This paper describes how university coursework for a graduate level teaching internship in Childhood Education (preK-4) at the University of Arkansas incorporates standards of the National Board for Professional Teaching Standards (NBPTS) and encompasses performance-based assessment as utilized in Praxis III to develop instructional units. The paper provides a constructivist approach to the development of knowledge and understanding of curriculum concepts and their application to instruction. Through readings, discussions, and interactions between mentors, interns, and instructors, a knowledge base for curriculum is created. Utilizing that knowledge base, interns begin the performance-based process that culminates in teaching an instructional unit that is integrated and aligned within an existing curriculum and that is designed for a specific class with specific needs. Completion of forms and documents required for inclusion in the instructional unit package provide performance-based evidence of concept understanding and evaluation. The evaluation process conforms to NBPTS standards and the Pathwise Classroom Observation System criteria. Forms, completed examples, and instructional units developed by interns using this procedure are attached. (SM)
Developing and Teaching Instructional Units That Are NBPTS/Performance Based

Emilie P. Sullivan

2002
Introduction

In 1987 the National Board for Professional Teaching Standards (NBPTS) was created. At the same time, the University of Arkansas was also intent on strengthening the professionalization of teaching and was in the process of developing five year certification programs in childhood education and special education, and a fifth year program in secondary. Middle level education was later added as a five-year program. These programs impacted educational reforms in the state. In January of 2002, new certification rules went into effect in Arkansas. Elementary grade 1-6 certification with the possibility of additional certification in kindergarten became early childhood prek-4. Middle level changed from requiring an endorsement on an elementary or secondary certification to a separate licensure area. There were also changes in special education requirements. These licensure changes brought the state of Arkansas requirements more in line with the NBPTS domains of teaching.

Childhood Education is a prek-4 early childhood education initial certification program at the University of Arkansas; it culminates in a Master of Arts in Teaching Degree (M.A.T.). During the four undergraduate years, early childhood majors spend increasingly more time with field-based classes as they progress in the their studies. After receiving their bachelor degrees and admission to the M. A. T. degree program, the graduate students become interns in the public school. During this fifth year of the internship or preservice teaching, interns work fulltime under the mentorship of individually assigned master teachers. Four days a week from the beginning of the teaching contract school year until graduation in May, interns follow the schedule of the regular contract day. On one day of the week, interns are absent from their assigned classrooms as they attend their university cohort classes which are held in one of the cohort schools. This presentation describes how the university coursework for the teaching internship in Childhood Education incorporates the National Board for Professional Teaching Standards and encompasses performance-based assessment as utilized in PRAXIS III in the development of instructional units. Forms and completed examples are included. Instructional units developed by interns using this procedure are displayed.
Context

Curriculum Design Concepts for Teachers is a course that is taught in the last semester of the internship year. At that point the Childhood Education interns have completed two different 9-week grade level placements and are beginning a third. Their fourth placement is a return to work with the classes and mentors that were their first placements. This allows interns to see the beginning of the year and how children have progressed over the 5-month interval. The instructional units that they design are implemented with those children and the mentors with whom they have had teaching experience.

On January 1, 2002, the requirements for obtaining a standard teaching license in Arkansas changed. Under the new rules, an initial teaching license is issued and can be used for up to three years, followed by examination for a standard license that is renewable every five years. To receive the standard license, an applicant must pass the PRAXIS III performance-based assessment. Hence, university classes focus heavily on performance-based assessment during the M.A.T. year while graduate students (interns) are in the field.

Curriculum Design Concepts for Teachers is a performance-based course. The course extends the study, application, and dialogue about curriculum design that was begun in an undergraduate integrated content course and introduces the concept of differentiating instruction to meet the needs of all learners. The major undertaking in this class is to develop, implement, and evaluate an instructional unit that is developmentally appropriate, meets needs of an identified group of learners, and fits within the existing curricula of a public school setting. This entails knowledge of state and district curriculum standards, curriculum integration, resources available, grade level expectations, and learners educational experiences and needs. Content of the Curriculum Design Concepts for Teachers course draws from the works of several curriculum authorities. Special attention is given to the contributions of Heidi Hayes Jacobs, Grant Wiggins and Jay McTighe, Judy Carr and Douglas Harris, James A Beane, the writings of George J. Posner and Alan N. Rudnitsky, and Educational Testing Service’s Pathwise Classroom Observation System.

Initially, at the start of the second semester, the course content focuses on the nature of curriculum, degree of coherence and integration, the politics of curriculum, and the relationship of assessment. Interns discuss with their mentor teachers, other interns, and the instructor, possible focuses for the instructional units they will create. The units must be able to be integrated with the existing required curriculum of the schools and be appropriate for the students based on their prior learnings. Having had experience earlier in the year of working with the mentor and class for whom they are designing the unit, is a distinct advantage.

