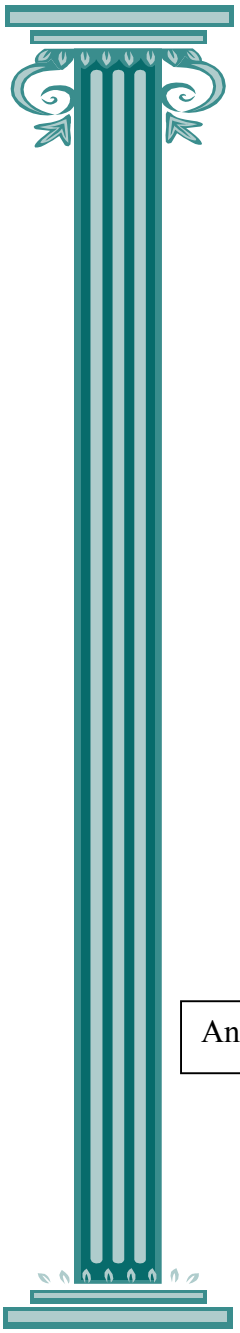

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Creating an Overview Course for Middle Level Teacher

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Nowhere is the urgency of effective teacher preparation greater than in the programs, coursework, and field experiences that prepare candidates to teach in the middle grades. Middle level education is controversial in and of itself. Accusations that middle school philosophy as espoused by the National Middle School Association is too "touchy-feely" with more emphasis on affective concerns than on academic rigor surface periodically, most often coinciding with NAEP and TIMSS reports of 8th graders comparing unfavorably with U.S. elementary and/or high school students or with middle level students in other countries. While developmental appropriateness plays well in early childhood education, this concept is often the object of blame when applied to early adolescence.

While NMSA endorses the basic objective of the NCLB Act of 2002, that every child receives a quality education, the chosen method of assessing this objective is much too narrow. It takes more than a standardized test to gauge the effectiveness of a middle grades program (George, 2002). Be that as it may, the most immediate challenge of NCLB is meeting the requirement for all middle grades teachers to be "highly qualified" as outlined by the act. Experienced teachers have to take content area tests, or have what NCLB considers adequate content coursework in an area, to become "highly qualified." While few would disagree with NCLB's emphasis on content, it is equally important that the teacher preparation curriculum include coursework emphasizing middle level philosophy.

Many middle level teachers, both novice and experienced, know little about the breadth and depth of middle level philosophy, having entered the grades 6-8 classroom with a tongue-in-cheek MSBA- Middle School By Accident- degree. They are unaware of, and short on practice with, the teacher standards of the National Middle School Association. Incorporating balance between

academic rigor and developmental responsiveness, the NMSA Performance-based Standards for Initial Middle Level Teacher Preparation (and similarly the NMSA Master Teacher Standards) provide guidelines for the knowledge, dispositions, and performances of effective middle level teachers- the necessary ingredients for upgrading an MSBA degree to an MSBD- Middle School By Design- degree.

Even though experts in middle level education and teacher preparation have recommended it (McEwin et al., 2000), many states do not require certification in middle level education. Some continue to offer overlapping certification in broad bands such as K-8 and 7-12, a major reason why universities have not developed middle level degree programs. Recent studies indicate that approximately 90% of those middle level teacher preparation programs that do exist are located in states that require middle grades licensure of some form (NMSA, 2004).

Differences in Programs

Middle grades programs vary from fully staffed with instructors well versed in middle level philosophy and experience, offering coursework exclusively for candidates preparing for grades 5-8 classrooms, to programs that, for reasons of low enrollment or by virtue of being newly established or for lack of qualified instructors, offer coursework shared with elementary and/or secondary candidates. In the case of the fully staffed and established programs, tenets of middle level philosophy can be integrated contextually among the various courses and field experiences. In programs with minimal staff expertise and/or too few candidates to justify full sections of courses exclusively targeted for middle level candidates, instructors must differentiate when needed to show the unique dimensions of the various levels represented.

In some schools of education where a middle grades major is not offered, candidates receiving K-8 or 7-12 certification who express a desire to teach in the middle grades would benefit from a single course specifically addressing middle grades education. This

is a tall order to fill, but it's doable and much, much better than no course at all. In the hands of an enthusiastic middle school zealot (if this person is not on staff, a classroom teacher known for expertise in middle level philosophy would be an ideal adjunct), the course may not only help educate candidates, but also inspire them to further study and instill in them an excitement so vital to effective instruction of young adolescents.

For universities that, for whatever reason, offer only one course specifically addressing middle level education, this article offers suggestions for course design. These suggestions do not include all elements necessary for quality teacher education programs, but rather concentrate on those elements unique to middle level teacher preparation. Using the NMSA standards as the guiding force, coursework and field experiences specifically addressing the tenets of middle grades education will provide powerful impetus for making middle schools the dynamic places of learning they have the potential to be.

Designing the Course

Given that one university course most likely consists of 45 contact hours and approximately 100 hours of independent study and work, it is acknowledged that none of the course elements suggested will be afforded adequate time to be fully explored. Although the course may be structured as an overview or survey course, the hope is that candidates will gain both awareness and a sense of "I want to know more" concerning tenets they read about, discuss, observe, and reflect upon. Opportunities for field experiences must also be considered. Ideally the course will be tied to one or more field placements allowing candidates to observe and participate in actual middle school classrooms and extracurricular activities. If this is not possible, arrangements should be made for candidates to observe young adolescents in real middle school settings.

Following are ten "must haves" in a course that serves as an overview of middle grades education. Incorporating all ten will

address the NMSA standards for teacher preparation (available at www.nmsa.org).

1. **Basic philosophy of middle grades education (Standard 2**). All of us have experienced early adolescence. By asking candidates to recall their own middle grades experiences we are setting the stage for a discussion of how best to address the developmental and academic needs of young adolescents. NMSA emphasizes balance between the concepts of academic rigor and developmental responsiveness for ALL young adolescents. Throughout the course attention should be drawn back to these two concepts.

2. **Awareness of resources (Standard 2).** For some teacher candidates this will be their first encounter with the fact that there is a national organization dedicated to middle grades education. Introduce candidates to NMSA through discussion and by accessing the NMSA website at www.nmsa.org. Explore the website with candidates in a "smart classroom" with a large screen and computer or in a computer lab. Go to the various parts of the site and discuss the value of each, along with benefits of membership in the organization. The online bookstore provides a look at the wide variety of resources available. Distribute issues of the Middle School Journal and Middle Ground, and encourage candidates to explore the topics addressed and share their discoveries with classmates. Have available for reading and use in projects and research at least the following literature, along with Middle School Journal and Middle Ground, and much more if possible.

    - *Turning Points* (Carnegie Corporation, 1989) and *Turning Points 2000* (Jackson and Davis, 2000) These are books that frame the philosophy of middle grades education. The original 1989 document outlines the tenets of an effective middle school. The 2000 update provides both the bases of philosophy and guidelines for implementation of the tenets.

- *This We Believe: Successful Schools for Young Adolescents* (NMSA, 2003) As the position paper of the National Middle School Association, this document, a revision of two previous documents in 1982 and 1995, is supported by ongoing research and provides guidelines for the creation of successful schools for young adolescents. The document clearly states eight characteristics of successful middle schools and six components these schools provide.

- *The Exemplary Middle School* (George and Alexander, 2003) This book not only covers the elements of the NMSA standards, but also information on exemplary practices and programs to help identify, and consequently learn from, middle schools that meet the needs of young adolescents.

- *Introduction to Middle School* (Powell, 2005) This comprehensive text addresses the NMSA standards from philosophy to student characteristics to curriculum, instruction, and assessment to creating and maintaining a learning environment that invites parental and community participation.

- *Teaching Ten to Fourteen Year Olds* (Stevenson, 2002) In many ways this book, revised from the original 1992 version, sets the standard for how teachers fulfill the promise of *This We Believe*.

3. **Student characteristics and diversity (Standard 1).** It would be impossible to create and sustain an effective learning environment for young adolescents without understanding their physical, intellectual, emotional, social, and character development. Young adolescents are no longer elementary children, nor are they like high school students. Their shared characteristics of development deserve careful study. Once a general knowledge of development is grasped, the rich

diversity of middle grades students must be addressed, from academic achievement levels to motivational differences to cultural and socioeconomic realities to learning styles…the list is long. Understanding of young adolescent development is necessary for the creation and maintenance of a productive learning environment where classroom management is a respectful process.

4. **Organization of people, time, and place (Standards 2 and 7).** Perhaps the foremost organizational structure of people in middle grades education is the interdisciplinary team. Candidates may have experienced team membership in their own early adolescence. Understanding the middle grades philosophy of heterogeneous grouping and regrouping of students for optimal learning is vital. Flexible structuring of time to allow for modification in curriculum and instruction has possibilities many teachers and schools overlook. The organization of place should include classroom arrangements within a building as well as within-classroom organization and structure.
5. **Content expertise (Standard 4).** Academic rigor will be a reality only when teachers are well versed in the subject(s) they teach. Emphasis must be placed on the necessity of depth and breadth of content knowledge. Methods courses taught within a school of education are vital, but they have little or no impact on the learning of young adolescents unless teacher candidates adequately understand, and have experiences with, the content they teach in order to place middle grades curriculum into a broader context.
6. **Curriculum and assessment (Standard 3**). Candidates should explore what it means to provide a curriculum that is "…relevant, challenging, integrative, and exploratory" (NMSA, 2003, p.19). They should understand the role content area organization and state standards play in the development and implementation of middle grades curriculum. The role of

assessment, both teacher-made and standardized, in the planning for what takes place in the classroom should be emphasized. While classes may be organized by subject area, integrating disciplines as individual teachers and within teams is a primary middle grades goal.

7. **Instruction (Standard 5**). Given the characteristics of young adolescents, it is imperative for teacher candidates to have full "instructional toolboxes" and understand the levels of planning (daily, unit, long-range). Principles of inquiry, experiential learning, cooperative grouping, motivational strategies, etc., need to be understood and practiced by candidates. They need to know when and how to differentiate instruction. They should also be familiar with strategies for connecting subject areas in instruction.

8. **Family and community communication and involvement (Standard 6).** Family involvement generally decreases for a variety of reasons when students enter the middle grades, including young adolescent development traits that may purposefully cause the to alienation of family in favor of peers, family intimidation stemming from memories of middle school, or from a sense that the content has become too difficult. Teacher candidates need to explore ways to not only keep families informed, but to also encourage their participation in the school and the classroom. The more involved community members are in the life of a middle school, the more understanding they become of the challenges and joys of early adolescence and the better off the school is for the assistance received whether in the form of after-school tutoring, business partnership resources, facility/grounds upkeep, etc.

