

Building a framework for determining the authenticity of instructional tasks within teacher education programs

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Received 20 April 2007; received in revised form 31 August 2007; accepted 5 September 2007

Abstract

We propose a framework for evaluating the degree of authenticity of instructional tasks used within a teacher education program. First, we provide a defense for authenticity as an exemplary aspect of education. Second, we synthesize the theoretical literature on authenticity into conceptual codes. Using these codes, we build our authenticity framework around five criteria: the instructional task (1) is routinely performed by teachers, (2) involves students in a classroom, (3) promotes knowledge of practice, (4) involves self-reflection, and (5) serves formative purposes. We then discuss potential applications of our framework for the individual teacher educator and for program evaluation.

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Keywords: Authenticity; Teacher education; Assessment; Teacher candidates

1. Introduction

The teacher candidates with whom we have had the experience of working tend to follow the metaphor of the sponge, soaking up everything we can possibly give them in preparation for becoming practicing teachers to the point of saturation. We continue to fill teacher candidate's coffers with (what we hope is) useful information to fulfill the goal of effectively preparing them for the profession. Of course, the goal to *effectively* prepare is the most arduous task. Teacher education programs have approached this task of effectively preparing teacher candidates through various means—multiple classroom observations, guest teaching assignments, creation of viable lesson plans and curricular

units, courses in learning and motivation theory, and, of course, student teaching assignments. In our experience in teacher education, however, students continually report that they learn more in one semester of student teaching than in all their other teacher education experiences combined (cf. Goodfellow & Sumsion, 2000). The reason behind this phenomenon is simple—the student teaching semester requires the students to immerse themselves into the world of teaching, and that process forces the students to not only apply everything they have learnt but also adjust dispositions to particular contexts. Truly, the student teaching experience is an authentic teaching experience. Yet, it does not have to be the only authentic experience the teacher candidate has in the teacher education program, nor should it be.

We see the process of becoming a teacher as involving initiation into the community, learning

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the methods, theory and practices of that community, working under the guidance of a mentor, and eventually becoming a full participant in that community (e.g. Lave & Wenger, 1991). Further, the “activities of a [community] are framed by its culture” and should “cohere in a way that is...accessible to members who move within the social framework. These coherent, meaningful, and purposeful activities are *authentic*” (Brown, Collins, & Duguid, 1989, p. 34, emphasis in original). This type of authenticity, especially in regard to assessment, has found accumulated support in the last 10–15 years. In drawing connections between authentic assessment and “educative experiences” (e.g. Dewey, 1938/1997), Tellez (1996) states that an epistemological basis for authentic assessment may be conceptualized by the “metaphor of ‘growth as education and education as growth’” (p. 708). The work of Wiggins (1989, 1993, 1999), Newmann, Secada, and Wehlage (1995), Darling-Hammond, Aneess, Falk, and Columbia University Teachers College National Center for Restructuring Education Schools and Teaching (1995) and others, as will be discussed in greater detail below, has been instrumental in building the use of authentic assessments and authentic activities in K-12 classrooms. There has been additional work in authenticity in association with teacher education programs (e.g. Darling-Hammond & Snyder, 2000; Standerford, 1996; Tellez, 1996), and its use as a tool to support teacher learning through a more challenging content of diverse practices and for diverse learners. We agree that increased authenticity of activities, tasks and assessments will improve teacher education programs and, consequently, teacher candidates’ learning experiences. Yet, a framework for evaluating the authenticity of learner tasks within teacher education programs has yet to be developed. Before increasing the number of authentic experiences of teacher candidates, as they progress in this community, we have to determine exactly the characteristics of an authentic task. Further, we should order these tasks by increasing the degree of authenticity to slowly involve the teacher candidate into the entire teaching experience. This project hopes to begin to address both concerns to further inform teacher educators and teacher education researchers interested in improving teacher education programs. Our framework explicitly details what it means for a task to be authentic, characterizes these tasks, provides direction for teacher education programs to increase the

authenticity of tasks, and will assist teacher education programs to reach a higher level of authenticity. We also hope it contributes as the type of quality research Borko, Liston, and Whitcomb (2007) call for in-building our knowledge of the characteristics of effective teacher education programs.

Authenticity is the central node of the framework we propose. Although we believe authenticity is a necessary condition for a quality teacher education program, it alone is not sufficient. Many aspects play into this notion of quality; however, we place authenticity at the center to our contribution to teacher education research for four reasons. One, authenticity requires activity faithful to actual professional activity. Providing context alongside theory and practice increases student knowledge about what it means to apply theory to real-world contexts. Practicing teachers understand the need for this contextual knowledge:

The wisdom of these field-based teacher educators was informed by their in-depth personal-professional, practical and theoretical knowledge of the children, their families and the community in which they worked and from which the families were drawn. In addition, they had contextual knowledge of the organisational, social and political contexts in which their teaching occurred. They considered that this holistic and contextualised knowledge enabled them to make professionally sound and morally-ethically responsible judgements as they responded to the continually unfolding events, circumstances and challenges that characterised their day-to-day work. Their holistic and contextualised knowledge also meant that they were able to share insights with student teachers about the fieldwork setting that helped student teachers to move beyond superficial and fragmented understandings, and to *see the whole picture* of what teaching is about and *how theory and practice come together on a day-to-day basis*. (Goodfellow & Sumsion, 2000, p. 248, emphasis in original)

Increasing opportunities for teacher candidates to work with practicing teachers in authentic contexts will only increase their preparedness for entering the field, but, in the absence of field-based opportunities, engaging in numerous, highly authentic tasks faithful to professional practice can also increase candidates’ preparedness.

