical Content Knowledge

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I. Overview



A School of Education professor revamps an established undergraduate TESOL methods course, shifting from a heavily theoretical to a practice-oriented approach to instruction that draws upon real-world pedagogical scenarios.

LEVEL 1 Background.

This portfolio documents my first two years working to develop my own pedagogical content knowledge to become an effective teacher of C&T 331: TESOL Methods. Using insights from Shulman (1986; 1987; 2000), from others who have built upon his writings, and from my participation in CTE's Best Practices Institute, I have documented my efforts to identify, gather and measure student learning in this course to track the development of my pedagogical content knowledge. If students do not demonstrate sufficient learning on these assignments, then I know that I need to either revisit a task or the instructional practices related to preparing students for a task.

Implementation. Based on student feedback after teaching the course my first year at KU, I knew that I needed to re-organize and clarify the major assignments. To do this, I adopted the strategy of backward design to redesign two key assignments. I developed S.M.A.R.T goals for these tasks and created grading rubrics to accompany the assignments. The rubrics were designed to systematically support student learning goals and “generate meaningful evidence...that quickly and clearly reveal which student skills or concepts need further support” (Greenhoot, 2016: 2. *Teaching Matters*).

Student Work. Instead of associating student learning with course grades, I evaluate learning via a discourse analysis of students' written responses on the two revised course assignments. This information more readily provides insight into student understanding and implementation of content and pedagogical content knowledge, as well as dispositional stance towards future / imagined English learners. With this information, I am able to assess whether my instructional practices need to be adjusted to better meet the learning needs of my preservice teachers.

Reflection. This final section sums up key areas of learning and discovery for me over the two academic years of systematically reflecting on and documenting student learning and my own professional development in the area of pedagogical content knowledge as a process of developing this course portfolio for CTE.

LEVEL 2 Background

A recurring area of inquiry in Teacher Education -- the field tasked with training future and current K-12 educators -- addresses the knowledge base preservice teachers (undergraduate students enrolled in the teacher education program) need to develop in order to be effective in their practice. Research in this area has been shaped by educational psychologist Lee Shulman (1986; 1987; 2000; Hutchings & Shulman, 1999), who describes this knowledge base across several categories: 1. content knowledge, which is knowledge of one's subject area (whether it be mathematics, science, history or

composition); 2. general pedagogical knowledge or classroom management and organization; 3. curriculum knowledge; and 4. pedagogical content knowledge or the knowledge specific to the teaching and assessment of that subject area. Shulman argues it is this last category of knowledge that distinguishes the “content specialist” from the “pedagogue” (1987: 8).

Like preservice teachers, new faculty in Higher Educational settings are also confronted with the need to acquire specific knowledge bases as they transition from graduate student to faculty. Yet, graduate programs do not often emphasize or help graduate students develop the professional skills to make this transition smoothly. Instead, emphasis is placed on developing expertise in content knowledge, often at the expense of developing pedagogical content knowledge and the neglect of learning to assess and evaluate the effectiveness of pedagogical strategies and approaches. Therefore, when the opportunity to teach C&T 331 TESOL Methods (Spring 2015, Spring 2016) -- a required preservice TESOL Methods course within the School of Education’s Teacher Education Program – was presented to me I was nervous. Though I possessed the TESOL content knowledge to teach this course, I was thoroughly unfamiliar with the skills, practices, dispositions preservice teachers were expected to acquire in this course and, more importantly, how to help students develop and implement these skills, practices and dispositions with their future students.

The course. In my first year as a new faculty member in the School of Education, I was presented with the opportunity to teach C&T 331: TESOL Methods. Its official course designation is “Instructional Approaches for English Speakers of Other Languages in the Middle/Secondary Classroom.” C&T 331 is a required course for preservice (undergraduate) students in the School’s Teacher Education program. The course is designed to introduce preservice teachers across the middle / secondary content areas—language arts, government, math, science, foreign languages—to the TESOL pedagogical practices used by classroom teachers to support the English language development and academic English proficiency of English learners. These goals, outlined in the course syllabus, identify the acquisition of content and pedagogical content knowledge as primary goals. Goals related to the acquisition of content knowledge typically focus on four areas of knowledge:

1. Academic English proficiency (the linguistic and generic knowledge),
2. Age, innateness, ability,
3. Socio-political, and
4. Family, presence and absence.

