



## Appendix B: Methodology

### The study sample

Using course materials such as syllabi, textbooks and student teaching observation/evaluation instruments, this study examines classroom management-related professional coursework in 122 initial certification teacher preparation programs.<sup>1</sup> These programs are housed in 79 institutions of higher education (IHEs) located in 33 states (see Appendix A).

The sample of IHEs included is generally representative of the national population of IHEs offering teacher preparation (see Appendix G). However, the proportion of public IHEs in the study is greater than the national average because public IHEs have been obligated to comply with our requests for data through state sunshine laws.<sup>2</sup>

Teacher preparation programs within IHEs were selected to create a stratified sample with approximately equal numbers of both graduate and undergraduate elementary and secondary programs. In total, we examined 36 undergraduate elementary, 26 graduate elementary, 34 undergraduate secondary and 26 graduate secondary programs.<sup>3</sup>

### Selection of coursework

With both aspects of preparation — instruction and practice — playing a role in classroom management preparation, it is important to distinguish between them and indicate how we examined each in three different analyses.

The **foundational coursework analysis** included professional courses from the 119 programs<sup>4</sup> in the study that provide any kind of instruction on classroom management. This sample included the following courses:

- Every instructional course that mentions classroom management in its title, description or objectives,<sup>5</sup> regardless of whether or not the course is exclusively focused on classroom management.<sup>6</sup>
- Practica that are closely aligned with instructional courses focused on classroom management and are therefore best examined in conjunction with such coursework rather than in conjunction with other clinical coursework in a program. For example, one program offers a course titled “Field Experience for Classroom Management,” which is taken concurrently with an instructional course on classroom management.

The foundational coursework analysis included 213 courses across 119 programs,<sup>7</sup> with the number of courses examined in programs ranging from one to five.

Following are titles of typical courses in the foundational coursework analysis, some citing only classroom management — only 24 percent of programs have a course so titled — and some addressing classroom management and other topics:

<b>Courses addressing primarily classroom management</b>	<b>Courses addressing classroom management and other subjects</b>
Classroom Management	Foundations of Middle Level Education
Classroom Organization and Management	Curriculum and Methods of Teaching in Elementary Education
Creating Learning Communities	Introduction to Exceptional Children
Classroom and Behavior Management: Elementary Focus	Educational Psychology
Theories of Classroom Management	Teaching Techniques in the Secondary School

Unless otherwise noted, all references to “foundational coursework” include instructional coursework as well as practica closely aligned to instructional coursework that were drawn from the program’s clinical coursework.

A second **clinical coursework analysis** included professional coursework from 25 programs (selected from the full study set by a stratified random sample) and was designed to provide a picture of training in classroom management provided by general clinical coursework that places teacher candidates in classrooms to learn the full range of professional skills, classroom management presumably among them. This sample included all generic clinical coursework, all student teaching courses and seminars, and any secondary subject-specific clinical coursework that mentions classroom management in its title, description or objectives.<sup>8</sup>

The clinical coursework analysis included 43 courses across 25 programs.<sup>9</sup> Following are some titles of typical courses in the second analysis:

<b>Generic practica</b>	<b>Student teaching seminars</b>	<b>Subject-specific secondary practica</b>
September Experience in the Schools	Reflections on Professional Practice Seminar	Practicum in Earth Science, Grades 7-9
Practicum/Teaching Techniques	Student Teaching Seminar	Field Experience in Teaching Social Studies
Elementary Methods Practicum III	Elementary Education Capstone Seminar	Practicum in Earth Science, Grades 10-12

A sample for **cross-program analysis** involved nine programs (selected from the full study set in a stratified random sample) and was designed to illustrate the comprehensiveness and coherence of classroom management training across all professional coursework (foundational and general clinical), including the feedback provided in student teaching placements.

For example, if an elementary program offers three instructional courses that touch on classroom management, an elementary education practicum and a student teaching placement, the cross-program analysis would examine the following: classroom management related lectures and assignments for all courses, the treatment of classroom management strategies in all relevant textbooks, and the classroom management sections of observation/evaluation instruments used to provide feedback to teacher candidates when they are in student teaching placements.

See Fig. 1 for an illustration of the three analyses and their relationship to coursework (see p. 9 of full report).