Two, authenticity assists with the candidates' ability to transfer and apply theory to practice. As the teachers in [Goodfellow and Sumsion \(2000\)](#) above report, when presented with authentic situations, teacher candidates are asked to successfully connect theory with practice. The challenges practicing teachers face vary as often as the day. Increased authenticity of instructional tasks can better prepare candidates for these increasingly varied challenges ([Darling-Hammond & Snyder, 2000](#)). Although working towards ensuring that teacher candidates are well-versed in educational and psychological theory is an invaluable aspect of quality teacher education programs, without occasions to fully understand how such theories can be implemented in the field, even the most knowledgeable candidate might struggle upon entering the profession. Therefore, fairness ([Halliday, 1998](#)) to the teacher candidate in her adequate preparation involves inclusion of authenticity in the teacher education program.

Three, many of the various challenges teachers face concern issues of diversity. Although the concept of diversity can be interpreted in many ways, we are considering it here to include school context variation as well as the variation that can exist among individual learners. [Barab, Squire, and Dueber \(2000\)](#) consider the lack of use of emerging technologies by new teachers in diverse settings as indicative of the inauthentic settings in which teacher candidates learn about these technologies. They cite [Nicaise and Barnes \(1996\)](#) and their suggestion that due to the typically monocultural environment of university classrooms we should not be surprised that new teachers quickly set aside theory and technique learned during their teacher education programs. Elementary and secondary classrooms are becoming more culturally and linguistically diverse, so prospective teachers will need requisite knowledge and skill to be successful with these diverse student populations (cf. [Garmon, 2005](#); [Zeichner, 2003](#)). Authenticity provides a possible route to provide such knowledge and skill by allowing teacher candidates opportunities to complete tasks in diverse contexts with diverse learners.

Four, we consider authenticity tied to constructivism. Since “[p]ersons interact with objects and events through their senses, which are inextricably associated with extant knowledge” ([Tobin, Tippins, & Gallard, 1994, p. 47](#)), it can be argued that learning mostly occurs through this interaction.

Further, the inherent sharing of knowledge with other participants (in our case, fellow teacher candidates, teacher educators and teacher practitioners) leads to the ability to more accurately judge and perfect personal performance ([Pellegriano, Chudowsky, Glaser, & National Research Council Division of Behavioral and Social Sciences and Education Committee on the Foundations of Assessment, 2001](#)). Simply, learning takes place somewhere within an activity, and the more authentic the situation, the greater the learning experience. The dependence of constructivism on the engagement in activities matches the link between increased authenticity and increased learning in all situations, including teacher education. Based on these four reasons, authenticity is the central aspect of our framework for evaluating instructional tasks in teacher education courses.

It is important to note that we understand that authenticity may be incorporated into various components of teacher education. Although much of the literature on authenticity focuses on assessment, we will not limit our evaluation of authenticity to only this aspect of teaching and learning. We perceive that teacher educators use students' performance on instructional tasks to gauge their current level of understanding. In other words, the instructional tasks teacher educators employ in their teacher education courses are assessments. These instructional tasks are not necessarily summative, but can be formative as well. Therefore, when referring to instructional tasks in the following discussion of our framework, we are simultaneously referring to any activities or assessments that are implemented within a teacher education course and/or program.

2. Synthesis of relevant literature

The body of research on authentic assessment is immense, and, although we draw upon this literature in our work, we have focused our conceptual framework on research in which the concept of authenticity, as it pertains to learning tasks and assessments, is developed and defined. In defining authentic assessment, these authors have developed their own unique set of criteria and standards, but there are several strands of commonality between them. We have identified five strands of commonality, or conceptual codes, within these sets of standards, and it is these commonalities that have directly informed the development of our

framework. These commonalities are (1) that the task is representative of tasks which are routinely performed by professionals in the field; (2) that there is some product or performance that is given in an authentic environment; (3) that the task is “high quality” such that the learner may benefit intellectually from the task; (4) that it involves self-reflection on the part of the learner; (5) that the task is employed as an effective assessment (for a summary of how these standards were coded, see Table 1). We will briefly review this literature as we define and explicate the similarities present between them.

2.1. Task is authentic to professional activity

One common theme among these authors’ standards for authenticity is the focus on tasks that are performed by professionals in the field. Wiggins (1999) advocates the use of tasks that are similar to those facing people in the real world as the most important aspect of authenticity because a student who might understand the theoretical knowledge of a discipline is not guaranteed to perform well in the field. Wiggins uses doctors and pilots as examples of the need for authentic practice prior to licensure. For Wiggins, we should test not only students’ knowledge, but also “the student’s ability to prepare for and master the various ‘roles’ and situations that competent professionals encounter in their work” (p. 208).