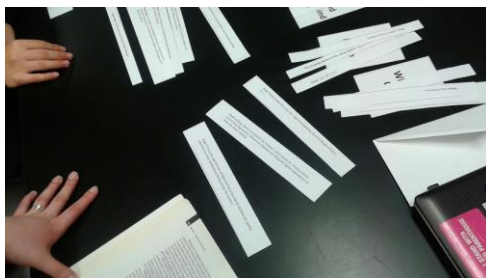
These topics are drawn from themes presented in the course textbook (Diaz-Rico, 2009) and they represent knowledge drawn from a variety of fields that inform studies in second language acquisition, such as linguistics, anthropology, sociology and education. The pedagogical goals are also pretty straightforward; they are drawn from the two main pedagogical approaches in preK-12 TESOL: the Sheltered Instruction Observation Protocol (SIOP) model and an approach known as Specially Designed Academic Instruction in English (SDAIE). Yet, knowing what topics I needed to teach my preservice teachers and possessing the pedagogical skills to help them understand and implement TESOL content and pedagogical practices are what distinguish pedagogical content knowledge from content knowledge.

Pedagogical content knowledge. Pedagogical content knowledge encompasses “[k]nowing ways to unpack, represent, and make...content learnable” (Ball, Thames, and Phelps, 2008) by applying specific and nameable pedagogical strategies. Specific to the area of preK-12 TESOL methods, pedagogical content knowledge includes applying instructional practices such as scaffolding, drawing upon background knowledge, and highlighting and attending to content and language objectives. It also includes knowing how to transform content into meaningful ways of knowing through effective “instructional forms or methods” (Shulman, 1987: 16) – i.e., knowing “how to select analogies, examples, metaphors, and explanations in order to make subject matter meaningful and relevant to their students” (Fradd & Lee, 1998: 762 referencing Shulman 1986, 1987). Developing pedagogical

content knowledge is intimately tied to being well-grounded in a “knowledge of learners” and a “knowledge of educational ends, purposes, and values” (Shulman, 1987: 8). This requires understanding what content and skills preservice teachers have acquired in previous classes before arriving to my course, what they have yet to learn about the science and art of teaching, and who they are as individuals—their predispositions, their attitudes and beliefs, their background knowledge and life experiences. All of these factors impact student learning and acquisition of new knowledge.

The challenge. During the first semester in which I taught C&T 331 (Spring 2015), the course had clearly identifiable student learning outcomes/goals. However, what was missing from the course and my implementation of these course goals were equally clear assessment goals that made students feel confident that what they were learning was exactly what they needed to know in order to be fairly evaluated in class, and ultimately, to be successful teachers beyond the class. This meant making the learning outcomes for the course explicit and reinforced via my instruction and assessment practices, such that what I taught was 1) sufficiently clear and 2) what students needed to learn (it was recognizably a practical and authentic professional task). Participation in CTE’s Best Practices Institute provided me with the tools to meet these goals in time for teaching the course a second time (Spring 2016).

Implementation



To meet the challenges of improving my instructional approach to teaching C&T 331, I drew upon my own background knowledge as a K-12 teacher and upon the strategies and tools acquired through my participation in the Best Practices Institute (BPI). Though I was unfamiliar with the scope and sequence of the School of Education’s undergraduate Teacher Education Program, I did have ten years of K-12 teaching work experience to draw upon. Based on this experience, I knew that as

professional teachers my students would need to be able to: 1. address in writing the academic needs of their students in professional ways, and 2. plan, adapt and teach specifically designed academic instruction for their students.

With this in mind, I set about redesigning two of the course’s major assessments—the High Stakes Assignments and the Mini-Teaching Demonstrations—around these professional needs. The first major task was a redesign of the four High Stakes Assignments assigned in Spring 2015. These four assignments were designed to assess students’ content knowledge and students’ ability to apply that content knowledge to tasks. In Spring 2016, I assigned only three high stakes assignments, and I organized these around real-life professional writings tasks, such as emailing the student support team to recommend pedagogical interventions for a limited English proficiency student. The second task was an expansion of the Mini-Teaching Demonstrations assigned in Spring 2015. The redesign in Spring 2016 required students to submit a post-teaching reflection paper. Together, these two authentic assignments provided a space for preservice teachers to demonstrate the three main goals of the course: content knowledge, pedagogical content knowledge and dispositional stance towards English learners.