## Analysis of syllabi and student teaching observation/evaluation instruments

Nearly all of the course materials that we obtained for this study were dated between 2009 and 2012. In a few cases, sets of syllabi collected during earlier NCTQ studies were also reviewed, but no syllabus included in the analysis predates 2008.<sup>10</sup>

### The validity of using syllabi

Analyses of syllabi have long been an accepted part of the evaluation of teacher preparation. State agencies, accrediting organizations and multiple research studies use syllabi for the same purpose that these documents are distributed to students: to identify key topics that are covered by a course. NCTQ's methodology follows this approach, treating a syllabus as an outline of the broad topics considered essential. In addition, syllabi provide a host of other data, such as textbooks and other required and recommended reading, descriptions and grade weights of assignments and bibliographies on which coursework is based.<sup>11</sup>

When syllabi are vague or unclear about the lecture topics or assignments, or when textbook chapter headings are unclear, credit was given for the broadest and most generous interpretation of their content.

### Coding

In all three samples, data on classroom management instruction was gathered from course syllabi. The most relevant parts of the syllabi were lecture topics and schedules, assignment descriptions, and assigned textbooks, but other parts of the syllabus (e.g., course objectives) could provide context. Each relevant lecture topic and assignment was analyzed using codes related to specific classroom management approaches and techniques (e.g., rules, routines), models and ways of approaching classroom management (e.g., classroom management theories and research, philosophy of classroom management), and general or unspecified categories (e.g., classroom management — unspecified).

Analysis of programs in the cross-program analysis sample was supplemented with analysis of assigned textbooks that address classroom management in part or whole, as well as the observation/evaluation instruments used in student teaching. All components in the third sample — including textbooks and student teaching instruments — were analyzed using the codes noted for the sample's lectures and assignments.

Codes used in the foundational coursework and general clinical coursework analyses

	<b>Classroom management strategies</b>	<b>Lecture codes</b>	<b>Paper- and pencil-assignment codes</b>	<b>Practice assignment codes</b>
<b>Big Five strategies</b>	Rules	<ul style="list-style-type: none"> <li>Rules</li> <li>Writing CM plan<sup>12</sup></li> </ul>	<ul style="list-style-type: none"> <li>Rules</li> <li>CM plan, general/unspecified<sup>13</sup></li> </ul>	<ul style="list-style-type: none"> <li>Establishing rules and procedures/Prevention strategies</li> <li>Writing CM plan</li> </ul>
	Routines	<ul style="list-style-type: none"> <li>Time and materials management</li> <li>Routines and proactive strategies<sup>14</sup></li> </ul>	<ul style="list-style-type: none"> <li>Time and materials management</li> <li>Routines</li> </ul>	<ul style="list-style-type: none"> <li>Time and materials management</li> </ul>
	Praise	<ul style="list-style-type: none"> <li>Praise and criticism<sup>15</sup></li> <li>Rewards and punishments<sup>16</sup></li> </ul>	<ul style="list-style-type: none"> <li>Praise and criticism<sup>17</sup></li> </ul>	<ul style="list-style-type: none"> <li>Praise and criticism</li> </ul>
	Engagement	<ul style="list-style-type: none"> <li>Engagement</li> </ul>	<ul style="list-style-type: none"> <li>Engagement</li> </ul>	<ul style="list-style-type: none"> <li>Engagement</li> </ul>
	Misbehavior	<ul style="list-style-type: none"> <li>Responding to disruptive behavior</li> </ul>	<ul style="list-style-type: none"> <li>Intervention strategies (misbehavior)</li> </ul>	<ul style="list-style-type: none"> <li>Intervention strategies</li> </ul>
<b>Mixed support</b>	Least obtrusive means	<ul style="list-style-type: none"> <li>Responding to minimally disruptive behavior</li> </ul>	<ul style="list-style-type: none"> <li>Least obtrusive means</li> </ul>	<ul style="list-style-type: none"> <li>Least obtrusive means</li> </ul>
	Physical environment	<ul style="list-style-type: none"> <li>Organization of classroom</li> </ul>	<ul style="list-style-type: none"> <li>Classroom organization</li> </ul>	<ul style="list-style-type: none"> <li>Classroom organization</li> </ul>
	Motivation	<ul style="list-style-type: none"> <li>Motivation</li> </ul>	<ul style="list-style-type: none"> <li>Not coded</li> </ul>	<ul style="list-style-type: none"> <li>Motivation</li> </ul>
	Parent/Community involvement	<ul style="list-style-type: none"> <li>Not coded</li> </ul>	<ul style="list-style-type: none"> <li>Not coded</li> </ul>	<ul style="list-style-type: none"> <li>Not coded</li> </ul>
	Diversity, cultural factors <sup>18</sup>	<ul style="list-style-type: none"> <li>Social, emotional, cultural factors</li> </ul>	<ul style="list-style-type: none"> <li>Not coded</li> </ul>	<ul style="list-style-type: none"> <li>Not coded</li> </ul>
	Social/Emotional factors	<ul style="list-style-type: none"> <li>Social, emotional, cultural factors</li> </ul>	<ul style="list-style-type: none"> <li>Not coded</li> </ul>	<ul style="list-style-type: none"> <li>Not coded</li> </ul>
<b>General classroom management</b>	General	<ul style="list-style-type: none"> <li>CM unspecified</li> <li>Philosophy of CM</li> <li>Theories and Research, General</li> </ul>	<ul style="list-style-type: none"> <li>Unspecified</li> <li>Theories and research</li> <li>Personal philosophy</li> <li>Field experience (response, interview with teacher, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>Feedback on CM Skills – Simulation</li> <li>Feedback on CM Skills – Teaching episode</li> <li>Field experience (response, interview with teacher, etc.)</li> <li>Reflections</li> <li>Personal philosophy</li> </ul>
	Unclear/Could not be determined	<ul style="list-style-type: none"> <li>Unclear lecture titles<sup>19</sup></li> </ul>	<ul style="list-style-type: none"> <li>Unclear assignments</li> <li>CBD</li> </ul>	<ul style="list-style-type: none"> <li>Unclear assignments</li> <li>CBD</li> </ul>
	None	<ul style="list-style-type: none"> <li>Classroom management not mentioned</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>
	Other	<ul style="list-style-type: none"> <li>Other (including reflections)</li> </ul>	<ul style="list-style-type: none"> <li>Other</li> </ul>	<ul style="list-style-type: none"> <li>Other</li> </ul>