Similarly, Newmann et al. (1995) state that authentic tasks include the use of “ideas, theories, or perspectives,” as well as the use of “methods of inquiry, research, or communication” that are “characteristic of an academic or professional discipline” (pp. 19–20). In addition, they state that authentic tasks should ask students “to address a concept, problem, or issue that is similar to one that they have encountered or are likely to encounter in life beyond the classroom” (Newmann et al., 1995, p. 24). This criterion is further expressed by Darling-Hammond et al. (1995), where they state that authentic tasks should be designed to be “truly representative of performance in the field” (p. 11) where students actually *do* and practice the things that professionals do.

This emphasis on real-world tasks is also expressed in the literature on authentic assessment in teacher education programs. Tellez (1996) states in his second criterion that authentic assessment should be “embedded in the specific contexts of

teachers’ work, including their perceptions of roles, experiences, and practices” (p. 707). Similarly, Darling-Hammond and Snyder (2000) state in their first criterion that authentic assessments of teacher candidates should “sample the actual knowledge, skills, and dispositions desired of teachers as they are used in teaching and learning contexts, rather than relying on remote proxies” (p. 527).

Reference to “context” was commonly used in the development of this criterion by many of the aforementioned authors, as was the case with the immediate two examples, and the authors’ use of this work was difficult to extract at first. For example, Wiggins (1999) states that authentic tasks should be “faithful representations of contexts facing workers in the field” (p. 229). The use of “context” here could be read either as “activity” or “environment.” By “activity” we refer to the actions that workers perform in the field, and by “environment” we refer to the location, or real-world audience, in which workers interact. Although this distinction may seem tedious, we find that it is central to understanding the difference between two of our conceptual codes. We find that the use of “context” as interpreted as “activity” refers to the types of criteria discussed in this section, namely that authentic tasks should involve “activities” that are replicas of professional practice. Yet, we also find that “context” as interpreted as “environment” is just as present in the literature. Therefore, our second conceptual code is that an authentic task should involve performing, or producing a product, for a real-world “environment” or audience. This code is described more fully below.

2.2. Task requires performance or product in an authentic environment

As stated above, many authors have expressed that a truly authentic task is one in which real-world activities are occurring in real-world situations (Darling-Hammond et al., 1995; Newmann et al., 1995; Wiggins, 1999). This conceptual code focuses on criteria that reference the audience for whom the product or performance is presented. These authors believe that for a task to be authentic it has to involve engaging with an authentic audience or environment.

In assessing the authenticity of tasks performed by K-12 students, Darling-Hammond et al. (1995) state that for a task to be authentic it has to involve an oral public presentation which “insures that [the

Table 1
Conceptual codes from literature

| Conceptual codes | Author | Criterion number | Criterion |
|------------------------------------|-----------------------------------|------------------|---|
| Authentic to professional activity | Darling-Hammond et al. (1995) | 1 | "[Tasks] are designed to be truly representative of performance in the field." (p. 11) |
| | Darling-Hammond and Snyder (2000) | 1 | "Assessments sample the actual knowledge, skills, and dispositions desired of teachers as there are used in teaching and learning contexts, rather than relying on remote proxies." (p. 527) |
| | Newmann et al. (1995) | 3 | "The task asks students to show understanding and/or use of ideas, theories, or perspectives considered central to an academic or professional discipline." (p. 19) |
| | Newmann et al. (1995) | 4 | "The task asks students to use methods of inquiry, research, or communication characteristic of an academic or professional discipline." (p. 20) |
| | Newmann et al. (1995) | 6 | "The task asks students to address a concept, problem, or issue that is similar to one that they have encountered or are likely to encounter in life beyond the classroom." (p. 24) |
| | Tellez (1996) | 1 | "...the assessment is embedded in the specific contexts of teachers' work, including their perceptions of roles, experiences, and practices." (p. 707) |
| | Wiggins (1999) | 1 | "Engaging problems that are replicas of or analogous to problems faced by professionals in the field." (p. 208) |
| Authentic environment | Wiggins (1999) | 2 | "Faithful representations of contexts facing worker in the field." (p. 208) |
| | Darling-Hammond et al. (1995) | 4 | "...students are often expected to present their work publicly and orally." (p. 12) |
| "High-quality" task | Newmann et al. (1995) | 7 | "The task asks students to communicate their knowledge, present a product or performance, or take some action for an audience beyond the teacher, classroom, and school building." (p. 25) |
| | Darling-Hammond et al. (1995) | 1 | "The tasks are contextualized, complex intellectual challenges involving the students; own research or use of knowledge in 'ill-structured' tasks..." (p. 12) |
| | Darling-Hammond and Snyder (2000) | 2 | "Assessments require the integration of multiple kinds of knowledge and skill as they are used in practice." (p. 527) |
| | Newmann et al. (1995) | 1 | "The task asks students to organize, synthesize, interpret, explain, or evaluate complex information in addressing a concept, problem, or issue." (p. 15) |
| | Newmann et al. (1995) | 2 | "The task asks students to consider alternative solutions, strategies, perspectives, or points of view in addressing a concept, problem, or issue." (p. 17) |
| | Newmann et al. (1995) | 5 | "The task asks students to elaborate on their understanding, explanations, or conclusions through extended writing." (p. 23) |
| | Standerford (1996) | 4 | "Assessment should develop teachers' ability to use good judgment in teaching practice." (p. 163) |
| | Wiggins (1999) | 3 | "Problems require a repertoire of knowledge, good judgment in applying that knowledge, and organizing skills in finding solutions." (p. 229) |
| | Wiggins (1999) | 4 | "Tasks that require students to produce a quality product/performance." (p. 229) |
| | Wiggins (1999) | 7 | "Involve response-contingent challenges in which the students may adjust answers due to specific audience and/or context." (p. 229) |
| Self-reflection | Zessoules and Gardner (1991) | 1 | "Nurtures complex understandings." (p. 51) |
| | Darling-Hammond et al. (1995) | 3 | "A major goal of authentic assessment is to help students develop the capacity to evaluate their own words against public standards, to revise, modify, and redirect their energies, taking initiative to assess their own progress." (p. 12) |