NBPTS Standards and Pathwise Criteria of Elements

Course assignments are designed to guide interns through the entire unit development, implementation, and evaluation process, and to address the NBPTS standards and Pathwise assessment elements. The NBPTS’ publication Early Childhood/Generalist Standards (1998) lists eight standards:

- Standard I, Understanding Young Children;
- Standard II, Promoting Child Development and Learning;
- Standard III, Knowledge of Integrated Curriculum;
- Standard IV, Multiple Teaching Strategies for Meaningful Learning;
- Standard V, Assessment;
Standard VI, Reflective Practice;  
Standard VII, Family Partnerships; and  
Standard VIII, Professional Partnerships.

The *Pathwise Classroom Observation System: Orientation Guide* (1995) published by Educational Testing Service organizes teaching into four domains with 19 elements or criteria subsumed under the domains. The Pathwise domains and elements are as follows:

**Domain A, Organizing Content Knowledge for Student Learning**
- A1, Becoming familiar with relevant aspects of students' background knowledge and experiences;
- A2, Articulating clear learning goals for the lesson that are appropriate to the students;
- A3, Demonstrating an understanding of the connections between the content that was learned previously, the current content, and the content that remains to be learned in the future;
- A4, Creating or selecting teaching methods, learning activities, and instructional materials or other resources that are appropriate to the students and that are aligned with the goals of the lesson;
- A5, Creating or selecting evaluation strategies that are appropriate for the students and that are aligned with the goals of the lesson.

**Domain B, Creating an Environment for Student Learning**
- B1, Creating a climate that promotes fairness;
- B2, Establishing and maintaining rapport with students;
- B3, Communicating challenging learning expectations to each student;
- B4, Establishing and maintaining consistent standards of classroom behavior;
- B5, Making the physical environment as safe and conducive to learning as possible.

**Domain C, Teaching for Student Learning**
- C1, Making learning goals and instructional procedures clear to students;
- C2, Making content comprehensible to students;
- C3, Encouraging students to extend their thinking;
- C4, Monitoring students' understanding of content through a variety of means, providing feedback to students to assist learning, and adjusting learning activities as the situation demands;
- C5, Using instructional time effectively.

**Domain D, Teacher Professionalism**
- D1, Reflecting on the extent to which the learning goals were met;
- D2, Demonstrating a sense of efficacy;
- D3, Building professional relationships with colleagues to share teaching insights and to coordinate learning activities for students;
- D4, Communicating with parents or guardians about student learning.

**Procedure**
Within the internship curriculum class, formative evaluation is modeled as interns plan and construct their units. There is an expectation that revisions and redrafting will be needed and
that weekly instructor feedback will provide guidance. Flexible check points for completion of
the parts of the unit are designated in the course calendar. Drafts of parts of the unit are
discussed in whole class, small group, and on an individual basis. The unit is gradually
assembled and ready for presentation during the last three weeks of the semester. The dates for
implementation are arranged with the mentors to avoid district testing requirements and other
complications.

After reviewing state grade level standards and discussions with mentor teachers and classmates,
interns complete Unit Topic Form I which states the topic and list possible sub-topics related to
the main focus. [See attachment #1.] After analyzing this content and viewing how it fits into the
discipline, the intern revises and writes the topic and sub-topics in the form of overarching
essential question(s) and essential or topical questions. The overarching essential question(s)
places the unit content in the context of the discipline. Having the content focus stated in
question format aligns the instructional objectives with the assessment of outcomes which
addresses the NBPTS Standard V, Assessment, and the Pathwise criteria A3, Demonstrating an
understanding of the connections between the content that was learned previously, the current
content, and the content that remains to be learned in the future, and A5 Creating or selecting
evaluation strategies that are appropriate for the student and that are aligned with the goals of the
lesson. The revision of the first form is called Unit Topic Form II and includes the essential
questions, the topical questions, and lists the state standards addressed by the unit. [See
attachment #2.] This is a working document that is discussed and revised with guidance from
the instructor and the mentor teacher as the unit development continues. The continuing
interaction and cooperation between the mentors, instructor, and interns is evidence of reflective
practice: NBPTS Standard VI, Reflective Practice, and Pathwise element D3, Building
Professional Relationships and Sharing Insights.

The second document that the interns complete for the instructional unit is the Class Profile.
[See attachment #3.] This form asks for information about the number of students, gender,
special needs, ethnicity, and how accommodations are made for identified special needs students.
Interns are encouraged to use multiple sources for data. Compiling this information supports
NBPTS Standard I, Understanding Young Children, and Standard IV, Multiple Teaching
Strategies for Meaningful Learning. This also relates to Pathwise criterion A1 Becoming
familiar with relevant aspects of students’ background knowledge and experiences.