Codes used in the cross-program analysis

	<b>Classroom management strategies</b>	<b>Lecture codes</b>	<b>Paper- and pencil-assignment codes</b>	<b>Practice assignment codes</b>
<b>Big Five strategies</b>	Rules	■ Rules/Standards of behavior	■ Rules/Standards of behavior	■ Rules/Standards of behavior
	Routines	■ Routines & procedures	■ Routines & procedures	■ Routines & procedures
	Praise	■ Praise/ Positive reinforcement	■ Praise/ Positive reinforcement	■ Praise/ Positive reinforcement
	Engagement	■ Engagement	■ Engagement	■ Engagement
	Misbehavior	■ Student misbehavior	■ Student misbehavior	■ Student misbehavior
<b>Mixed support</b>	Least intrusive means	■ Least intrusive means/ Proactive strategies	■ Least intrusive means/ Proactive strategies	■ Least intrusive means/ Proactive strategies
	Physical environment	■ Physical environment	■ Physical environment	■ Physical environment
	Motivation	■ Motivation	■ Motivation	■ Motivation
	Parent/Community involvement	■ Parent/Community involvement	■ Parent/Community involvement	■ Parent/Community involvement
	Diversity/Cultural factors <sup>20</sup>	■ Diversity/Cultural factors	■ Diversity/Cultural factors	■ Diversity/Cultural factors
	Social/Emotional factors	■ Social/Emotional factors	■ Social/Emotional factors	■ Social/Emotional factors
<b>General classroom management</b>	General	■ Classroom management – Not specified	■ Classroom management – Not specified	■ Classroom management – Not specified
	Unclear/Could not be determined	■ Unclear lecture titles	■ Unclear assignments	■ Unclear assignments
	None	■ Classroom management not mentioned	■ Classroom management assignments: none	■ Classroom management assignments: none
	Other	■ Other	■ Other	■ Other

## Examples of coding from lecture schedules and assignment descriptions

The following examples come from real syllabi and show how lecture titles and assignment descriptions would be interpreted using our coding scheme.

Lecture schedule from “Child Development and Program Design in Childhood Settings Grades 1-6”