Table 1 (continued)

| Conceptual codes | Author | Criterion number | Criterion |
|---------------------------|-----------------------------------|------------------|---|
| | Standerford (1996) | 5 | “Assessment should ultimately teach students to take responsibility for assessing their own learning and learning needs through reflection about their work.” (p.163) |
| | Wiggins (1999) | 5 | “Transparent criteria that allow for student self-assessment.” (p. 229) |
| | Wiggins (1999) | 9 | “Assessment of habits of mind in student performance.” (p. 230) |
| | Zessoules and Gardner (1991) | 2 | “Develops reflection as a habit of the mind.” (p. 54) |
| Assessment implementation | Darling-Hammond et al. (1995) | 2 | “...evaluate “essentials” of performance against well-articulated performance standards.” (p. 12) |
| | Darling-Hammond and Snyder (2000) | 3 | “Multiple sources of evidence are collected over time and in diverse contexts.” (p. 527) |
| | Darling-Hammond and Snyder (2000) | 4 | “Assessment evidence is evaluated by individuals with relevant expertise against criteria that matter for performance in the field.” (p. 528) |
| | Standerford (1996) | 1 | “Assessment should be formative both contributing to and guiding learning and teaching.” (p. 163) |
| | Standerford (1996) | 2 | “Assessment should identify students’ strengths and areas for improvement in authentic situations.” (p. 163) |
| | Standerford (1996) | 3 | “Assessment should aid the teacher in refining and improving instructional practice.” (p. 163) |
| | Tellez (1996) | 2 | “...teachers have a voice in how they are assessed and in creating the climate that is conducive to assessment.” (p. 707) |
| | Wiggins (1999) | 6 | “Interactions between assessor and assessee.” (p. 230) |
| | Wiggins (1999) | 8 | “Trained assessor judgment.” (p. 230) |
| | Zessoules and Gardner (1991) | 3 | “Documents learners’ (teachers’) evolving understandings.” (p. 58) |
| | Zessoules and Gardner (1991) | 4 | “Uses assessment opportunities as a moment of learning.” (p. 60) |

students,] mastery of an idea, concept, or topic is genuine” (p. 12). In addition, they state that performance for an outside audience has other benefits for the student, such as improvements in self-efficacy and a chance to engage with the larger community. Similarly, Newmann et al. (1995) identified authentic tasks as those which ask students “to communicate their knowledge, present a product or performance, or take some action for an audience beyond the teacher, classroom, and school building” (p. 25).

2.3. “High-quality” task

There was universal agreement among these authors that an authentic task should not only be representative of professional practice, but also one that requires a degree of thought and attention that can push students to higher levels of understanding. For example, many routinely performed tasks are often mundane and require little thought or consideration. (All teachers take attendance, but it

hardly requires great pedagogical skill or knowledge.) Therefore, these authors present their criteria for what a “high-quality” task entails. We have put “high-quality” in quotation marks because it is not the language that these authors use but it represents a synthesis of how these authors have defined worthy tasks.

One common criterion for a “high-quality” task is that it requires the “integration of multiple kinds of knowledge and skills” (Darling-Hammond & Snyder, 2000, p. 527). The use of an array of knowledge, and the know-how of when to use and apply that knowledge when considering a problem or issue, was present in several authors’ criteria (Darling-Hammond & Snyder, 2000; Darling-Hammond et al., 1995; Newmann et al., 1995; Wiggins, 1999). A similar criterion is that tasks should help students “nurture complex understandings” (Zessoules & Gardner, 1991, p. 51). This also involves tasks which help students meet “complex intellectual challenges” (Darling-Hammond et al., 1995, p. 12) and “evaluate complex information” (Newmann

et al., 1995, p. 15). Other criteria involve nurturing organizational (Newmann et al., 1995; Wiggins, 1999), problem-solving (Newmann et al., 1995; Wiggins, 1999), and judgment skills (Newmann et al., 1995; Standerford, 1996; Wiggins, 1999). In addition, several authors reported some very specific criteria for a “high-quality” task, such as one that requires students to “elaborate on their understanding, explanation, or conclusions through extended writing” (Newmann et al., 1995, p. 23) and another that requires tasks to “involve response-contingent challenges in which the students may adjust answers due to specific audience and/or context” (Wiggins, 1999, p. 229).