In redesigning these tasks, I utilized three instructional design tools recommended by CTE. First, I developed specific, measurable, achievable, relevant and timely (S.M.A.R.T) objectives for my major tasks. Second, I created detailed analytic grading rubrics (and made them accessible online through Blackboard). The rubrics were specific and highlighted important aspects of the task and the levels of achievement (points awarded) that corresponded with meeting specific criteria of the assignment. The

rubrics also made expectations clear and, in the case of the teaching demonstration rubric, provided examples of specific knowledge desired at four different point levels. Finally, I drew from principles of backward design to identify the expectations for outcomes I could expect and my students could expect from the course.

High Stakes Assignments. Drawing from CTE’s position that students should engage in “situated or authentic or professionalization assignments” (*Teaching Matters* Fall 2015), I redesigned my Spring 2015 High Stake Assignments (HSAs) so that Spring 2016 HSAs incorporated writing tasks students could encounter as professional classroom teachers, such as:

1. Writing a formal document to diagnosis and advocate for a plan of remediation for an English Language Learner (HSA 1),
2. Writing a letter to the school’s principal to suggest a curricular change (HSA 2), and
3. Writing lesson plan instructions and rationale for the lesson plan to a substitute teacher (HSA 3).

These tasks required students to demonstrate content knowledge and pedagogical content knowledge through the recommendations, and lesson planning strategies they would present in response to the challenge presented in the assignment. Through these scenarios, preservice teachers were introduced to the genre of professional teaching writing. The tasks were closely aligned with the type of pedagogical knowledge in-service (practicing) teachers would need in the field. To identify the content and pedagogical content knowledge needed for each assignment, I drew upon the principles of backward design to identify what knowledge each activity supported and encouraged, and thus what skills could be identified and highlighted in the grading rubric.

Mini-Teaching Demonstrations. To contribute to the development of students’ pedagogical content knowledge in the actual practice of delivering an instructional lecture, students were given the opportunity to construct and deliver a five- to seven-minute micro- or mini-teaching demonstration (Allen and Eve, 1968). Students were required to select a topic related to their content area, that used a particular area of interest for them in teaching the lesson, and that took into account a particular English Language Learner whose bio had been previously presented in class. As a pedagogical activity, microteachings provide students an excellent opportunity to practice and implement their lesson delivery skills. In particular, planning for mini-teaches helps students recognize the challenges of lesson planning—explaining content, building interest, addressing questions—all within a fixed time period. Preparing for this simple lesson is deceptively complex and multi-leveled as a task, yet it mirrors the complexity of planning curriculum and instruction in a safe classroom space surrounded by peers. Though I have found this assignment to be beneficial to preservice teachers (and welcomed by students), in Spring 2016, I decided to add a reflective element to this task by requiring that students submit a Mini-Teach Reflection paper following their presentation. The objective of the reflection paper is reflected in the following two points featured in the assignment’s rubric: 1. does the student’s reflection draw upon theoretical or pedagogical concepts discussed in class, and 2. does the student’s reflection address the five to six key reflective questions posed in the assignment’s instructions. The first question was designed to see if students could talk about theory and practice in a meaningful way, while the second question was designed to challenge preservice teachers to be reflective about the rigors of planning a lesson.

Student work

According to Greenhoot (2016), “[t]ests, papers, and projects can all be mined to reveal [areas] where students are struggling, providing the opportunity to target those areas in the next unit or in course refinements in subsequent semesters” (CTE View, *Teaching Matters*, Spring 2016: 3). Drawing from Greenhoot, I decided to “mine” the two assessments that were redesigned for implementation in C&T 331’s Spring 2016 semester—the High Stakes Assignments and the Mini-Teaching Demonstration—and assess them for evidence of student learning.

In assessing student learning, I focus not on grades associated with a task, but on a textual analysis of students' responses to the learning tasks reflected on these assignments. There are two reasons for not basing my assessment of student learning on grades. First, as a discourse analyst, I privilege the written word and draw upon student responses to reflect insight into learning. Though my preference for discourse techniques is disciplinary driven, it is also reflective of a respect for Shulman's (2000) notion of "illusory understanding"—that is, the idea that students appear to understand a topic, though a review of their responses suggest they have not understood deeply or completely. The flip side of illusory understanding is that it can illuminate what I will call "illusory teaching." By this term, I extend Shulman's use of "illusory" to reflect weaknesses in teacher performance, whereby teachers imagine they have taught something clearly or specifically but student responses suggest this is perhaps not the case. Therefore, during the first few years of grading in a new course, I am fairly generous in my grading. Rather, the focus for me is to figure out where points of illusory understanding and points of illusory teaching exist (as reflected in the responses students provide on their assignments), identify those points, and then circle back around and reteach areas where instruction has made less of an impact with students.