A third required document is the classroom diagram. The classroom diagram is drawn to show
the location of centers, physical features, and furniture in the learning environment. [See
attachment #4 for an example.] Within the NBPTS Standard IV description it states, “They use
a variety of grouping arrangements including learning centers...” (p. 38). Pathwise criterion
B5, Making the physical environment as safe and conducive to learning as possible, addresses
the importance of making the environment as safe and conducive to learning as possible. The
classroom diagram provides a basis for consideration of those concerns.

The content/assessment diagram, that is an individually designed document, shows the
relationship of essential and topical questions to forms of assessment. [See attachment #5 for an
example.] This is a working document that is designed for use as the unit is being planned, prior
to, but in conjunction with the development of the lesson plans. The Plant Unit flow chart is an
example of that document. The NBPTS Standard III, Knowledge of Integrated Curriculum, and Standard V, Assessment, along with Pathwise criterion A 5, creating or selecting evaluation strategies that are appropriate for the students and that area aligned with the goals of the lesson, are illustrated in the content/assessment diagram.

With the fifth document which is the first draft of the Context of Instruction Form, the interns place the content to be taught into the context of student learning and the context of curriculum development. [ See attachment #6 and an example #7. ] This document helps to insure that the content has a knowledge base from earlier experiences and that it will be extended by future instruction. It also places the content in the larger context of the discipline under which it is subsumed. Thus, this document links the unit content to past and future learning and to its place in the curriculum. NBPTS Standard II, Promoting Child Development and Learning, and Standard III, Knowledge of Integrated Curriculum, plus Pathwise criterion A3, Demonstrating an understanding of the connections between the content that was learned previously, the current content, and the content that remains to be learned in the future, are all relevant to the Context of Instruction Form which is used to evaluate these criteria.

A list of sources consulted is another document in which lists persons, print and non print media, and any other sources of information used in developing the unit. Standard III, Knowledge of the Integrated Curriculum, and Standard VIII, Professional Partnerships, are applicable to this requirement as is Pathwise A4, Creating or selecting teaching methods, learning activities, and instructional materials or other resources that are appropriate to the students and that are aligned with the goals of the lesson.

Other required written sections of the instructional unit are more individualized based on the class, content, mentor, and intern. A standard format is used for the daily lesson plan. [See attachment # 8. ] Aspects of the plan address Standards III, IV, V, and VI, as well as Pathwise criteria A2, A4, A5, and D1. The reflection criterion is completed after the lesson has been taught, but is part of the lesson plan format. If assessment instruments are printed items, they are attached to the relevant lesson plans. If the assessment covers several lessons or the unit, it is placed in a unit assessment section of the instructional unit package.

After teaching of the entire unit, interns are asked to provide written reflections of the entire instructional process. They reflect on weaknesses and strengths and needs for revision. This information is shared and discussed with the instructor and the mentors. Standards VI, Reflective Practice, and VIII, Professional Partnerships, apply to this activity as well as Pathwise elements D1, Reflecting on the extent to which the learning goals were met, D2, Demonstrating a sense of efficacy, and D3, Building professional relationships with colleagues to share teaching insights and to coordinate learning activities for students.

To provide evidence of learning outcomes, the interns include in their unit packages, student work samples and other products. NBPTS Standards I, II, III, IV, and V, are all relevant to the learning outcomes evidence; Pathwise Domains A, Organizing Content Knowledge for Student learning, and C, Teaching for Student learning, are particularly relevant as well. [See attachment #9 for a list of the unit contents.]
Summary
Enhancing the professionalization of teaching requires that colleges of education adhere to research based best practices. The NBPTS standards and the elements of the Pathwise Observation System provide research based guidelines and criteria for evaluating instructional performance. This paper provides a constructivist approach to development of knowledge and understanding of curriculum concepts and their application to instruction. Through readings, discussions, and interactions with mentors, interns and instructor, a knowledge base for curriculum is created. Utilizing that knowledge base, interns begin the performance-based process that culminates in teaching an instructional unit that is integrated and aligned within an existing curriculum, and that is designed for a specific class with specific needs. Completion of forms and documents required for inclusion in the instructional unit package provide performance-based evidence of concept understanding and application. The evaluation process conforms to NBPTS standards and the Pathwise Classroom Observation System criteria.