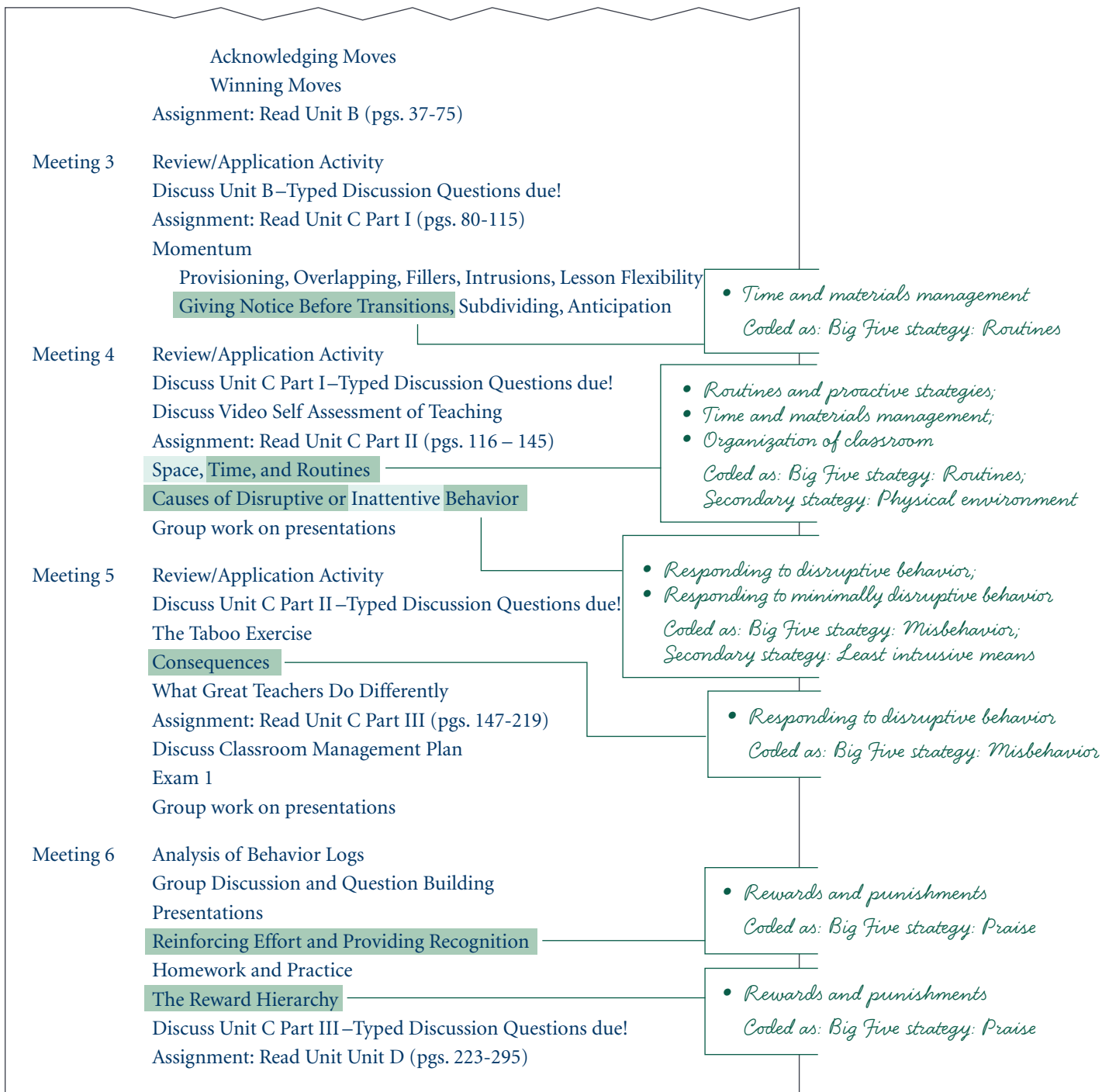
<b>Anticipated Schedule — subject to change</b>	
<b>Date and topic</b>	<b>Readings and Assignments due</b>
Sept. 2 – on campus Introduction Reflective Action in teaching	1 hour online – blog: digital cafe
Sept. 9 – online Classroom management	ONLINE Blog: respond to 4 vignettes
Sept. 16 – on campus The learning environment Meeting students needs in a diverse society	Eby Ch. 1, 2 & 5 Brooks & Brooks all Obs. #1 & 2 due 1 hour online – Blog: view 2 Differentiation videos
Sept. 23 – online Educational Philosophy	ONLINE Assignment section: Philosophy of Education questionnaire and reading
Sept. 30 – on campus Educational philosophy	Eby Ch. 4 & 9 Obs. #3 & 4 due