The flowing section provides textual evidence from two assignments my students submitted during Spring 2016:



“Diagnosis and Remediation of an ELL” (High Stakes Assignment #1). I had mixed feelings about the responses provided by students on this assignment. The student responses clearly addressed the various components of the task, and it was clear that students attended to the requirements of the rubric provided. Yet, many of the students' responses were problematic on an ideological level; students were not very careful in providing factual or evidence-based support on the

context of learning around which they based their observations and proposed interventions.

For example, the assignment required students to view *“Immersion”* (2009). This 12-minute video features a Spanish-speaking upper elementary age boy who is having a difficult time transitioning to an English-language instructional setting. The film shares scenes from the home and school environment of the student, Moises, and his attempts to navigate his English-only school environment in the face of an upcoming standardized test. Though the film does not directly state it, many of my students make the assumption that the family **ONLY** speaks Spanish. Dozens of Indigenous languages are spoken in Mexico, and thus it is possible the family also speaks one of these. Moreover, the audience does not see the family use language outside the context of the family environment, and thus, it cannot be assumed they do not speak other languages (including English) in other language context settings. A truly evidenced-based paper would not make such assumptions (excerpts 1 and 2); such a paper would only report evidence of what has been seen and observed, as shown below in excerpt 3 and especially, excerpt 4. The italicized text is based on faulty inferences and assumptions.

Excerpt 1

“Moises’s comes [sic] from a fluent Spanish speaking family that does not speak English at all. Moises is the only family member who can barely speak English.”

Excerpt 2

“Moises’ first language is Spanish and he is fluent in that. At home, his parents speak Spanish as well. He lives with several family members and they all want him to succeed. His family

supports Moises and his dedication to receive an education, but cannot provide any additional help *since they do not speak English either.*”

Excerpt 3

“Moises is a very promising student and from my observation of him and his work in class, has the appropriate amount of content (math) knowledge to perform very high on the test. This [sic] issue however is Moises is very limited in his English Language Proficiency....Moises comes from a Spanish-speaking country and his time spent in the classroom has been *the first time for him being immersed in the English language.*”

Excerpt 4

“When it comes to Spanish, Moises speaks it with excellence. He effectively communicates with his Spanish-speaking peers and often uses them as resources. He also uses a Spanish-English dictionary as a resource. His ability to quickly find words and translate them is another indicator of his Spanish literacy. Research shows that the more literate someone is in their first language, the easier it is for them to acquire a second language, meaning Moises has a high potential to quickly acquire English (Dias-[Rico], 2012)”.

Despite the assumptions and in spite of the fact that the rubric expressly mentioned that responses should be based on specific information provided by the film, each of these papers received passing grades. That is because I realized there was illusory understanding by students. The preservice teachers needed explicit instruction in the art of providing comments and reflections on student progress, behavior and needs that are evidence-based. This involves taking those specific research methodological skills of evidence-based practice and extending them across multiple aspects of student-engaged tasks (Scheeler et al., 2009). Statements must be supported by concrete evidence. The realization that I needed to be explicit in teaching students about evidence versus inference is incredibly important to informing the background knowledge support I provide my students.

Micro Teaching Reflection Paper. Though the actual quality of the teaching demonstration and lesson plans varied, I scored all positive attempts to meet the assignment requirements with an “A.” I was looking to see how / if students applied or reflected on theory or pedagogy in their paper and if they reflected on what they learned, what they had known beforehand, or what they did beforehand that was helpful in preparing their teaching demonstration. In assigning this reflection paper, I wanted students to think about the complexity of having to

1. teach—engage, inform, and assess,
2. teach their content, and
3. adapt the teaching of the content to the unknown knowledge base of their classmates and an imaginary ELL.

I hoped to see the kinds of questions my students used in in planning their teaching, what they did not think about in relation to these topics in advance, and where there were challenges in relation to adapting content or their teaching. Some students did this, and did it fairly well.