Although there is some agreement between authors as to what makes a “high-quality” task, there is reason to believe that it is the discipline on which the task is being modeled after that will determine what qualifies as a “high-quality” task. Unfortunately, the teacher education literature is lacking in terms of this definition. The only teacher-education-specific criterion coded in this category was that “assessments should develop teachers’ ability to use good judgment in teaching practice” (Standerford, 1996, p. 163). The use of good judgment was cited by several other authors, who were not concerned with teacher education, indicating that this criterion is hardly specific to teacher education. We find that the definition of a “high-quality” task with respect to teacher education can take on many different meanings. For example, an evaluation of the quality of a task will differ depending on whether you compare the activities with state teaching standards, program standards, or course standards.

2.4. *Task involves self-reflection*

Several authors refer to self-reflection as a criterion for an authentic task (Darling-Hammond & Snyder, 2000; Darling-Hammond et al., 1995; Standerford, 1996; Wiggins, 1999; Zessoules & Gardner, 1991). Wiggins (1999) and Zessoules and Gardner (1991) both express the need for self-reflection in authentic tasks for all students. However, the role of self-reflection is particularly important in the education of future teachers because it plays a large role in the lives of practicing teachers (Athanases, 1994; Bowman, 1989; Darling-Hammond & Snyder, 2000; Shepard, 2005; Wagner, Brock, & Agnew, 1994). Because of this, authentic tasks must contain an element of self-reflection, for

instance asking students to be reflective, in order to be authentic to the practice of teaching (Darling-Hammond & Snyder, 2000; Standerford, 1996; Wiggins, 1989). Darling-Hammond and Snyder (2000) state that that self-reflection plays an important role for teachers because they are constantly examining student learning in relationship to their teaching, which “ultimately enriches their ability to understand the effects of their actions” (p. 524). Indeed, self-reflection happens continuously for practicing teachers, both consciously and subconsciously.

Standerford (1996), along with Darling-Hammond and Snyder (2000), believes that self-reflection is just as important for teachers as it is for students and therefore it is an essential piece of authenticity for teacher candidates. Standerford states in “Principle 5” of her five criteria for authentic assessment that: “Assessment should ultimately teach students to take responsibility for assessing their own learning and learning needs through reflection about their work” (from Johnston, 1992, p. 163). Standerford also states that “learners [should] become partners in assessment by practicing [self-reflection]” (p. 161).

2.5. *Assessment implementation*

Another commonality in the criteria for authentic tasks presented in the literature pertains to the implementation of these tasks as assessment tools. Many authors included guidelines as to how the assessment should be done and who should be the assessor. These authors stated that well-articulated evaluation standards that were co-created with both the teacher and the student are critical (Darling-Hammond et al., 1995; Tellez, 1996). In addition, they made specific references to who should be doing the assessing. Darling-Hammond and Snyder (2000) state that tasks should be evaluated by “individuals with relevant expertise” (p. 528). Wiggins (1999) also finds that fair authentic assessments require “trained assessor judgment” (p. 230). In addition, these authors find that there should be a high degree of “interaction between the assessor and assessee” (Wiggins, 1999, p. 230) and that these interactions should be focused on using the assessment “as a moment of learning” (Zessoules & Gardner, 1991, p. 60). Other authors agree that the assessment should be used to guide learning and teaching by “identify[ing] students’ strengths and areas for improvement” and helping

the teacher in “refining and improving instructional practice” (Standerford, 1996, p. 163). Zessoules and Gardner (1991) argue that authentic assessment should be used to document “learners’ evolving understandings” (p. 58) and Darling-Hammond and Snyder (2000) add that this documentation should include evidence which is “collected over time and in diverse contexts” (p. 528).

These five conceptual codes were instructive in designing our teacher education authenticity framework, which is explicated below. Now, we will discuss potential applications, possible limitations or obstacles, and our own future research directions.

3. The framework

Our framework for evaluating the degree of authenticity of instructional tasks used in teacher education consists of five criteria. We do not assume

independence among these criteria—in fact, we expect them to be correlated to each other and we hope to further describe this relationship after our analyses of the scoring data. While our criteria are based on the conceptual codes that emerged from the literature, the specifics of our criteria are different, in part due to the context being studied. As well, our fifth criterion (The Instructional Task Serves Formative Purposes) is unique in that it draws from the literature on formative assessment as well as on that from authentic and performance-based assessment (see Table 2 for the complete framework and scoring guide). Below we present and discuss each of the criteria and evaluation guidelines for applying the framework to possible instructional tasks from teacher education courses. We discuss how our criteria are both similar to and different from the conceptual codes we discussed earlier and describe examples where they are needed.