9. **Professionalism (Standard 7).** Developing competence as a professional should begin during teacher preparation. Understanding the role of teacher and the responsibilities inherent in the collaborative, respectful, and productive

relationships with colleagues, families, and community members to enhance the learning of young adolescents are all part of professionalism. Continuing to learn about all aspects of teaching, using new knowledge and skills in the classroom, and sharing/consulting with colleagues to boost professionalism are all involved in growing as a professional.

10. **Day-to-day work of middle grades teachers.** Through school visits teacher candidates can see what it's like to be part of a middle grades classroom from a teacher's perspective. If this isn't possible, ask middle level teachers to be guests in the college classroom to talk about their work and answer questions that are sure to arise throughout the semester.

The inclusion of these ten components will help ensure a balanced introduction of middle grades education to teacher candidates. The course will be standards-based and will provide a foundation for either additional courses or for clinical practice in a middle grades setting. Teacher candidates are likely to begin their first position more versed in middle level philosophy and the support/resources available than the more experienced teachers on their teams and grade levels. Filling classrooms with MSBD-Middle School By Design- teachers will strengthen the legitimacy of middle level education and bring greater degrees of progress to middle grades education.

Sample Components of a Course Syllabus

Course Description

This course is designed as an overview of the basic aspects of middle grades education including middle level philosophy, student development and diversity, organizational attributes of middle grades settings, curriculum, instruction, assessment, instructional planning, classroom management, involvement of family and community, and professional development.

Course Objectives

Upon completion of this course, teacher candidates will:

1. Articulate the history of, and rationale for, middle schools.
2. Incorporate understanding of the unique physical, intellectual, emotional, social, and character development of young adolescents and the variety of ways young adolescents exemplify diversity.
3. Write reflectively about characteristics of effective middle grades teachers.
4. Articulate understanding of common and recommended structures of middle schools.
5. Relate the philosophy of the National Middle School Association to the various influences on middle grades curriculum.
6. Demonstrate a variety of instructional strategies, as well as articulate the theoretical bases for instructional choices.
7. Articulate the necessity and complexities of assessment, from classroom to standardized.
8. Demonstrate knowledge of the many levels of instructional planning.
9. Recognize and analyze the relative effectiveness of philosophies and strategies of managing the learning environment.
10. Write reflectively about the importance of family and community involvement, as well as strategies for assuring involvement.

Course Text

- *Introduction to Middle School* (Powell, 2005)

Course Requirements

Diversity Profiles

During field experiences candidates will develop brief profiles of four students to include, but not be limited to, the elements listed below. Candidates will keep a master list of the real names and pseudonyms of the students profiled. The finished project will identify the students by their fictitious names only. A profile form will be completed for each student.

The elements to be considered include gender, race/ethnicity, with whom the student lives (parent/guardian, siblings, etc.), academic achievement on previous year's state exam, physical description, attitude(s) toward school, favorite/least favorite subjects, and results of a learning styles/multiple intelligences inventory.

Learning Styles/Multiple Intelligences Inventory

During field experiences candidates will administer an inventory (provided by instructor) to one class of students. Candidates will compute results, inform individual students, and then synthesize the information in a one-page description of the class.

Interdisciplinary Unit Outline

In teams, candidates will create the basic design for an interdisciplinary unit based on a concept and including at least the four core subject areas and one related arts area. The design will include plans to address each of the basic interdisciplinary unit elements discussed in class.

Teacher Interviews

In pairs, candidates will interview two teachers on different grade levels using the interview questions as designated in class. A synthesis of teacher responses will be written for each interview.

Matching Instructional Strategies to Content

Candidates will select four instructional strategies discussed in the class text that appear to be particularly appropriate for one of their subject concentration areas. They will outline a lesson in which each strategy would be implemented, addressing curriculum standards, objectives, assessments, resources, and a brief description of procedures that include the chosen strategy.

Family Letters

Candidates will write three letters that could be sent home, addressing in each letter one of the following upcoming events/issues:

Back-to School Night
Family Conference
Special family event (like Family Math Night)
Possibility of uniforms
Field trip involving possible controversy
Need for volunteers for a specific project
Death of a classmate
Announcing after--school homework assistance availability
Request for chaperones for a specific event
Changing from "junior high" organization to the middle level concept of teaming
Implementation of a new discipline system
Requesting donations of some items for a particular purpose
Candidates will work together to decide who will write on which topics, making sure each is addressed by someone.
Candidates will assess each other's letters using a rubric provided by the instructor.

Personal Journal

Candidates will respond to the personal journal prompts given in class.

Individual Activities

Candidates will complete the Individual Activities at the end of each chapter (Powell text) as directed by instructor.

Group Activities

Candidates will participate in the Group Activities at the end of each chapter (Powell text) as directed by instructor.

Professional Practice

Candidates will respond to the Professional Practice (Praxis II style) exercises at the end of each chapter (Powell text).

Final Writing Experience

As a culminating activity, candidates will complete a writing exercise that requires viewing the course concepts in perspective and considering personal philosophy concerning middle grades education in response to a scenario.

Quizzes

There will be three quizzes during the semester covering assigned reading in the text (from Powell text Instructors Manual).

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Project Inquiry: An NSF-Funded Professional Development Model for Promoting Scientific Inquiry in Middle Level Classrooms

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Developing a nation of scientifically literate people has never been more important than it is now that we have entered the twenty-first century. Science enables people to creatively problem solve and to understand the natural world. Unfortunately, critiques of science education (National Center for Education Statistics, 1999) have consistently reported that the achievement of American students is less than that of their international counterparts in the areas of science and mathematics. These results indicate a strong need for the United States to re-examine science and mathematics education. Spillane (2001) states that in response to this report the National Research Council (NRC) published the National Science Education Standards (NSES) in 1996. These standards were written to characterize goals for reform in science education by describing what it would mean to be scientifically literate in today's society and to provide guidance to those involved in changing science curriculum and teaching. This document offered a challenge for educational reform and provided a framework for its construction by calling for dramatic changes in science teaching throughout our nation.

The South Carolina Department of Education (2000), as well as numerous other state departments of education, responded to this call by incorporating the NSES into their own state science standards with particular emphasis on inquiry-based process skills

and pedagogy. One immediate result of the implementation of standards-based curriculum was the need for professional development opportunities designed to address both the content knowledge of teachers and effective use of inquiry-based instructional strategies. This need, as well as the need to effectively address the achievement gap between African American and white students regarding science achievement, provided the impetus for the development and implementation of Project Inquiry (#ESI-99868690), a $5,180,000 five-year, National Science Foundation (NSF) funded grant based in the Berkeley and Charleston County School Districts of South Carolina. In an effort to communicate with other stakeholders interested in the professional development of middle level teachers, we describe in this paper the middle school portion of the collaborative program model implemented in these two South Carolina school districts.

Theoretical Framework

The National Science Teachers Association (NSTA) addresses major elements including needs of young adolescents, model programs, model teachers**,** necessary resources, and professional interactions in their standards for teacher preparation (NSTA, 2003). "The standards state that science is something students do, with inquiry central to science learning" (Powell, 2005, p.159). The theoretical framework used in the design and execution of the programmatic components of this project incorporates NSTA elements in order to make science something students do. A primary focus is the structure, function, and content of professional development opportunities for in-service science teachers that will lead to inquiry-based instructional approaches for the teaching of science.

Current reform movements in science education advocate for the development of science inquiry classrooms, where students combine processes and scientific knowledge as they use scientific reasoning and critical thinking to develop their understanding of science (NRC, 1996). One inquiry approach to science teaching is based on the view that students learn by resolving discrepant

events that challenge their current conceptual understanding. Students demonstrate their understanding by making choices during scientific inquiry and then providing rationales for those choices rather than simply following procedural instructions provided by the teacher (see for example Bonnstetter, 1998; Crawford, 2000; Edelson, 2001; Park, 2002; Yerrick, 2000). This example of an inquiry-based approach is much different from how teachers themselves learned science, as well as how most had been teaching science.

Both the initial middle level teacher preparation standards and the master teacher standards of the National Middle School Association address teacher content knowledge and classroom curriculum, instruction, and assessment. Standard four is entitled "Middle Level Teaching Fields" and calls for teachers to "understand and use the central concepts, tools of inquiry, standards, and structures of content in their chosen teaching fields" and to "create meaningful learning experiences that develop all young adolescents' competence in subject matter and skills" (NMSA, 2002, p.11). Standards three and five address appropriate concepts and strategies for middle level curriculum, instruction, and assessment. Professional development serves as a critical element in the facilitation of teachers learning content in greater depth and breadth along with ways to implement inquiry-based teaching approaches in curriculum, instruction, and assessment.

Professional development of teachers in science education can be described as opportunities offered to educators to develop new knowledge, skills, approaches, and dispositions to improve their effectiveness in their classrooms and organizations. Commonly known as in-service training, professional development historically was delivered through workshops that concentrated on conveying information, providing ideas, and training in various skills. This approach to professional development offers teachers an assortment of resources, but often teachers' learning ends with the completion of the program rather than continuing every day in their classrooms. More recently, professional development has evolved to focus on sustained individual growth and a more systemic, integrated perspective on enhancement across cohorts of

teachers (see for example Loucks-Horsley, Love, Stiles, Mundry, & Hewson, 1998; Westerlund, Garcia, Koke, Taylor, & Mason, 2002). Program designers for Project Inquiry seriously considered this evolution and incorporated many of the insights gained into a unique model that employs many of the components currently considered to be best practice in professional development.

Program Model

Like other programs (see for example Brand, 2002; DiBiase, Riley, Cathey, & Nattaradol, 2002; Lomask & Brown, 2002), the professional development experiences of Project Inquiry focus on improving teacher use of inquiry-based instructional strategies. A dynamic, state of the art design that incorporates several novel components is implemented to reach the primary goal of the program, to improve the science literacy of all students in the Berkeley and Charleston County School Districts by encouraging teachers to choose their path to best practice for their classroom. Program leaders aimed to meet this goal through a system-wide science improvement plan that includes the completion of 135 hours of professional development in inquiry-based content and pedagogy by third- through eighth-grade classroom science teachers. More specifically, the Project Inquiry plan consists of: 1) enhancing teachers' science content knowledge; 2) familiarizing teachers with effective instructional materials and helping them learn appropriate pedagogy to develop students' conceptual understanding of science; and 3) providing ongoing support as teachers use the instructional materials in their classrooms.