*Classroom Management – unspecified*

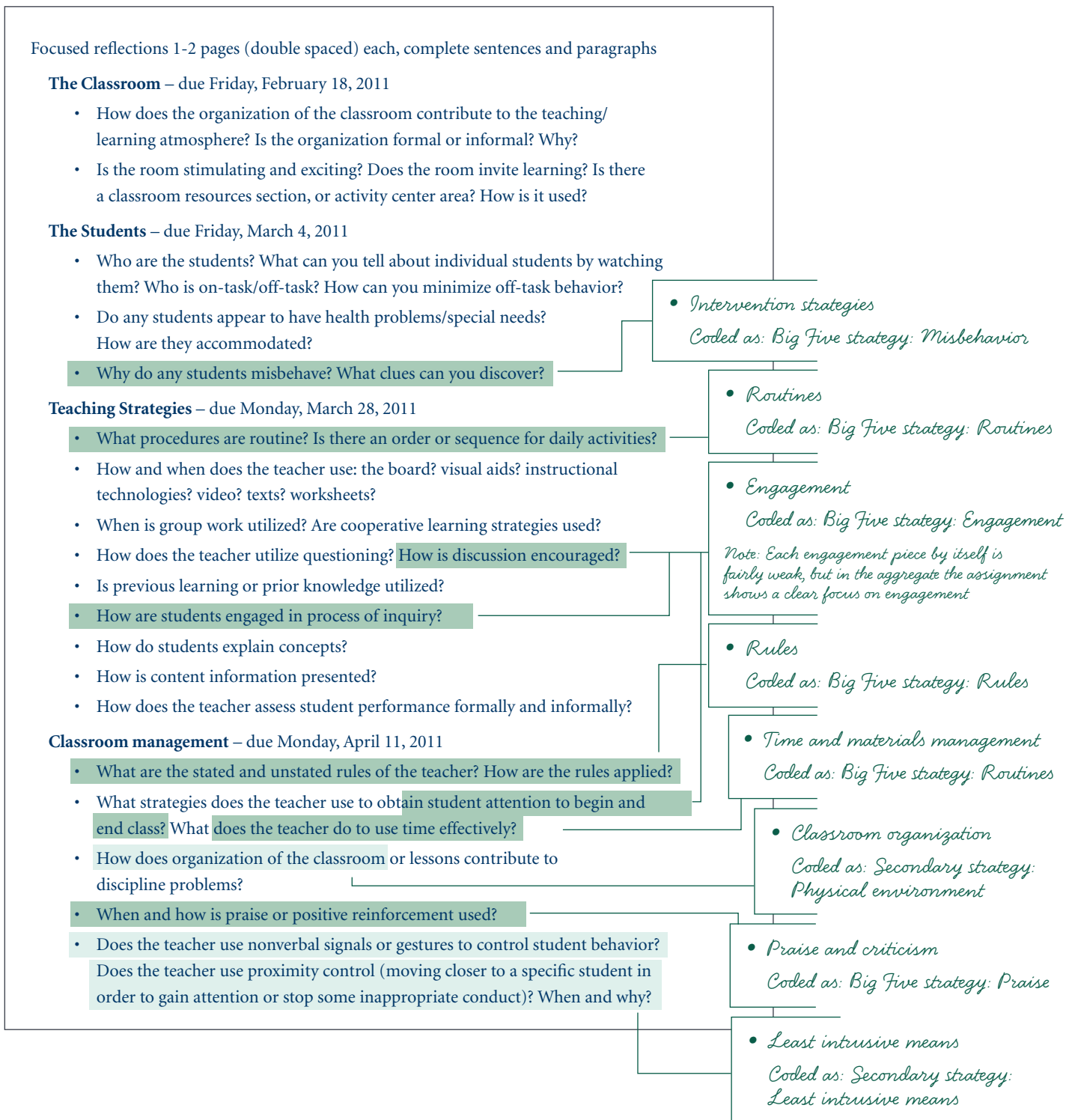
Lecture schedule from “Child Development and Program Design in Childhood Settings Grades 1-6”

<b>II. COURSE OUTLINE AND SCHEDULE. Tentative schedule</b>	
Meeting 1	Introduction to Class, Syllabus What is Classroom Management? Why is Classroom Management Important? Why is Classroom Management so Difficult Today? Characteristics of Effective Teachers and the Connection to Classroom Man. Classroom Management Basics The number one problem in education today... Read and review Unit A (pgs. 3-33)
Meeting 2	Review/Application Activity Discuss Unit A–Typed Discussion Questions due! Introduction to Management A Continuum from Authority to Attraction Desisting Moves Alerting Moves Enlisting Moves

*Classroom Management – unspecified*



Assignment from course “Field Placement – Mathematics”





Assignment from course “Field Placement – Mathematics”

**FINAL 2-3 PAGE (double-spaced) REFLECTION PAPER – due Monday, May 9, 2011**

Your 4884 final paper is an opportunity for you to reflect and comment on your experiences and observations in your field placement, by responding to the following questions:

- How will you teach in your own classroom? Do you envision it to be similar to the one you were in? What types of things would you do the same? Would you do differently?
- How will you manage your classroom?
- How do you know when a lesson is successful? How do you know when it is not?
- What do you see as your strengths and weaknesses as a teacher?
- What experiences provided the most opportunity for your own growth and learning?
- What was your favorite (best) lesson and why? Which was your least favorite (worst) and why? Looking back, how would you make it better?