Table 2
Authentic instructional task-rating guide

| | 1 | 2 | 3 |
|---|---|--|--|
| Criterion 1: Routinely performed by professional teachers | The instructional task is atypical to the practice of teaching and is hardly ever performed by a teacher except in special circumstances. | The instructional task is performed infrequently in the practice of teaching, or is performed only by certain teachers (department leaders, special situations, etc.). | The instructional task is common to the practice of teaching. Expert teachers are proficient at the task and perform it regularly. |
| Criterion 2: Involves students in a classroom | The instructional task has the candidate develop an artifact that is not intended for outside audience. | The instructional task has the candidate develop an artifact that is intended for outside audience but not delivered. | The instructional task has the candidate develop an artifact that is actually delivered to an audience outside the teacher education classroom which is appropriate to the task. |
| Criterion 3: Promotes knowledge of the practice of teaching | The instructional task does not advance the knowledge of teaching through explication of organized concepts and theories. | The instructional task asks the candidate to organize and explicate educational concepts and/or theories but does not ask for application of understanding. | The instructional task asks the candidate to organize teaching concepts and theory, explicate this understanding, and then apply this understanding. |
| Criterion 4: Prompts for self-reflection | The instructional task does not solicit self-assessment or reflection. | The instructional task solicits students to self-assess or reflect, but they are not prompted to consider those reflections when re-shaping their practice. | The instructional task solicits self-assessment or reflection. In addition, the self-assessments are used iteratively to inform practice. |
| Criterion 5: Serves formative purposes | The instructional task provides no structure for formative feedback and no further action is encouraged or required. | The instructional task may provide formative feedback linked to the appropriate standards, but there is no opportunity or requirement for further action on the part of the teacher candidate. | The instructional task is structured such that formative feedbacks are linked or compared to the appropriate teaching standards, and opportunity for further action is required or encouraged. |

3.1. Criterion 1: the instructional task is routinely performed by professional teachers

This criterion is based on the first of the conceptual codes we synthesized from the literature, Task is Authentic to Professional Activity. Here we are focused on the profession of teaching and therefore we have customized the concepts in the literature to fit in with our particular context. We have kept the broader concept of real-world activity, which is described as an activity that “competent professionals encounter in their work” (Wiggins, 1999, p. 208), or a task which is “truly representative of performance in the field” (Darling-Hammond et al., 1995, p. 11). However, we have decided to extricate the concept of including tasks which are of a particular type. To illustrate this better, we will give an example of this extrication from a quote from Newmann et al. (1995). Newmann states that a task should “address a concept, problem, or issue that is similar to one that they have encountered or are likely to encounter in life beyond the classroom” (p. 24). This quote states that tasks should not only replicate a real-world activity but that they should be of a specific type, i.e. “address a concept, problem, or issue”. (For our purposes, we have chosen to include the concept of activity type in our third criterion, The Instructional Task Promotes Knowledge of the Practice of Teaching.) In this first criterion we have chosen to focus only on the concept of whether a task is routinely performed by professionals. We have operationalized this concept in terms of the *frequency* with which a task is performed by professionals. On our three-point rating scale, tasks that are similar to tasks teachers routinely perform will rate highly. Tasks that are irregularly performed or performed only on special occasions or perhaps by teachers in special circumstances (i.e. special education teachers) will rate lower than tasks that are performed by expert teachers regularly. We hope to further explicate the meaning of “expert” teachers from the literature in our future work with this project.

3.2. Criterion 2: the instructional task involves working with students in a classroom environment

The second of our conceptual codes described above, Task Requires Performance or Product in an Authentic Environment, frames our second criterion. Again, we have drawn from our particular

context of teacher education in defining the meaning of this criterion. This criterion is really getting at what is meant by real-world context in terms of “environment.” Here we are focused on how the task replicates the real-world professional environment. Newmann et al. (1995) state that a task that replicates an authentic environment is one in which students “communicate their knowledge, present a product or performance, or take some action for an audience beyond the teacher, classroom, and school building” (p. 25). However, Newmann et al. were not discussing authenticity for teacher education programs where authenticity is defined precisely by what goes on in classrooms. For teacher education, the most fitting and appropriate outside audience would be an actual K-12 classroom. This is precisely how we have conceived this criterion. The most authentic task is one in which a teacher candidate is asked to develop an artifact that is actually delivered to an audience outside the teacher education classroom. By artifact we mean developing curriculum, assessments, lessons, and teaching. Tasks that ask students to develop an artifact for an outside audience but that are not actually delivered (for example, a task in which teacher candidates develop a lesson plan for a fourth-grade classroom but are not asked to teach that lesson plan to the students) will rate in the middle on our scale. Tasks in which there is no intent or delivery to an actual group of K-12 students will rate lowest.