Enhancement of Content and Pedagogical Knowledge

Project Inquiry has employed a multifaceted approach to improving instruction, and consequently achievement, in science classrooms. The professional development approach began with the adoption of several science programs, such as the Science and Life Issues (SALI) and Science Education for Public Understanding Program (SEPUP) kits which provide an integrated curriculum that focuses on hands-on investigations, environmental issues, technology, higher order thinking skills, and cooperative

learning. Each module provides teachers with in-depth science content background as well as information about scheduling the activities and organizing the classroom and students for effective implementation. They also use Full Option Science System (FOSS) activities to provide experiences for students to observe, describe, sort, and organize ideas about objects and organisms. They classify, test, experiment, and determine cause-and-effect relationships. The middle level FOSS kits also promote the use of cooperative group work involving students in the collection and analysis of data and the reporting of group results. FOSS (Lawrence Hall of Science, 1995) has two major goals:

1. Scientific Literacy – to provide all students with science experiences that are appropriate to their cognitive stages of development and serve as a foundation for more advanced ideas that prepare them for life in an increasingly complex scientific and technological world.
2. Instructional Efficiency – to provide teachers with a complete, flexible, easy-to-use science program that reflects current research on learning and the latest instructional methodologies.

These goals support inquiry teaching and all the kits provide teachers with a hands-on, ready-to-implement curriculum that is combined with other inquiry-based instructional strategies. Project Inquiry periodically assesses the combination of instructional materials and strategies for effectiveness.

To support the use of national and state science standards in the classroom, Project Inquiry offers Science Inquiry Institutes, Assessment Institutes, and Science Standards Institutes that provide teachers with 135 hours of professional development. The Science Inquiry Institutes provide professional development experiences modeled after San Francisco's Exploratorium. During these institutes, participants learn about and acquire the tools necessary for applying inquiry approaches in instruction. Sessions are characterized by considerable focus on student thinking and

learning as well as the types of activities and strategies best suited for inquiry approaches to science education.

One of the more novel components of the program includes teachers learning science content through the use of the same strategies that they will eventually use with their students such as authentic science investigations and class discussions. Teachers also learn inquiry process skills and practice those skills through problem solving activities. The Science Standards Institutes are organized by grade level with participants addressing the South Carolina science content and process standards.

Project Inquiry also includes science content graduate courses. These courses are interdisciplinary science courses taught at the College of Charleston that provide teachers with formal opportunities to learn science concepts in the fields of geology, biology, chemistry, and physics. Examples of course offerings include: Applications of Physics for Teachers, Space Science for Teachers, and Topics in Botany for Teachers. Teachers are very enthusiastic about these courses and find they match the state curriculum standards and help them to understand the science content as described in the Content Standards: 5-8 of the *NSES* (National Research Council, 1996).

Long-Term Support

Professional development models that expect teachers to implement and sustain classroom changes with no support from administrators or peers are nearly impossible to sustain. Administrative support is crucial for the survival of the project. Project Inquiry provides training for school-level administrators to familiarize them with their role in supporting teachers' efforts to implement hands-on science. Expected support includes helping teachers reflect on their practice; building networks so that teachers can learn from each other; keeping the focus on staff development for enough time to permit teachers to internalize the change; helping teachers overcome conditions that may work against the continued development of the focus of the staff development; facilitating dialogue and communication among

teachers; providing time for trained observers to monitor progress in the schools; and providing a sounding board for problems (Friel & Bright, 1997). Additional administrative support comes in the form of the districts providing teachers with needed materials and equipment as well as the means to maintain those resources. For example, to maintain consumable items found in the kits, the Science Resource Center, established by Project Inquiry, refurbishes kits and distributes them to schools in accordance with an established schedule.

Program leaders consider on-site specialists to be critical to successful long-term reform efforts in schools. Consequently, all Project Inquiry schools are assigned a Lead Science Teacher (LST) who serves as the contact person between the school, the Science Resource Center, and the project directors. These on-site specialists also coordinate the distribution of kit materials in their schools and conduct focus seminars, grade level meetings, and professional development activities with the teachers in their schools throughout the year. Additionally, Project Inquiry program leaders provide LST's training in coaching and mentoring skills during Leadership Academies for a total of 180 hours of professional development. The LST's employ these skills in helping teachers examine their own practice and reflect on ways to enhance classroom instruction. A Science Resource Teacher (SRT) is assigned a set of schools with which to work in the implementation of the designated materials. The SRT's primary job is to design professional development and to support teachers in their implementation of an inquiry approach to science through mentoring, modeling lessons and use of science notebooks, coaching, and one-on-one training. These support strategies occur in the contexts of countywide workshops, institutes, and individual classroom visits.

The purpose of the Project Inquiry's use of science kits with accompanying professional development is to challenge middle level teacher beliefs about the teaching and learning of science and, in turn, impact their instruction in positive ways. The program is designed to address teachers' professional knowledge and resources rather than simply adding recipe-like teaching

procedures to their repertoire. Throughout the many and diverse institutes, teachers are presented with challenging hands-on inquiry-based problem situations with institute instructors using approaches and framing instruction in ways similar to what participants would eventually implement in their own classrooms. Using professional development institutes geared toward adult learning, providing a variety of hands-on activities and resources, and ensuring long-term support for teachers, Project Inquiry serves as a model for advancing effective inquiry-based science instruction in middle level classrooms.

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Continuing Research Makes a Case for Professional Development Schools

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Professional Development Schools (PDSs) have become prominent as teacher education program models in the past decade. The National Council for the Accreditation of Teacher Education (NCATE) (2001) developed standards for PDS programs to help establish quality controls. As the field of education enters into an era of even tighter quality control issues, teacher educators have realized the need for more research.

Hausfarther (2000) reported that prior research about PDSs, although limited in scope, pointed to the recent growth in the number of PDSs around the nation. PDS teacher interns frequently worked in cohort groups, supporting one another intensively. Research showed that field experiences in PDSs tended to be more structured and occur earlier in the pre-service teacher's experience than those occurring in traditional programs. Also, the author described research that showed PDS students are often better prepared for classroom teaching as a result of PDS experience. Importantly, PDSs appeared to be more enabling and empowering for those participating. On the negative side, the author contended that the research revealed little attention being paid to detailed studies regarding teaching, learning, outcomes, and some equity issues dealing with teacher interns.

Unfortunately, the author stated that actors in the PDSs often insisted on creating a structure that functioned perfectly from the very beginning to effectively and efficiently meet the needs of all participating. Other difficulties were maintaining a relationship with public schools involved in the PDS group and allowing university faculty to perform their functions adequately to their own satisfaction.

Proctor, Wagstall, and Ochoa (1998) reported positive perceptions among PDS interns in a variety of areas, including technology, within an urban elementary school. The authors pointed out the PDS field experience increased the students' ability to deal with culturally diverse students effectively. Success stories about interns building self-esteem, developing positive behavior, and doing successful mentoring with elementary students were common. It was also noted that support and constructive criticism from mentor teachers were very helpful to the interns in the classroom.

The most successful teacher education programs do not separate class work and field experiences, they blend them. (The National Commission on Excellence in Teacher Education, 1985 as cited in Marzano, 2003) Consistent with this finding, another researcher, Field (1994) (as cited in Marzano, 2003), argued that pre-service training is the best time for interns to understand the link that lies between theory and practice in teaching. PDSs seem to fit this model with time intensive classroom teaching.

The research conducted for this study of the university/school partnership was compared with conclusions and perceptions of the known research. Also, it was decided to perform a study of perceptions to assist in the evaluation of the grant-related program.

A Look at the University/School PDS

Background

The teacher education program is a highly competitive program at this university and admits only 120 students each fall. Most of the students are in their junior year of college. Three state education agencies, Board of Higher Education, State Board of Education, and Community College Board, received a multimillion-dollar federal grant to enhance the pre-service education and in-service professional development of middle level teachers.

PDS Cohort

These students, consisting mainly of interns interested in teaching at the middle level, were divided into four cohorts of thirty students each. Over the first year, the number of interns in the cohort was lowered to 25, due to a variety of factors. During the first year, interns were in classrooms Tuesdays mornings and all day Thursdays. Tuesday afternoons were used for on-site seminars. The interns had three ten-week rotations in different grade levels, with one rotation in an elementary school. During the second year, the interns were in the classrooms full-time, except for Tuesday afternoon seminars and four full-day Friday methods seminars. University faculty members were in the schools all day Tuesdays and Thursdays during the first year and at least 2-3 days a week the second year.

Technology integration and use was an important component of the grant. As such, the PDS cohort developed their technology skills and technological knowledge base. Each intern was given a hardware package consisting of a personal digital assistant (PDA), a laptop computer, and printer. During the summer between the first and second year of the program, the interns participated in an Eisenhower grant with middle level teachers to develop online interdisciplinary thematic units for middle level grades. Additionally, each intern was introduced to web page design and development. They also experimented with flash animations and other design components. These tools were used to develop a personal web page, an online resource guide for middle level teachers, and an experiment in Information Architecture, mapping out and designing online professional development modules on middle level teaching concepts.

Finding the Interns' Perceptions About the PDS

Two qualitative techniques were used to gather data from the middle school and university sites about the perceptions of

PDS student interns concerning their PDS experience. First, a structured discussion toward the end of the first year with all the interns and the recording of specific positive behavioral events with needed improvements in the PDS was conducted. (N=30) Second, a written questionnaire for interns was used near the end of the second year with selected PDS interns who represented a sample of interns. (N=8) It emphasized perceptions of goals, activities, successes, and problems of the PDS interns both pre and post to the time of participation.

Structured discussion. The following were the written consensus/conclusions from the structured discussion.

Class time. It was apparent that almost all PDS teacher interns felt that the time they were in the classroom was one of the most valuable of all events of their experience. Class time seemed to be a "real" experience, not a contrived one in a laboratory school and/or a field experience for interns. They weren't just talking about teaching they were doing it and from the discussion it appeared they developed confidence in themselves by doing so.

Classroom Management. Classroom management was an eye-opening experience for the teacher interns. They saw the need for training in classroom management and asked the university staff for more training in student discipline.

Teacher Attitude. The teacher interns perceived that a teacher's attitude makes a difference and is reflected by classroom achievement and behavior. While often mentioned in methods classes, this component came to life for the teacher interns. As one intern pointed out, "Teachers who don't care [about student learning] model that for their children who develop the same attitude".

Mentor Teachers and Support of the Teacher Interns. Teacher interns believed that coming together as a group with mentor teachers and other teacher interns resulted in a very

supportive atmosphere and helped to ease the "jitters of teaching" as one commented. They felt free to talk to others in the program in order to learn about issues, lesson plans, and so forth. The teacher interns felt that working together allowed one to learn together about what works in the classroom and what does not. In the discussion, it was noted that this wouldn't happen in a traditional student teaching program. Constructive criticism and flexibility from mentor teachers helped the teacher interns as the teacher interns had other tasks to complete and needed extra time to do it. "Authentic collegiality", or "…openly sharing failures and mistakes, demonstrating respect for each other, and constructively analyzing and criticizing practices and procedures" (Fullan and Hargreaves as cited in Manazo, 2003) is what appeared to be have developed during the first year.