• *Classroom Management – unspecified*

## Lectures associated with classroom management

Lecture schedules were examined to determine which class meetings address classroom management. To determine the proportion of a total course that addresses classroom management, the aggregate amount of time spent on this topic in a program was calculated by dividing the sum of all class sessions addressing classroom management by the sum of all lectures in these courses.<sup>21</sup> This calculation means that if a program has multiple courses that address classroom management, it is possible for the proportion of a course devoted to classroom management to be greater than 100 percent. If more than one topic was listed for a single course meeting, we gave each topic full credit and credited that entire lecture as addressing classroom management, even if only a portion of it actually did.

Occasionally, topical distinctions were impossible. For example, a reading assignment on “intervention strategies” might refer to techniques for responding to either or both off-task behavior and disruptive misbehavior. In such cases we used context clues from other parts of the syllabus to inform our interpretation of the term. If context clues did not help, we applied the most generous interpretation of the term, generally crediting it toward both strategies.

In some cases, a course syllabus indicates that theories or models of classroom management would be presented, rather than individual classroom management approaches and techniques.<sup>22</sup> While there is no guarantee that an instructor teaching a model will also teach the specific approaches and techniques included in the model, our analysis gave credit for addressing the techniques and approaches associated with the model. (For example, the “Social Discipline Model” (Driekurs) is credited with addressing rules and standards of behavior and misbehavior.) See Appendix D for a full crosswalk of classroom management models and specific approaches and techniques.

## Teacher candidate assignments associated with classroom management

Assignments that pertain to classroom management were also coded. The codes used differed from those for lectures because of the need to code some types of assignments that could only be related to practice (for example, feedback

on a teaching episode), because assignments could sometimes only be coded based on the type of assignment rather than on the content of it, and because assignments tended to use some different terminology than lecture topics.

For courses classified as clinical coursework and therefore placed in the clinical coursework sample, analysis of practice was supplemented by a category of codes not shown in the table above that enabled coding about the type of practice teacher candidates had in PK-12 classrooms: general observation, observation specific to teacher behaviors and observation specific to student behaviors, whole-class teaching episodes, small-group teaching episodes, and so on. Teaching opportunities were also coded for whether or not the course instructor — as opposed to the university supervisor or cooperating teacher — observed the teaching opportunity.

## Texts associated with classroom management

Each required textbook for any course in any sample was analyzed based on the proportion of the textbook that is dedicated to classroom management. The first pass was basic: Using the descriptions of content found in chapter headings, textbooks were divided into one of three categories:

1. **FOCUSED** on classroom management, when 50 percent or more of the content deals with classroom management topics, broadly defined.
2. **INCLUDING** classroom management, when at least one chapter but less than 50 percent of the text deals with classroom management topics, broadly defined.
3. **NOT ADDRESSING** classroom management, when not a single chapter deals with classroom management topics, broadly defined.

A much more thorough analysis of textbooks was completed for any required texts included in the cross-program analyses. Each of those textbooks was reviewed independently by two analysts to provide information beyond its mere quantity of coverage

## Relevance of observation/evaluation instruments to classroom management

In addition to examining courses and clinical work, student teaching observation/evaluation instruments were also analyzed for programs included in the cross-program analyses, ascertaining whether or not they are designed to provide feedback to the student teacher on each specific classroom management strategy addressed in this study.

## The impact of ambiguous materials on the analysis

If a program's courses had syllabi for which descriptions of lectures or assignments are not descriptive enough to categorize, we removed the course or program from that segment of our analysis and our findings indicate as much.

The most significantly affected evaluation involved the calculation of time spent on classroom management lectures, where only 73 programs (61 percent of the sample) had syllabi that consistently included lecture schedules. There is no reason to believe that any of the evaluations based on only part of the sample produce biased results, because there is no plausible connection between a program's foundational coursework preparation in classroom management and its instructors' design of syllabi.