3.3. Criterion 3: the instructional task promotes knowledge of the practice of teaching

This criterion is based on the third of our conceptual codes, “High-Quality” Task. The main concept of this code is that an authentic task should not only be representative of professional practice, but also one that requires a degree of thought and attention that can push students to higher levels or understanding. The two articles we cited in our literature review that addressed authenticity in teacher education programs report that a task should involve the “integration of multiple kinds of knowledge and skills” (Darling-Hammond and Snyder, 2000, p. 527), and should help teachers’ develop their “ability to use good judgment in [their] teaching practice” (Standerford, 1996, p. 163). We have chosen to conceive of this concept in a slightly broader manner. Instead, we will simply consider the degree to which a task promotes the

teacher candidates' knowledge of the practice of teaching.

The knowledge of practice can refer to many aspects of teaching, from classroom management to pedagogical content knowledge to professionalism. Standerford (1996) states that for the task to be educative it should be authentic to improving the candidate's instructional practice; we agree. In applying our framework, however, a task can rate high in this criterion if it advances the candidate's knowledge of any aspect of teaching practice. In other words, we do not want to limit our analysis to only the instructional aspect of teaching. The worry is that applying this aspect of the framework so broadly will inflate scores, as it could be argued that every task in a methods course will address some concrete aspect of teaching. However, we have detailed descriptors within this criterion that will differentiate between levels of the authenticity of the task relative to knowledge of practice. An assessment task can partially meet the standards proposed for this category, but may not come to a full description of what should be considered to more effectively advance a candidate's knowledge of any aspect of teaching.

So, what exactly does it mean to advance knowledge of practice? And, how can we evaluate this aspect? Relevance of the task begins to answer these questions. This is a cornerstone of authenticity (Darling-Hammond et al., 1995; Wiggins, 1989) because for any task to have authenticity it must be relevant to the content at hand. In this case, for a task in a methods course to be authentic it would have to establish or reinforce the truisms of actual teaching practice. In other words, the knowledge learned through completion of the assessment task would have to replicate the knowledge the candidate might gain through extended presence in the classroom. Newmann et al. (1995) provide some descriptors of authentic classroom assessment that can be applied here, specifically their first five standards—Organization of Information, Consideration of Alternatives, Disciplinary Content, Disciplinary Process, and Elaborated Written Communication. We have incorporated a few of their descriptors into this criterion due to our unique context of teacher education programs. First, the task should ask the candidate to organize information about teaching concepts and educational theory. Second, the candidate should be required to explicate his/her understanding through written or oral communication. Finally, the candi-

date should apply this understanding to a new teaching situation. We consider these categories to increase in importance because, first, they increase in cognitive difficulty (e.g. Bloom, 1956) and, second, they increase in authenticity to the teacher working in the field with such problems when designing his or her own classroom and curriculum.

Evaluating this task will need to first look at the relevance of the task to knowledge of practice. Then, the task will be evaluated to see if it fulfills all three descriptors. For example, in a Language Arts writing methods course, an authentic task that advances the candidate's knowledge of practice could be the creation of a grammar lesson. A possible sequence: The candidate would have to choose a common grammar issue and choose from possible teaching constructs the best instructional method, fulfilling the first descriptor listed above. Then, the candidate would have to explicate the issue and teaching construct in a written lesson plan, fulfilling descriptor two. For the final descriptor, the candidate would have to teach and defend his/her lesson. If this is something the candidate will experience once entering the field, then it would score high in this category.

3.4. Criterion 4: the instructional task prompts for self-reflection

For the purposes of our framework, we consider self-assessment to be a reflective process, as do Zessoules and Gardner (1991), and therefore use the terms "self-assessment" and "reflection" synonymously. Our self-assessment criterion is similar to our fourth conceptual code, which is based largely on the work of Darling-Hammond and Snyder (2000), Sadler (1989), Standerford (1996), and Wiggins (1989); however, our criterion is specific to our framework design and context. Because self-assessment is intrapersonal, it can be difficult to observe the degree to which it has occurred or been effective. With this research, we can only determine the degree to which self-assessment is encouraged or required based on what we can infer from class syllabi and supporting documents. We recognize these limitations. Our rating guide reflects what we believe we can infer from our future data. An example of an instructional task that typifies this criterion could come from a methods course where teacher candidates are asked to use their experiences over the course of the semester to inform their vision of their future classroom.

However, this example only *includes* self-reflection in the course but does not take it to the highest level in terms of authenticity. Better tasks directly solicit the teacher candidates to reflect *and* to consider their reflections in iteratively changing their practices. Tasks that solicit teacher candidates to reflect but that do not appear to use these reflections to inform further practice will rate lower. Likewise, tasks in which there is no solicitation for self-assessment or reflection rate the lowest.