Teaching Philosophy. The teacher interns developed a perception that this PDS experience enabled them to discover their teaching philosophy, teaching goals, and teaching styles. It allowed time for reflection and self-discovery in a professional atmosphere. A variety of experiences with different teachers allowed for more varied perspectives and the development of a personal teaching style for themselves.

Working with Different Grade Levels. Working with different grade levels allowed them to evaluate their "true calling" and open new doors, though they were still concerned about upcoming grade levels and/or school changes during the rotations.

University Faculty. The teacher interns believed that the university faculty really put forth an effort to be helpful to them. It made them feel safer to help resolve issues at the PDS site when a university faculty person was present. Yet, they believed that more communication between university instructors, who were not necessarily the faculty on site, should have increased.

PDS Program. The PDS program has evolved and matured since its beginning. More student interns are teaching and not just

observing. More care is still needed, the interns thought, in the placement of PDS students in assignments, however.

Intern questionnaires. Interns also participated in the research by filling out questionnaires designed to show pre and post perceptions. The interns' questionnaires revealed the following perceptions.

Pre-experience Perceptions. By and large, the interns believed the goal of the PDS was to provide them higher quality professional training and education on how to work in elementary and middle schools. The seminars, mentor teachers, university staff, and K-9 students would support and/or play a positive role in such experiences. Most expected the mentor teachers, as one said, "…to mold me into a teacher…learn from their experiences…. whether I agreed with [it] or not…." Some thought they would be overwhelmed with course work, teaching, etc. and there would be conflicts with K-9 students who might view them as "fresh meat". Others perceived that mentors would give constructive criticism and allow interns to try new ideas that they had learned. Many had very high expectations about the skills of the mentors. Many thought that K-9 students would benefit from having "…new faces…" in the classroom and would learn more. Some looked forward to being exposed to many different teaching styles of their mentor teachers. Some felt they would be prepared to teach by this experience. They perceived such problems as "cliques", stress, and clashing of ideas with mentors or others. Some looked forward to an educational experience across grade levels, while others were concerned about competition among themselves. Fears that some mentor teachers would have expectations those interns would not be able to meet were present, also.

Post-experience Perceptions. Interns were asked about their perceptions on three particular issues in their experience with PDS: goals, successes, and problems.

Goals. Many felt, after participating in the 2-year PDS program, that the goals of the program were the same as before they participated: to allow for well-rounded professional development that allowed a comfort zone to develop for an intern when in charge of a classroom. Included was the continuing theme about the program providing more teaching time in the classroom and less time spent in methods classes. Another continuing theme among the interns' responses was the lack of understanding of mentor teachers concerning their roles in fulfilling the goals and how they worked with the intern. Some said many mentors only wanted a secretary. Some interns felt they had a "reality" experience of being responsible for the learning of children in the PDS program. Also, the experience was meant to challenge them many believed. By being in different environments interns were forced to grow and change.

Successes. Successes for some included "…an uncanny ability to adapt to changes, handle stress, and maintain my professionalism…." One simply felt the program was a great idea; but not appropriate for all interns. Another felt more comfortable in the classroom and now had a good plan for the first year of teaching. Learning positive discipline in classroom management in this PDS program was an important reason for that confidence. One concluded that their ability to shuffle the curriculum for both the struggling learner, as well as the gifted, and use positive discipline models was developed in the program. Some saw mentor teachers using new ideas gleaned from some of the PDS interns, discussions, and presentations. Interns, as well as the K-9 students, developed new perceptions about diversity at their schools. Some urban K-9 students admitted to interns that they had never talked to "white people" and some interns admitted that they had not talked to many minority students. The program fostered cultural communication and understanding. Several contended they have grown emotionally as a person and a teacher, learning more than they would have in a traditional program. Working one on one with students and having a mentor who was really a mentor was a success for some. "… I have grown so

much as a person…out of my personal comfort zone…can not imagine to [to go to] teach…[without this] real world experience…" Having an intern pushed mentor teachers to be better teachers many interns perceived. Interns believed that they helped K-9 students in ways the mentor teachers would not have and, as a result, a lot of K-9 students' self-esteem was raised. Interns had the opportunity to be involved with many programs that one would never have in a traditional program. Some others felt they touched many lives in their classroom teaching, and others believed the close bonds among interns were helpful.

Problems. The most common issue perceived was that the program was poorly organized, but that it was better the second year. In the first few weeks of the program, university faculty were required to make changes in the format of the program. This caused great stress for the faculty and students. For some, it was a problem that there were "…good days and bad days and not everyday was a good day…" Being placed with ineffective teachers or those who did not know anything about mentoring was disappointing and almost too much for some interns. Combining course work with field experience meant some couldn't give their best to anything; burnout followed. Lack of time was a common theme. Juggling teaching, methods assignments, and changing due dates for method seminar assignments was the second most common theme. Yet, some of the interns were "cry babies" one complained, noting that the interns were working for a degree and should expect it to be tough. A few interns just wanted to stay within their comfort zones, others argued. Some felt they were suffering stress and were scared to graduate because they didn't feel prepared. Some mentor teachers didn't share their classrooms as much as some interns wanted. Dual teaching styles for the K-9 students may have caused problems in learning. Looking back, several interns felt not all interns took advantage of the opportunities given to them to grow.

What do the Perceptions of the PDS Interns Mean for Pre-Service Education Students?

First, it can be seen that the positive and negative issues identified in the prior body of research were duplicated for this middle school PDS. It was expected that some of the same perceptions would appear in the data streams from these teacher interns.

Second, this PDS experience, as perceived by the interns, apparently gives a more thorough, in-depth, and challenging experience to prospective teachers than other pre-service programs. The interns underwent an experience that most traditional programs cannot even approximate, let alone duplicate. Many traditional programs do not emphasize diverse teaching over a two-year period. Interns became part of a cohort group and developed beginning professional "authentic collegiality" in a way few traditional programs have emphasized. As a result, many interns found, as one said, "…my true calling…." as far as grade level and teaching were concerned. Prior research had shown that PDS programs empowered their participants as this study indicated here.

Third, while some interns felt unprepared to teach from this experience, a great number felt they had the needed confidence to enter a first year classroom and teach. It was questionable for many how a person could do a good job of teaching without a PDS experience. Almost all agreed that the classroom time involved in teaching was invaluable and an experience they thought would help them in their careers. In fact, some argued that this was more valuable than the methods classes and/or seminars. Burley, Yearwood, Elwood-Salinas, etc. al. (cited in Marzano, 2003) concluded similar ideas about class time experience.

Fourth, reports of helping students learn and raising self-esteem abounded. Prior research, as mentioned before, indicated that when the goal of K-9 student learning was prominent, all the other issues of the PDS fell in line behind it.

Fifth, technology was a primary component of this PDS and student interns were highly trained in developing programs,

programming, and use of technology in the classroom. They were empowered with a great amount of information and each received a laptop computer/PDA for their use. An electronic discussion group was devised to help meet the need for more help with discipline and other issues. No PDS should ever ignore this component; the age of technology in education is crucial.

Sixth, student interns had high expectations, sometimes unmet, of their mentor teachers. Constructive criticism from mentor teachers helped the teacher interns. The interns appreciated the flexibility of the mentor teachers. Silva and Dana (2001) found these items to be important elements in effective supervision in a PDS.

In general, the perceptions of these student interns, as well as around the nation, appeared to show some very positive views of the goals, successes, and experiences about their teaching experiences in a PDS. Models of pre-service education are at a crossing point. For the PDS model, either effective research will be used to buttress its experience, nationwide, for future student interns or it will be ignored and the model will be lost. Simply put, the PDS model needs to be kept and improved because preparing the new generation of effective teachers demands it, especially with middle level learners who need experienced teachers specifically trained in meeting their needs.

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Middle School Teachers-in-Residence: Wholistic Analysis of Findings from Interviews

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Educational reformists over the decades have called for various types of reform within our American educational system from the elementary school level on through the university level teacher education programs. Since the 1980s, various groups or commissions advocating educational reform of teacher educational programs (e.g. Carnegie Forum, 1986; Holmes Group, 1986; National Commission for Excellence in Teacher Education, 1985) have touted the addition of a K-12 school teacher to university staff as one such reform strategy. Documented over the years in the research literature as well as published informally via websites from various higher education programs, the Teacher-in-Residence position is not a new concept. Whether these roles are identified as Teacher Collaborator, Scholar-in-Residence, Teaching Associate, Teaching Fellow or Distinguished Teacher-in-Residence, they place a K–12 classroom teacher into a different professional environment, utilizing their education and content expertise in sometimes different ways to achieve educational goals. As part of a Teacher Quality Enhancement (TQE) grant in which a consortium of mid-west universities participated, such a residency program was established. One such mid-west university titled their 2-year position as Teacher-in-Residence and narrowly defined this term as a certificated teacher employed to teach within a middle grade level classroom who is partially or completely relieved of said classroom duties for a limited time period to serve as adjunct faculty teaching or co-teaching the teacher preparation courses as well as engaging in departmental planning activities, reflective practices and education research. The anticipated purposes of this position included enhancing the pre-service teacher preparation program for middle grade instruction as well as performing research regarding best practices for middle grades' instruction and

to assist in coordinating various collaborative activities and partnerships under the grant. Three different work models for a Teacher-in-Residence were utilized during the three-year grant cycle: immersive, mentored and shadowed. The mixed results not only verified what has been described in the research literature, but also revealed the need for re-prioritizing at the university level in order to sustain sound practice while revitalizing teaching scholarship within the university's ranks and among middle level educators.

Residency Intentioned

The Teacher-in-Resident position was filled by three middle level teachers who were employed for a two-year period using overlapping cycles throughout the duration of the grant. These three teachers-in-residence (TiR) were assigned the same faculty member as mentor, however each was assigned a different work schedule with staggered starts. The first TiR was employed under the immersive model and after the first year was completed served as the mentor to the second resident teacher who was hired for the next two-year overlapping cycle. The mentored (second) resident teacher was trained by the immersed (first) TiR. The mentored model was employed only during the summer months. During the second term of the mentored teacher's summer work, a third resident teacher was hired. The third TiR shadowed both the first and second TiR prior to engaging in her position part-time to begin the following semester. The shadowed TiR was employed half-time in the mornings at her middle school and half time in the afternoons/evenings within the university's College of Education.

Each of the Teachers-in-Residence was interviewed throughout her term, being asked the same set of open-ended questions. Each was free to elaborate based upon their own level of comfort with the topic and the interviewer. The answers related by each TiR demonstrates the complexities involved with the teaching and learning processes, the influential nature of school politics, the importance of compatibility to the relationship of the resident

teacher and faculty mentor as well as the inexorable emotional pull a students exert upon their teacher.