Excerpt 1:

“Preparing for the Mini Teaching Demonstration was the most stressful part of the assignment for me. I struggled to come up with a topic that would fulfill all of the requirements while remaining interesting and engaging for my peers. Constructing specific content and language objectives and figuring out how to accommodate for the English language learners present were the biggest challenges I faced in preparing for my lesson. I relied on the theories and pedagogical strategies we discussed in class to meet these challenges. The “Content and Language Objectives” lecture from March 9th was a huge help in constructing my lesson. The slides stressed the importance of communicating objectives to students orally and visually, so I incorporated this into my teaching by voicing the objectives

and also posting them on the board. Bloom's taxonomy and calling students to a higher level of thinking was also stressed in this lecture. With "create" being the verb at the peak of the pyramid, I required students to create their own example of a hypothesis in my lesson. When it came to accommodating for the English language learners present, I relied on a variety of resources ranging from stories told in class, to personal surveys of English language learners, to other academic resources I found online. My appreciation for teachers greatly grew when I realized this lesson had relatively minimal requirements. For example, we were only required to teach for ten minutes and consider one ELL in our teaching, whereas teachers have to teach for hours and consider every single learner in their classroom."

Yet, in the course of reading the reflection papers these preservice teachers wrote, I came to realize that the rubric failed to accurately capture aspects of the task my students felt were the significant "teachable moments" of this task.

Excerpt 1:

"Just from watching other mini-teaches, I found that the ones that had us moving around and doing something were a lot more engaging."

Excerpt 2:

"The most important thing that I learned from my mini-teach is to get to know your students....Since I did not know all of their backgrounds with mathematics I did not know how advanced they would be...I would suggest to just quickly ask the students at the beginning of the lesson how much of the information they already know."

Excerpt 3:

"The mini-teaching demonstration taught me that time is important when planning to achieve an objective. In the past, I have written multiple lesson plans and had to guess the time frame that it would take to complete the lesson. I have never been tested on putting the lesson into action and being timed. It provided a new rush, because I knew there was so much that I wanted to talk about, but I only had ten minutes. I am glad that I practiced multiple times...."

Excerpt 4:

"While I am not sure that the Mini Teach changed my view on teaching as a whole, it did give me some insight into how planning and implementing a lesson can be a process of sorts. I have lesson planned before and done presentations, but planning and then teaching a lesson is a different experience. I really enjoyed it overall, so that makes me think I have chosen the right field. I think the Mini Teach helped me realize how important it is to do more than just lecture and instead involve the students, with activities, pair-and-share (having the students sign their name to their partners), and other ways to keep them focused."

Adopting a discourse analytical approach to assessing students provided incredible insight into student learning and teaching practice.

Reflections

In the end, documenting the redesign of C&T 331 helped me better understand the nature of my students' learning and the kind of learning I want to foster in this classroom. Specifically, the textual evidence provided by my students' on their homework assignments provided me with a wealth of insight into the kinds of discourses and ideologies students can hold on to that are not necessarily in line with the explicit / implicit instructional objectives. This information provided me with insight into student learning/thinking that I could more directly address through instruction and classroom activities.

Documenting teaching and learning as a result of the redesign also provides me with the pragmatic (Shulman, 2000) support to argue for my systematic and focused attention to addressing student concerns regarding my teaching evaluations in this class. My evaluations in all areas of my teaching (primarily in the interpersonal relationships) were high; however, they were lowest in the following areas. Between Spring 2015 (base year) and Spring 2016 (implementation of the redesign), the mean evaluation scores in the following areas improved:

	Spr 2015 (mean)	Spr. 2016 (mean)
1. Teaching is clear / engaging	2.8/4	3.45/4
2. Clarity of course goals and objectives	3.25/4	3.55/4
3. Acquired knowledge and skills the class promoted	2.7/4	3.45/4

Based on my assessment of student learning given the redesign of the major course assessments, moving forward I will make changes to course instruction in the following areas:

1. Continue to fine-tune assignment objectives and associated rubrics so that they are specific and measurable. In this way, I can more readily disambiguate where students are having difficulties in grasping or communicating content knowledge or applying or executing pedagogical content knowledge.
2. Investigate ways to develop and participate in engaged and engaging learning practices. Now that I know what needs to be taught (especially in terms of helping students to provide evidence-based knowledge and support for pedagogical decisions), I need to create in-class or flipped classroom types of activities that allow students to engage more deeply with knowledge amongst their peers and on their own.
3. Explore the possibility of further studying this course as part of scholarship on teaching and learning. In the course of creating this portfolio, I stumbled across the wealth of research in the area of SoTL and the numerous conferences held across the country and around the globe dedicated to scholarship in this area.

Category: Developing expertise & professional competencies

Discipline: Professional schools

Keywords: Curriculum & Teaching, Designing Assignments, Designing Rubrics