References
ATTACHMENT # 1

Unit Topic Form I

Grade Level____ Teacher ___________ School____________________

Unit Topic ___________________________________________________

Supporting Topics

________________________________________________________________

________________________________________________________________

________________________________________________________________

________________________________________________________________

________________________________________________________________

________________________________________________________________

________________________________________________________________

________________________________________________________________

________________________________________________________________

________________________________________________________________
ATTACHMENT #2

Unit Topic Form II

Grade Level_____ Teacher ___________ School____________________

Essential Question

______________________________________________________________

Unit Questions

______________________________________________________________

______________________________________________________________

______________________________________________________________

______________________________________________________________

______________________________________________________________

List related district/state standards: identify the source and state the standard

______________________________________________________________

______________________________________________________________

______________________________________________________________

______________________________________________________________

______________________________________________________________

______________________________________________________________

______________________________________________________________

______________________________________________________________

______________________________________________________________
ATTACHMENT # 3

Class Profile

1. Grade Level ___ Teacher ___________ School _______________

2. Class Enrollment ___ Girls _____ Boys ____  Age Range ______

3. Children’s Primary Language (give number of students)

   _____ English _____ Spanish _____ other list languages, no. of
   speakers, children’s proficiency

4. Number of Special Needs Children

   _____ physical impairment: type ____________________________

   _____ emotional/behavioral

   _____ learning disabled

   _____ gifted/talented

   _____ other: describe ________________________________

5. Number of children in these groups

   _____ White Non-Hispanic

   _____ African American

   _____ Mexican America/Hispanic

   _____ Middle Eastern

   _____ Asian/Pacific Islanders
6. How many children leave the class for special services? ____
   When? _____________________________________________

7. State what specific accommodations are being made within your
   instruction unit for each of the special needs children cited in
   number 4 above.

*** On a separate piece of paper, draw a neat diagram of your
classroom showing the arrangement of furniture, windows, doors,
instructional areas, etc. Label the items on this diagram.
Unit

Essential Questions
What do plants need for life?

Topical Questions
How much water does a seed need? What makes a plant grow?

Expectations
Observe seeds after given water to determine how much it needs.

Standards
LS 2.3

Assessment
“Sprouting seeds” worksheet, observation questions
Observation of experiment questions
Assessment of experiment list of questions
Complete diagram
Complete diagram questions
“Growing further” response sheet & questions

Plants

What are plants?

How do plants change over time?

Where do seeds come from?

What are the parts of a plant?

What is the life cycle of a plant?

What is germination?

All concepts will be assessed by quizzes and will be included in a final project that each child will complete at the end of the unit.

Source: R. Hubbard (2002)
Context of Instruction

Grade Level __________ Teacher __________________________ School ___________

Unit Topic ______________________ Length in Weeks ______________

1. How is this unit aligned with prior instruction? (What prior knowledge should students possess?)

2. How is this unit aligned with future instruction? (What concepts and skills will follow this unit?)

3. How are instruction and the content of the unit integrated across subject/discipline areas?

4. Design a flow chart or web to illustrate the relationships between past, present and future intended learnings.
1. How is this unit aligned with prior instruction? (What prior knowledge should students possess?)

   Students must know about the type of environment in which they live so comparisons can be made. In addition, students need to know what an ocean is and where they are located.

2. How is this unit aligned with future instruction? (What concepts and skills will follow this unit?)

   Students will learn about why it is important to take care of the ocean habitat. For the survival of the oceans, students need to know how humans and natural forces impact the oceans.

3. How are instruction and the content of the unit integrated across subject/discipline areas?

   The unit content focuses on life sciences but utilizes inquiry, thinking, language and literacy skills.

4. Design a flow chart or web to illustrate the relationships between past, present and future intended learnings.

   **Past:**
   Students' knowledge of their environment, animals, plants, types of pollution and wastes.

   **Present:**
   Students learn about what an ocean is and the ecology of oceans. How does it compare with own environment? How is it the same? How is it different?

   **Future:**
   What impacts the oceans? What can we do to preserve them for the future?
Daily Lesson Plan

Unit Topic

Focus Question(s)

Timeframe: Estimate how long the lesson will take.

Standards: List for this lesson only.

Materials

Procedure
  Introduction: What will you say or do to begin?

  Instructional Activities: What will you do? How are the children involved? Describe the activity.

Accommodations for Students with Special Needs

Assessment: what is the product or performance being evaluated? How do you assess learning? How are special needs accommodated? Include the rubric, check list, or description of evaluation method.

Reflection: Complete after the lesson.
Instructional Unit Sequence

1. Cover
   - Title of Unit
   - Name of School
   - Mentor's Name
   - Grade Level
   - Intern name
   - Date

2. Table of Contents with Page Numbers

3. Timeframe

4. Class Profile

5. Unit Topic Form II

6. Standards

7. Daily Lesson Plans (Separate pages for each)

8. Unit Assessment

9. Sources (Separate by Student and Teacher Resources)

10. Reflections

11. Documentation of Students Learning

NOTE: The final version of the unit should be placed in a binder. Two copies are submitted. One will be returned.
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