Wholistic Analysis and Commentary

The perceived impact of the Teacher-in-Residence experience upon each educator's own classroom instructional methodology was noted as the foremost positive contributor to their growth. These resident teachers acknowledged that through discussions with the different faculty regarding teaching, they received verification from the research regarding instructional methods they regularly employed and in reciprocity could provide faculty with descriptions of successful instructional methods that could serve as real world examples for the preservice teachers. The perception that through the resident teacher's research and critical discourse with their pre-service teachers and faculty members, the Teachers-in-Residence enhanced their repertoire of instructional methods which enabled each to return to his/her own classroom and colleagues with more effective methods of instruction. This renewed sense of self-efficacy has been borne out in the literature many times, and stands as a reminder of the unappreciated value of teachers.

Despite the requirement to teach one middle school methods course, the Teachers-in-Residence experienced a vast variety of opportunities that reportedly led to increased growth in leadership skills. Acting as a liaison for the university to local schools, some participants were able to observe other classroom educators teach and engage them, in discussions regarding their own instructional methodologies as well as needs for further training. Such a link provided the university with additional information regarding the local public schools it serves and increased discussion among area teachers, thus breaking the sense of isolation most classroom teachers experience daily.

As an outsider to the university culture, these resident teachers were able to provide valuable objective insight into the content and methodologies used in pre-service teacher coursework. As made vivid in their descriptions, they were instrumental in

making positive changes to courses of study in terms of content emphasis and materials used. They often augmented readings with hands-on experiences and created classroom scenarios that provided pre-service teachers with simulated experiences that they would more than likely encounter in their early careers. The TiR were able to inject a plethora of ideas into their discussions and demonstrated a great capacity to continue to forge ahead when activities did not proceed as envisioned.

Through discussion it was revealed that the immersed resident teacher was able to participate more completely and at a more consistently deeper level than her other two counterparts. Although all three felt accepted into the university culture and felt acknowledged on a personal as well as professional level with the faculty, the mentored and shadowed resident teachers perceived they had fewer opportunities to interact professionally with faculty and that most of their interactions concerned questions and answers revolving around course instruction, technological equipment usage, administrative paperwork, and working with pre-service teachers as students. Only the immersed resident teacher felt she had experienced discussions at a more in-depth level that concerned teaching scholarship or middle school pedagogy, although all three resident teachers expressed an affirmative response when queried that they had increased their knowledge of instructional methodology as it related to theory, as well as put into classroom practice.

Both the mentored and shadowed resident teachers noted negative impacts in regards to their schedule. The shadowed resident noted that she commonly was torn between the two educational institutions with a need to be present at her middle school due to political and collegial pressure as well as the expressed and unexpressed needs of students and their parents. This relates to an oft made comment by the teachers in general that there is no such thing as a part-time teacher. This is due to the fact that a good teacher is always thinking about their students and how to best affect their learning as they attempt to deal with issues within their own inner dialogue that transpires on their own time. Heeding these needs, the shadowed resident teacher reluctantly left

her residency early in order to return full time to her classroom duties. The mentored teacher however, merely felt that her training and compressed experience was inadequate at bringing her more completely into the university culture and that the morning training followed by solo instruction of the same course in the afternoon led to many student difficulties for which she believed she was inadequately prepared. All three agreed that a full time, two-year stint of residency was the ideal schedule as it allowed for complete immersion in their professional learning and the tasks that needed to be accomplished. Despite these negatives both acknowledged how valuable their experiences were overall and how they did indeed experienced growth professionally despite any difficulties.

In retrospect, these three resident teachers were quite satisfied with their overall experiences and itemized only a few additional experiences in which they would have preferred to be engaged. They believed that their critical discourse with pre-service teachers, inservice teachers and faculty regarding teaching pedagogy and research, their ability to participate more completely in professional organizations and their ability to read and have the time to reflect upon the research literature provided them with a rejuvenating life experience from which they were able to return to their classrooms with a refined knowledge and a multitude of new skills.

One aspect of their work as Teachers-in-Residence was to review the latest research concerning education. Having the time to perform web searches, to access journal articles and to critically read the research was cited as one of the best parts of their work. Through this critical inquiry into the research literature, these resident teachers were empowered by knowledge that confirmed what their classroom experiences had previously informed them of and also engaged them in greater understanding of the connection of theory to classroom instructional strategies.

Literature Findings

Recurring perspectives abound in the literature as to the impacts of engaging in a Teacher-in-Residence program. Most of

the literature concerns the participants' (university faculty, teachers, and pre/in-service teachers) perspectives of what was received from their experiences. University faculty have provided insights regarding the benefits as being confined to enhancements concerning interactions and coursework among which included increased communication between schools and universities regarding training needs and student teachers' performances (Heikkinen, McDevitt, & Stone, 1992), as well as course enhancements including more focused instruction with increased depth for education courses (Heikkinen, McDevitt, & Stone, 1992) and greater emphasis on modeling and discussing a variety of effective instructional strategies (Heikkinen, McDevitt, & Stone, 1992; Cole, 1995). These teachers also assisted in sensitizing the university faculty to common classroom problems and the daily routine of the classroom (Daane & Waltman, 1999). One study noted the "dynamic exchange" (Cole, 1995, p. 522) engaged in between teacher and faculty member during course planning in regards to the best instructional methods for delivering course content. University faculty in other studies noted that engaging in discussions concerning instructional practices heightened their awareness of teaching scholarship and encouraged them to undertake educationally sound instructional techniques that were new to them (Mark, 1991).

The resident teachers have commonly cited benefits to their self-esteem, self-efficacy, theoretical knowledge and leadership abilities. Increases in self-esteem have been perceived by most residents in these programs as evidenced in a variety of reviews published on the worldwide web with statements supporting their perceptions of validation for classroom work through their university-level interactions (Lemma, Ferrara, & Leone, 1998). Overall, teacher participants have noted a sense of professional renewal (Heikkinen, McDevitt, & Stone, 1992) or a renewed commitment to the teaching profession (Kagan, Dennis, Igou, Moore, & Sparks, 1993). The participants have also indicated increased knowledge of educational theory and updated research knowledge due to the opportunity for concentrated research and reflection time (Reiss, 1997). Teachers-in-Residence have stated

that participation increased their content knowledge regarding the course they were required to teach (Cole, 1995). Others have stated that they were able to experience growth in their theoretical constructs and were able to expand their critical discourse as they developed a sense of becoming part of an encompassing community of learners (Lemma, Ferrara, & Leone, 1998). In one case, district administrators noted an apparent increase in their participants' energy level upon their return to the classroom (Heikkinen, McDevitt, & Stone, 1992). Researchers have also found that post-residency teachers have assumed leadership roles within their districts (Stenmark, Thompson, & Crossey, 1986; Heikkinen, McDevitt, & Stone, 1992). Preservice teachers noted "enhancement of the undergraduates' views of teaching as a profession . . . ." as well as providing courses with greater credibility for classroom application (Heikkinen, McDevitt, & Stone, 1992, p. 285). Regarding the team teaching aspect of two Teacher-in-Residence programs, researchers indicated "a much richer classroom experience" (Fisher & Owens, 2001, p. 3) for their pre-service teachers as well as a good model of effective classroom practices being offered by their resident teacher (Lemma, Ferrara, & Leone, 1998).

Perspectives regarding the negative impacts of a Teacher-in-Residence program noted work culture differences that needed to be overcome before productivity could increase (McNerney, 1991). However once these cultural differences were overcome, new roles and collaborative relationships were formed (Lemma, Ferrara, & Leone, 1998). An informal survey of teacher-in-residence programs described on the worldwide web revealed that once funding resources were exhausted, the residencies were discontinued and the collaborations eventually dissipated. Consideration needs to be given by the participants' school districts in regard to providing ongoing professional development for these teacher-leaders who return refreshed to their classrooms. Once professionally stimulated to continue growth within their profession, these educators need well-supported opportunities to delve into their own professional scholarship of teaching (Porter,

1987). Though not a direct negative impact of a Teacher-in-Residence program, it is a detractor nonetheless

Recommendations for Teaching Scholarship

Many insights were garnered and likewise many lessons were learned from this Teacher-in-Residence program. Considerations regarding everything from selection criteria to goal setting to release into the classroom needs to be carefully formulated in order to ensure overall program success. As was cautioned in the literature (Heikkinen, McDevitt, & Stone, 1992) personality and aptitudes need to be appropriately matched in order to secure compatibility between faculty member and resident teacher. The teachers must be well respected leaders among their own colleagues and must have complete support from their colleagues throughout their residency. The total immersion model appears to be the model of choice for most institutions implementing a Teacher-in-Residence program. Despite the disadvantage of losing an efficacious teacher from the classroom for many months, complete immersion at the university site is necessary in order for the individual to be fully incorporated into the university culture without other professional distractions. Most dedicated classroom teachers are aware that there is no such thing as teaching part-time as a teacher is either completely involved in the teaching and learning processes with his/her students or a teacher is not involved at all in the classroom.

Professional goal setting is also important to the program. Setting goals ensures that the resident teacher is not distracted by too many opportunities thus losing sight of intended outcomes. Time for reflection and professional dialogue needs to be a stated goal that is allocated time within the weekly schedule. It is through such critical thinking and professional discourse that the scholarship of teaching remains the focus.

The use of resident teachers to fill adjunct teaching positions or technical positions within a university is simply not sound practice. Neither does it meet the original intent of reform which consisted of the blend of theory and fresh-from-the-

classroom practice to take place in a collaborative teaching environment. Program cohesion and alignment is essential to the success of any university education. This cannot be imparted to another without comprehensive training and/or some ongoing experience within the university system. Just as educators would not deign to place an individual insufficiently trained in instructional practices, so too should university faculty be wary of the practice of placing untrained educators into faculty positions regardless of their years of teaching experience at a younger grade level. The literature as has been noted sees greater efficacy and mutuality when the course planning and teaching duties are collaboratively performed as the theoretical knowledge from the faculty member and the fresh-from-the-classroom resident teacher's experiences congeal for the enhanced pr-serviced teacher course experience. Learning between collaborators is also perceived to be enhanced through this exchange. The use of the outgoing resident teacher to serve as primary trainer for the incoming resident teacher, though a reasonable approach creates difficulties. Much information that could have come directly from the faculty member is lost to the incoming resident teacher due to the second-hand communication from another resident teacher. This has the potential for classroom strife with pre-service teachers or lack of program coordination or cohesion within the department. The research literature highly recommends that the faculty member and resident teacher co-plan and co-teach the courses. The intent being that it becomes the perfect blend of current theory and current classroom practice drawn from immediate real world experiences (Cole, 1995; Daane & Waltman, 1999; Gardner, 1972; Heikkinen, McDevitt, & Stone, 1992; Lemma, Ferrara, & Leone, 1998).