3.5. Criterion 5: the instructional task serves formative purposes

This criterion is somewhat based on the fifth conceptual code, Assessment Implementation. This code focuses on the specifics of how an authentic task should be used by assessors. Particularly, and more important for our framework, it involves perceptions of how the students' performances should be evaluated, as well as perceptions of how the student can benefit the most from performing the task. We are more concerned with this aspect because we are considering all instructional tasks within teacher education programs rather than just summative assessments. We have pulled largely from the work of Zessoules and Gardner (1991), Standerford (1996), and Darling-Hammond and Snyder (2000). These authors stress the need for "identify[ing] students' strengths and areas for improvement" and helping the teacher in "refining and improving instructional practice" (Standerford, 1996, p. 163), as well as helping to document "learners' evolving understandings" (Zessoules and Gardner, 1991, p. 58). We see these descriptions as getting at the formative aspects of an instructional task. In defining formative, we consider Sadler's three required conditions: the learner must (1) "possess a concept of the standard being aimed for"; (2) "compare the actual level of performance with the standard"; and (3) "engage in appropriate action which leads to some closure of the gap [between the two]" (Sadler, 1989, p. 121). The instructional task must provide the opportunity for the teacher candidates to gain formative feedback from their instructor. This feedback needs to be formative in relation to the practice and knowledge of teaching.

For example, an instructional task that might be authentic to both the practice and knowledge of teaching can be more or less authentic overall depending on the degree to which it provides the

candidate with formative feedback. Further, the degree of authenticity also depends on what opportunities the candidate has to use feedback for additional practice. Take a situation in which a teacher candidate is asked to design and teach a lesson to a group of third graders. This task can vary in its overall authenticity based on *when* formative feedback is provided to the teacher candidate, for example does it happen between writing the lesson and teaching the lesson or does it only happen after the lesson has been taught. However, even this scenario is not as authentic as it would be if it were a part of an iterative process in which the teacher candidate received feedback and could incorporate that feedback into further practice.

Although this criterion may be difficult to rate without intense study of each instructional task in practice (through observation), it is central to our framework and important to isolate so that it does not confound the other criteria—such as those that involve an outside audience (and potential feedback from them) or feedback received through self-assessment and reflection. In our future implementation of this framework, we do expect to see evidence of this criterion in course documents. When applied to courses from a teacher education program, we would regard a task as formative for the teacher candidate if it provides opportunity for feedback and if it provides an opportunity for the teacher candidate to take some action to "close the gap" between their own performance and that which is the most desirable.

4. Discussion

4.1. Potential applications

The framework we have developed for evaluating the authenticity of instructional tasks in teacher education can be used both to characterize and to improve upon current practices. This can be accomplished on two levels—at the instructor level and at the program level. Teacher educators can use our framework to evaluate the authenticity of instructional tasks in their courses. In addition, our framework can be used as a basis on which to build improved assignments. Further, the teacher educator can build the course so that the instructional tasks progress in their level of authenticity. For example, the instructor may have received feedback that her course is not applicable to

becoming a teacher because the focus is on the theory rather than on the practice of teaching. She may feel overwhelmed with understanding how to make her instructional tasks more practical and authentic without a solid approach to the issue. Our framework may provide a starting point for her to reflect on her instructional tasks and course sequence.

Building upon its use at the course level, our framework can be used to characterize and improve the authenticity of instructional tasks at the program level. For instance, it can first provide a snapshot of current practices. Second, it may be used as a basis on which to improve the use of authentic instructional tasks. Subsequently after implementation of some reform effort, it may be used to measure program growth. The framework can then continually inform practice in additional years.

4.2. Potential obstacles

In addition to the potential applications of our framework, there are also potential obstacles to its implementation. When applying the framework to an evaluation of task authenticity (either at the course level or at the program level), the relative importance of the task to be rated should be taken into account. Not all tasks within a course or a program deserve the same weighting when an overall course or program rating is desired. Decisions about weighting tasks differentially must be decided based on the context of the task within the course or program, and on the overall goal of the framework application. These decisions may occur at the task level, the course level, or both. For example, depending on the purpose of the research, certain courses may not be as important as others in determining the overall program characterization for task authenticity. As well, one must be wary of evaluating less authentic mini-tasks that exist within the context of a larger, more authentic instructional task. Additionally, caution must be exercised when attempting to generalize the results of the application of our framework to a larger context. Different programs have different goals, serve different populations, and have very different structures. Generalization across these distinct contexts is not recommended.

4.3. Future research directions

Our first application will be at the program level to evaluate the course tasks within a state uni-

versity's teacher education program. All possible courses that are offered—within the four major disciplines of science, mathematics, language arts, and social studies for secondary education—by the program in one academic calendar year will be included in the study. From those courses, we will collect the syllabi to generate a list of instructional tasks, collect supporting documents given to candidates about those tasks, and interview teacher educators about those tasks. Based on that data, we will use the framework to evaluate each task for the degree of authenticity on all five criteria. Through this process we hope to discover which courses have tasks with the highest degree of authenticity.

Characterization of authenticity of these instructional tasks within this program is only one aspect of our future research ideas. A second aspect is an examination of the progression of task authenticity experienced by teacher candidates as they move through the program. Based on the typical order of courses within a teacher candidate's individual program, we hope to uncover a pattern of when candidates are asked to perform more authentic instructional tasks. We would expect, consistent with research findings on exemplary teacher education programs (Levine, 2006), the degree of authenticity to increase as teacher candidates progress towards their student teaching experience, and, subsequently, their teaching life.

Acknowledgements

We would like to thank Lorrie Shepard and David Webb for their support of our work.

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