Beyond Renewal and Enhancement: A Vanguard TiR Construct

The formal and informal literature abounds with rhetoric espousing feelings of renewal and rejuvenation experienced by the resident teachers. Goals of such residences need to aspire to

something greater than feelings of renewal and enhancement. The goal of a teacher-in-resident program should aspire to improve the teaching scholarship among the classroom teacher and the education faculty member in a quantitatively verifiable manner. When the reformation call first arose for the establishment of partnerships and resident teachers in the 1980s, one concept was for university faculty to collaborate with their K – 12 classroom counterparts to co-teach education and methodology courses to pre-service teachers. It was imagined that through this collaborative team, the resident teacher would gain updated theoretical knowledge and the faculty member would gain greater insight into the daily needs and concerns of classroom teachers as well as a model for incorporating theory into classroom practice. The scholarly dialogue that would ensue in the mutual exchange would enhance the teaching practices of both individuals initiating a reformation that would continually renew itself with each new resident's term. These valid arguments were later verified through case studies and qualitative findings reported in the research literature. Of course, as was also noted from the research literature, as funding ceased so did the residencies, for the most part. The reformation was quelled, though perhaps not due to lack of funding, but due to a lack of shift in priorities at both the university and school district levels. In order for the reform to continue, both parties need to acknowledge that the teacher-in-residence program is sound practice with mutual benefits that ultimately provide all students with a better education. Only through a re-prioritization process involving programs and budgets would this sound practice continue as a long term investment supporting the ongoing improvement of teaching scholarship among all educators.

Originally the idea of a scholarship of teaching was suggested by Boyer (1990) to enhance university level instruction overall in a domain specific manner. By embodying the scholarship of teaching in a Teacher-in-Residence program within the greater context of education partnerships between school districts and universities, ongoing renewal at the university level and professionalization of teaching at the middle school level would occur. The very nature of the relationship between the

partnered university faculty member and the teacher-in-residence characterizes the elucidations of Shulman (1998). The relationship of these partners does not necessarily end with the residency as once teaching is recognized as a form of scholarship (by individuals and their supporting educational institutions) a likelihood exists that increased formal inquiry through perhaps school-based research would ensue leading to a more critically reflective teaching staff at all levels of education. Developing teaching scholarship at the middle level would elevate professionalism while offering a variety of meaningful leadership opportunities to the former resident teachers. These opportunities could give rise to authentic research that would lead to viable solutions for school site-specific problems. All of this would be performed in the spirit of collaborative scholarship between the university and the middle schools. Such a scholarship of teaching would enable more research to be performed perhaps addressing issues more germane to the classroom teacher.

A vanguard construct that combines a teacher-in-resident program with teaching scholarship needs to be implemented and given priority for both partners involved. Such a construct would allow for one to two teachers per school (or school district) to be released from all classroom duties full time for approximately 18 months. Each teacher would have been designated by their colleagues, administrator and school board as a leader among teachers. Each would be paired with a carefully matched university senior faculty member who is assigned teaching and research duties in the teacher education program. Due to the amount of time needed to facilitate the teacher-in-resident relationship as well as to solidify the ongoing relationship with the partnered school district, the university faculty members involved would receive complete consideration of their service requirements. The duties of the resident teacher would include co-planning and co-teaching the middle level education courses as assigned to the faculty partner as well as serving on faculty committees to provide their insights and experiences toward improving the pre-service teacher program. The resident teacher would also be required to investigate any issues or problems pertinent to their school or district based upon

input from their colleagues, administrator and faculty partner. This investigation would entail a review of the research literature and a plan delineating a research project that would include involvement from teachers within the school district. And finally, time would be allocated for development and presentation of in-service training to the school district teachers as per their own expressed needs and/or coordinated with the research project. With this reciprocal arrangement, the faculty member through a theoretical lens views the research big picture while the resident teacher through an application lens views the research from a particular classroom angle.

This is where re-prioritizing agendas becomes paramount. The university needs to ascertain whether such an ongoing partnership and residency will meet their improvement plan for their particular middle level teacher education program as well as their goals for research and service.

Conclusions

Overall, the literature regarding the narrowly defined teacher-in-residence programs appears disparately anecdotal and unfocused in terms of its implications for true reform as has been advocated. Anecdotal records submitted by teacher residents which have been sporadically accumulating on each teacher-in-resident program's website and posted on the worldwide web do indeed highlight perspectives similar to those perspectives documented in the literature from qualitative studies involving methods such as interviews, surveys and case studies. However, little quantitative research data have been obtained. This Middle Level Teacher-in-Residence program coordinated by the university was a sound endeavor that provided opportunities of scholarship to the resident teachers. The positive outcomes of this effort must be credited to the strong and unique relationship forged by the resident teachers with their faculty mentors. The resident teachers provided the theory-into-practice linkages as were anticipated while also maintaining their own level of scholarship. Overall the resident teachers perceived that they took back to their classrooms a

renewed enthusiasm for teaching, and many creative, theory-based practices that are intended to assist all children in learning. These middle level educators came into their own personage through their varied experiences as a teacher-in-residence. Even though each had distinctive reasons for participating, and their own goals and agendas to achieve, they traversed a path that took them from being draped outwardly in the robes of university faculty to a distinguished teaching scholar who more fully understands the relationship between theory and classroom practice and who regularly engages in critical discourse regarding issues within their domain of a professional educator.

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Designing Advanced Degree Programs: The Elements of a Model Process

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At the start of the new millennium, teacher education for the middle grades is still an emerging enterprise. According to *Turning Points 2000*, the policies and standards of many professional organizations such as National Middle School Association (NMSA), the National Association for Secondary School Principals (NASSP), and the National Association of State Directors of Teacher Education and Certification (NASDTEC), strongly promote the special preparation of expert teachers for the middle grades. Nonetheless, the extent to which educators receive adequate preparation to teach middle level learners is still unacceptable. Although at least 42 states have provisions for teachers to obtain either middle grades licensure or endorsement, only 25 percent of middle grades teachers benefit from middle level preparation prior to beginning their careers, and access to middle grades preparation is still lacking for many educators (Jackson & Davis, 2000). With the advent of recent federal legislation that highlights the importance of highly qualified teachers for all learners (United States Department of Education, 2002), an increased focus on appropriate preparation programs for teachers of all grades, including those in the middle, seems likely.

As colleges and universities design and implement programs to prepare teachers for the middle grades, a need exists for research-based program elements to serve as guides. Published descriptions show that earlier middle level programs based their designs on existing NCATE standards and recommendations of learned societies such as NMSA (McEwin & Dickinson, 1995; Swaim & Stefanich, 1996). In the past decade, both NCATE (2000) and NMSA (2002) have significantly revised their standards, and the National Board for Professional Teaching

Standards has published new standards for assessment of accomplished practice (NBPTS, 1989). In addition, growing bodies of literature about collaborative school-university partnerships, professional development, pedagogical content knowledge, and teacher leadership in partnership settings add important dimensions for consideration by teacher preparation programs (e.g., Auton, Browne, & Futrell, 1998; Fullan, 2001; Goodlad, 1990; Lampert & Ball, 1999; Little, 1993; Shulman, 1999; Wilson & Berne, 1999). Both new and current programs to prepare middle level teachers must incorporate multiple sources of research within a coherent, standards-based design (Blackwell & Diez, 1998; Galluzzo, 1999).

In the creation of an advanced degreed program for middle grades teachers, four elements emerged as a model of design. During the 1990s, selected Richard W. Riley College of Education faculty members developed a master's program in middle level education. To guide program design, faculty relied upon existing literature in middle grades teacher preparation (e.g., McEwin & Dickinson, 1995; McEwin, Dickinson, Erb, & Scales, 1995; NMSA, 1995; Swaim & Stefanich, 1996). In addition to middle grades literature, four specific elements contributed to the model program design. First, faculty followed principles that promote collaboration among school and university partners to achieve simultaneous renewal of teacher preparation and P-12 schooling practices (Darling-Hammond, 1994; Goodlad, 1990, 1994; Levine, 1992). Second, responding to the publication of new standards, faculty organized multiple sources of benchmarks for the preparation of advanced degree candidates to achieve quality and coherence. Third, the theme of teacher leadership embedded within the College of Education's conceptual framework provided a distinctive focal point for all program activities (Winthrop University, 1997). Finally, the hiring of a faculty member in middle level education facilitated continuous collaborative redesign of the program.

Design Element One: Collaborative Design

The first element involves collaborative design by both school and university faculty. Initial program design began with a commitment to link development of a master's program in middle level education with key elements of school-university partnerships, including teacher leadership, collaborative inquiry, and simultaneous renewal of teacher preparation and P-12 schooling (Fullan, 2001; Goodlad, 1990). Establishing a broad base of commitment and support was a central goal (Cormier, Norton, & Vare, 1997). Using state funds from the Carnegie Foundation's Middle Level Project, grant recipients engaged partnership faculty from the Colleges of Education, Arts and Sciences, and Visual and Performing Arts, as well as local professional development schools in the study of middle level teaching and the design of an exemplary master's program. Collaborative involvement of a wide range of participants accomplished three crucial objectives: (1) to provide partnership faculty with professional development about current exemplary practices in middle level education and teacher preparation; (2) to foster ownership of the program within a large body of school-university faculty; and (3) to inform program design with elements from both scholarly research and practitioner expertise.

Several activities occurred over a span of three academic years from 1994-1997. First, partnership faculty participated in a series of discussions informed by readings from NMSA publications and other sources of middle level literature (Million & Vare, 1994). Second, university faculty held a seminar with teachers from two middle level professional development schools to design a degree program based on exemplary practices in middle level education and simultaneous renewal. Then, grant recipients developed sample syllabi based on the most current standards at that time (NMSA, 1995), exemplary practices (e.g., McEwin & Dickinson, 1995; Swaim & Stefanich, 1996), and practitioner recommendations. Third, grant recipients held a series of focus group discussions and implemented subsequent activities suggested by focus group participants (Cormier, Norton, & Vare,

1997). University faculty from three colleges at Winthrop University reviewed sample program syllabi, recommended courses for content preparation, and suggested the redesign of certain content area studies. The final product was a collaboratively designed program supported by multiple constituencies across the university.

Consequently, the current plan for the master's degree features a coherent, integrated program of study (see Table 1). Additionally, alignment with standards and competencies of multiple agencies provides a means to achieve program coherence, a link to the theme of teacher leadership, and a framework for on-going program redesign.

Table 1

Program of Study for Master's Degree in Middle Level Education Richard W. Riley College of Education, Winthrop University, Rock Hill, South Carolina

Professional Educational Core (9 hours)

- EDUC 640 Educational Research, Design, and Analysis
- EDUC 670 Schooling in American Society
- EDUC 681 Advanced Educational Psychology

Middle Level Education Core (15 hours)

- EDCI 600 Philosophy, Organization, and Curriculum of the Middle School
- EDCI 610 Early Adolescence in Contemporary Society
- EDCI 620 Introduction to Content Literacy in Middle Schools
- EDCI 630 Pedagogy and Assessment in the Middle School
- EDCI 690 Capstone and Advanced Field Experiences in the Middle School

Disciplinary Focus (12-15 hours)

- Elective Courses in Discipline

Examples:

Adolescent Literature

Teaching Economics in Grades 6-12

Physical Science Content Standards for Middle School Teachers

Problem Solving for Middle School Teachers

Design Element Two: Standards-based Alignment

The second design element incorporates alignment of multiple sources of standards, competencies, and assessments. Faculty recognized the existence of new standards and the need to organize multiple standards to achieve quality and coherence. Of foremost importance, in 2002 the NMSA revised standards for advanced programs to include performance outcomes. In addition, NCATE encouraged teacher preparation programs to consult National Board standards for accomplished practitioners and to use them to envision a new configuration of master's education for teachers (Blackwell & Diez, 1998). Although there is no one best way to achieve consistency among sets of standards, one method recommends alignment across multiple domains such as those for unit accreditation, content and professional knowledge, student learning, and accomplished practice (Galluzzo, 1999). In the Winthrop program, a major task involved the selection of a means to organize multiple competencies and standards.

Conceptual Framework

To achieve program coherence, faculty in the College of Education began with the Conceptual Framework for Advanced Education Programs, *Educator as Leader*, and aligned the standards of NMSA, NCATE, and NBPTS with performance-based assessments and learning outcomes of the framework for advanced programs. The organizing concepts of the Conceptual Framework for Advanced Education Programs are Leadership, Stewardship, and Scholarship (Winthrop University College of Education, 1997). Learning outcomes under each organizing concept are cross-referenced to performance assessments, NMSA/NCATE standards, and core propositions of the NBPTS. See Table 2 for an organizational matrix depicting the standards alignment. The matrix shows how a college or university's conceptual framework can provide a distinctive focal point for all program activities and performance assessments.

Table 2

Alignment of Performance-based Assessments, Standards, and Conceptual Framework

Winthrop University Advanced Conceptual Framework: ***The Advanced Educational Leader***	*Performance-Based Assessments*	*NMSA/NCATE Guidelines*	*NBPTS Core Propositions*
Advocates for the development of individuals to their full potential (Leadership).	Interdisciplinary unit Integrated Curriculum and Technology project Theory into practice journals	Standard 1: Middle level masters candidates understand and analyze the major concepts, principles, theories, and research related to young adolescent development, and they apply that knowledge in their practice.	Teachers are committed to students and their learning.
Enhances specific knowledge in content areas (Scholarship). Develops school curricula and/or educational interventions based on contemporary theories of learning and development, applicable technology, collaborative discourse, and	Interdisciplinary unit Integrated Curriculum and Technology project Theory into practice journals	Standard 4: Middle level masters candidates understand and analyze the major concepts, principles, theories, standards, and research, related to their teaching fields(s), and they apply that knowledge in their practice. Standard 5: Middle level masters candidates understand and analyze the major concepts, principles, theories, and research related to effective middle level instruction and assessment, and they apply a variety of effective strategies to meet the varying abilities, interests,	Teachers know the subjects they teach and how to teach those subjects to students.

evaluation (Stewardship).		and learning styles of all young adolescents.	
Demonstrates the ability to construct a supportive, well-managed, motivational learning environment that promotes equal access to education for people from diverse cultural backgrounds (Stewardship).	Interdisciplinary unit Videotaping and reflection Theory into practice journals	Standard 5: Middle level masters candidates understand and analyze the major concepts, principles, theories, and research related to effective middle level instruction and assessment, and they apply a variety of effective strategies to meet the varying abilities, interests, and learning styles of all young adolescents.	Teachers are responsible for managing and monitoring student learning.
Evaluates oneself as an educational leader through knowledge, reflection, and professional discourse (Leadership). Appreciates the value of using research to inform practice (Scholarship). Evaluates, clarifies, and refines personal philosophy of professional practice (Stewardship).	Videotaping and reflection Theory into practice journals Personal philosophy (revised each semester)	Standard 7: Middle level masters candidates understand and analyze the major concepts, principles, theories, and research related to their professional roles in middle level education, and they apply that knowledge in their practice.	Teachers think systematically about their practice and learn from experience.
Applies	Interdisciplinary	Standard 6: Middle level	Teachers are

current theories to enhance individual learning of others and promote professional development (Leadership). Models life-long learning (Scholarship). Cares for and relates to students, families, and the larger learning community (Stewardship).	unit. School evaluation. Action research project.	masters candidates understand and analyze the major concepts, principles, theories, and research related to working collaboratively with family and community members, and they provide leadership in helping all stakeholders offer high quality learning opportunities for all young adolescents. Standard 7: Middle level masters candidates understand and analyze the major concepts, principles, theories, and research related to their professional roles in middle level education, and they apply that knowledge in their practice.	members of learning communities.

Performance-based Assessments

As illustrated in Table 2, performance-based assessments provide an outcome-based anchor for all competencies and standards. The revised NMSA (2002) standards include a significant focus on performance outcomes to document attainment of competence. In 2000, the College of Education employed a middle level education faculty member to teach and coordinate modifications to the program. An immediate priority was the modification of existing middle level course syllabi to include performance-based assessments featuring a strong focus on research, application-based assignments, and authentic tasks that would impact participants' classrooms and schools. These performance assessments coalesced with key standards from the NMSA/NCATE guidelines and concepts from the Conceptual Framework.

Content-area Standards

An essential component is the collaboration of faculty members from the College of Education with colleagues in the College of Arts and Sciences to align program elements with standards of learned societies in the content areas. The vision of disciplinary mastery set forth by each learned society is quite ambitious and requires that teachers develop a deep understanding of the content for which they are responsible (e.g., NCTM, 2000). Of equal importance is the expectation that teachers must demonstrate pedagogical content knowledge that helps their students to understand disciplinary content as well (Shulman, 1999). Unfortunately, the standards contain a vision of student learning and development that some teachers have experienced only minimally themselves (Little, 1993).

The mathematics content focus in Winthrop's middle level program serves as a pilot collaboration for other content areas. Within the context of the mathematics courses designed specifically for the middle level program, teachers explore the elements of a classroom that approaches the ideal set forth in national standards and meets the content demands of their own state's curriculum (NCTM, 2000). Instructors model best practices in content and pedagogy such as problem solving, questioning, inquiry, and discussion (Shulman; 1999; Waxman & Walberg, 1991; Wood, 1999). Teachers have opportunities to engage in collaborative problem solving, to experience and teach model lessons, to explore the use of discourse in mathematics classrooms, and to investigate appropriate use of technology to support learning. The teachers engaged in tasks that could then be used for many instructional purposes such as introducing new material, assessing understanding, or challenging students.

Design Element Three: Focus on Teacher Leadership

A third design element embodies a thematic focus on teacher leadership, an aspect that gives the middle level master's program at Winthrop a distinctiveness linked to the conceptual

framework. The role of the teacher is changing through the reform of curriculum standards, introduction of more stringent licensure programs, research on effective teaching and learning, and increased emphasis on student assessment. Teachers must become career-long learners, who are skilled at evaluating various instructional strategies, curricular movements, and changing needs of students. All teachers must "engage in learning to reason and solve pedagogical problems, to make connections across a rich web of topics and experiences, and to communicate pedagogical ideas" (Lampert & Ball, 1999, p. 40). With this change in expectations of teachers comes a new sense of professionalism; thus, all teachers can benefit from an examination and development of their leadership skills.

Loucks-Horsley and Matsumoto (1999) identify the development of leadership skills as an essential part of effective professional learning. In middle schools there are established leadership roles for teachers among teams, departments, and school-based committees (Jackson & Davis, 2000). Moreover, teachers have opportunities to assume multiple leadership roles as they act as mentors for other teachers, are engaged in professional discourse with other teachers, and share curricular goals and expectations for student learning with parents and community members (Collay, Dunlap, Enloe, & Gagnon, 1998; Little, 1993; NCTM, 2000; Wilson, & Berne, 1999). In the middle level education master's program, the concept of the teacher as a change agent characterizes the type of leadership that the program develops. To build greater change capacity in individuals, Fullan (1993) notes four key elements: personal vision-building, inquiry, mastery, and collaboration, each of which is built into the program.

Design Element Four: On-going Redesign

The fourth design element comprises a type of continuous formative evaluation accomplished through on-going redesign. Implementation of activities to accomplish on-going redesign in the middle level master's program at Winthrop began in 2000 with the enrollment of the first cohort. In addition, program faculty

initiated activities to incorporate National Board standards for accomplished practitioners into the middle level master's program (Blackburn, Dewalt, & Vare, 2003) selecting "authentic redesign" as the preferable approach (Blackwell & Diez, 1999). Authentic redesign is a benchmarking approach in which NBPTS and board certified teachers' suggestions inform revision of a master's program.

There are several key components to a model of ongoing program redesign. First, each cohort of students provides continual feedback through mid-semester and end-of-course evaluations, focus group interviews, and performance assessments as course artifacts. As faculty members consider program changes, they solicit input from current students and program graduates. Next, faculty members use a series of questions to consider and evaluate potential changes. For every adaptation, such as a specific class assignment or change in program admission requirements, the faculty considers answers to the following questions: What is the end result? How does the change impact student achievement (in candidates' classrooms) and teacher leadership? And, what is the evidence that can show what we have accomplished? Finally, to track changes and ensure alignment with current standards, the program coordinator collects and analyzes information gathered from focus groups, written reflections from students, interviews, and faculty discussions.

Conclusion

The four elements of program design used to develop and refine the graduate program are applicable to any advanced degree program. Collaboration among school and university partners provided a strong foundation that facilitated revisions to the program when new standards were released. This continues to be true as expectations change due to legislative mandates and as suggestions emerge from educational research and ongoing student feedback. The initial collaborative relationships provide a framework for assisting teachers to meet new expectations such as those in the NCLB legislation. For example, faculty in the

Mathematics Department and the College of Education, with input from several local school districts, developed a set of courses for the graduate program that will provide in-depth content knowledge, as well as follow-up coaching and reflective activities that focus on the implementation of new content knowledge. Teachers will be equipped to pass a standardized content test, which meets the current federal requirements for qualification. The success of the courses rests on the collaboration of faculty with content knowledge and pedagogical expertise.

Next, by using the college's Advanced Conceptual Framework as a guide for organizing sets of national standards, faculty built a foundational matrix for program curriculum. For colleges and universities, a conceptual framework embodies the concepts, skills, and dispositions deemed essential for all degree candidates in various programs. Because the framework represents each institution's core values, it necessarily anchors all other standards and provides a common link among multiple sets of outcomes. Such was the case with incorporation of NBPTS into program curriculum. NBPTS core propositions aligned easily with aspects of the NMSA/NCATE guidelines and outcomes of the college's conceptual framework for advanced programs. Also, content areas could more readily complete an alignment of disciplinary standards with aspects of the multiple standards matrix. Given the increase in the number of standards programs are expected to consider, it is crucial to have an organizing foundation.

Third, focusing on a theme of teacher leadership, particularly the notion of teachers as agents of change in their classrooms and schools has proved to be beneficial. Too often, educators believe they have little power to influence policy or legislation that affects schools. Programs that encourage teachers and administrators to be agents of change can make a difference. As one graduate student noted "I've come to realize that being a leader doesn't mean being in charge, it means that I speak up when I know something and share my knowledge and expertise whenever I can…we need to stop complaining and start looking for the good in the laws and use that to help improve our schools."

This attitude allows graduate candidates to be change agents in their classrooms, schools, communities, and profession. In order to preserve the future of middle level education, we must continually strive to prepare new leaders who appreciate the history and struggles of middle level education, and who are enthusiastic about taking a positive leadership role for the future.

Finally, continuous collaborative redesign has enabled both faculty and candidates to respond immediately to changes in standards, policies, and students' needs. The redesign process is never a one-time event. It is important to have several means of data collection to guide the ongoing changes, such as portfolios of reflections and evidence of mastery of national standards, interviews of current students and recent graduates, and surveys of area administrators who employ program participants. Student involvement in the program design is evident, and is imperative for authentic program redesign.

As colleges and universities wrestle with the competing demands of state and federal requirements, multiple content and program standards, and the needs of educators, it is critical to have a coherent model to follow for program redesign. The use of collaboration among stakeholders, an organizing framework, a focus on teacher leadership, and ongoing redesign model, allows colleges and universities to balance the varying needs and expectations of the new millennium.

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Multiple Intelligences and Middle Level Leadership

Winston Pickett
Diane Boothe
State University of West Georgia

Quality leadership is a crucial component contributing to the success of middle schools. Professors of middle level education need to realize the value of quality leadership and teach these skills in the university classroom. The traditional and standard aspects of leadership are not adequate to meet the unique needs of the middle school setting. Fast emerging brain-based theories of learning incorporated with quality leadership are capable of meeting the demands of a changing middle level philosophy and tackling important and timely issues.

The multiple intelligence theory described by Howard Gardner (1983) in his publication, *Frames of Mind,* embodies the philosophy required for a process impacting quality leadership at the middle level. The multiple intelligences identified by Gardner are as follows: verbal, math, spatial, kinesthetic, musical, intrapersonal, interpersonal, and naturalist.

Melton and Pickett have demonstrated the success of incorporating these intelligences in the discipline by pointing out that brain-based learning theory challenges many of the basic assumptions of traditional teaching and leading. Thus, a multiple intelligence approach to leading offers a frame of reference allowing for selection of a vast array of leadership techniques that when applied to the middle school setting focus on the unique needs of middle level education.

Professors of middle level education and administration will enhance classroom instruction by incorporating these components into their teaching. In this way, middle level teachers and leaders will improve communication and better understand one another, resulting in an improved educational process for all stakeholders.

Multiple Intelligences and Middle Level Leadership Strategies

Gardner's theory of multiple intelligence is not limited to academic classroom skills, but has the capability for broader influence and approaches to the challenges associated with leadership in the middle school setting. As leadership roles change, it is crucial to consider the variety of traditional and non-traditional learning styles and approaches that impact middle level education. Leadership strategies that are multidimensional and address unique cognitive styles and abilities are valuable for the changing culture of middle schools. Professors of middle level education should incorporate these approaches in the content of their university coursework and "practice what they preach" in terms of their interaction with students, inspiring discussion, and implementation of their own teaching and learning processes.

Smith and Andrews (1989) discuss four key qualities of instructional leaders: resource provider, instructional resource, communicator, and visible presence. Assuming that strong instructional leaders at the middle school level spend a large percentage of their time on educational program improvement, the focus and effective application of multiple intelligence theory will be conducive to aligning their tasks and priorities in order to accomplish their goals.

Transformation for Middle Level Leaders

Leadership in the middle school manifests itself in a variety of roles. Professors of middle level university courses need to guide students through an examination of specific leadership roles in an effort to effectively and meaningfully understand the key facets of each one. Middle school principals and assistant principals are expected to fulfill traditional roles and meet the objectives of their job descriptions. However, transformational leadership includes far more than "managing" a middle school, and administrators have the opportunity to incorporate multiple intelligence theory and understanding in order to create and implement programs that will build strong relationships between

students, teachers, parents, administrators, and community members. By utilizing multiple intelligence theory and a variety of conceptual lenses to transform leadership, administrators will be able to align their strategies with practices designed to transform educational processes.

In addition to administrative roles, team leaders and classroom teachers should also be well prepared to transform educational processes and provide leadership for excellence in middle schools. Collaborative leadership is essential in planning and directing curriculum and instructional programs that meet the multifaceted needs of students. By incorporating multiple intelligence theory and creating a reflective framework that connects learning with instructional leadership, and directly relates to improvement in student learning, optimal educational experiences will take place in the middle school.

Multiple Intelligence and Collaboration

Because middle level students learn in numerous ways and at differential paces, learning approaches compatible with varied learning preferences and theories of multiple intelligences will realize positive results. Educational leaders, including administrators, team leaders, and classroom teachers have the opportunity to design meaningful learning experiences that will incorporate collaborative instructional practices and effectively develop students' confidence and abilities. Carpenter (2003) points out that collaborative learning "further exploits the multiform nature of intelligence." Collaboration should not only be limited to instructional practices for middle level students, but must strive as a common denominator throughout the leadership process in the middle school setting. In order to develop teacher leaders, collaboration between teachers and administrators is crucial for success. Theories of multiple intelligence and a variation in leadership styles are directly related. By linking collaboration to this process, connections can be made and leadership processes aligned to practices.

Creativity in Middle Level Leadership

Middle level leaders are called upon daily to address multidimensional tasks from classroom teaching and learning to complex and sometimes overwhelming challenges. Creativity manifests itself at different levels in all individuals, and a certain degree of creativity is essential for success in all walks of life. Creative problem-solving utilizing theories of multiple intelligence will enhance leadership responsibilities, yet it is no secret that highly creative students or leaders can be perceived as a challenge to those around them because they tend to view the world through conceptual lenses not always common to less creative individuals. Creativity coupled with critical thinking will develop facilitative attitudes and accomplishments. Highly creative people have a different concept of time, space, and priorities and tend to focus intensely on the creative aspect of the moment. On the other hand, Gaffney (2003) emphasizes the strengths of "unleashing creative competence and utilizing the arts in education to transform a student's life and the ability to learn."

Creativity also has value in leadership and organization. Gaffney further points out that creativity has a valuable role when it comes to leadership training. She notes that leaders tend to be very bright, often anticipate what will happen in order to plan a response, and also to control the situation. By encouraging creativity and analyzing learning styles, group dynamics directly related to human resource issues are reflected and compared to the ways an artist creates, and this art form often comes from individual interpretation (Gaffney, 2003).

Leadership and Cultural Diversity

An increasing number of middle school leaders are being faced with the challenges and opportunities associated with changing populations of students, increased cultural diversity, and a growing number of Limited English Proficient students. Educational leaders need to be prepared for these changes and do all they can to welcome the opportunity to strengthen an

appreciation for cultural diversity. Confident communication with students, faculty, and community will strengthen relationships and aid in the incorporation of effective educational practices to meet student needs. Because culturally diverse middle level learners come from a variety of socioeconomic levels and some may have limited educational experiences in their native country, getting to know individual students and determining learning styles that work best for each one of them is tantamount to success. Multiple intelligence theory coupled with cultural proficiency will have tremendous impact on student success. Culturally proficient leadership includes a positive approach for addressing the needs of all students within the middle school setting, welcoming new Americans, and meeting the instructional needs of Second Language Learners.

Seplocha and Strasser emphasize building an understanding of multicultural perspectives and diversity issues by incorporating strategies that support Gardener's theories associated with Interpersonal and Intrapersonal Intelligences. Because people who operate well in the Interpersonal Intelligence are able to understand others well, they have the ability to mediate conflicts and understand and recognize stereotypes and prejudice (Seplocha and Strasser, 2003). This ability also relates to the leadership styles discussed previously because Intrapersonal Intelligence is also a dynamic component in cooperative learning strategies and providing feedback. Direct linkages are clearly evident among multiple intelligences and a variety of leadership skills in addition to working with diverse populations.

Multiple Intelligences and Assessment of Middle School Programs

Assuming that challenge brings clarity, assessment of middle level programs should result in a practical approach to program evaluation. Succinctly stated criteria that is summative rather than formative would be the ideal for middle level leaders. Aligning the curriculum with national standards and supporting authentic learning strategies with appropriate evaluative tools of

learner achievement specifically designed for this age group will produce positive results.

The current paradigm shift in education is toward an environment with an emphasis on assessment, often not taking into account growth and change that is taking place within middle schools. Often policies, procedures, and requirements are not consistent and middle level leaders are faced with a set of guidelines that are often subjective. Professors of middle level education are provided with a rich opportunity to open the doors for a discussion among educators regarding the lack of clarity, organization, or completeness of expectations in the middle school. The success of a middle school or programs within that school cannot always be measured by standardized criterion or norm-referenced tests. Middle level educators in university classrooms can attempt to bring purpose and meaning to these challenges as they wrestle with the issues facing middle level educators. Experiential sharing and dialog that is focused and energized will aid in recognition of the balance that must be created. If Gardner's multiple intelligence theory is taken into account along with the recognition that the dynamics of the population of middle level learners is highly complex and diverse, then standard assessment procedures compose only one small facet of the data contributing to assessment and performance of middle schools. Comprehensive school improvement and reform can only occur when middle level leaders and middle school programs are assessed on differentiated performance tasks.

Conclusion

The incorporation of multiple intelligences and innovative measures in middle level leadership has the potential to identify multiple talents in a variety of leadership areas. By strengthening and developing these talents, professors of middle level education have the opportunity to serve as resources challenging educational leaders to excel in their area of expertise and positively impact the lives of middle level students and educators. We need to use every strategy that we can to assure that we continue the basic

philosophies that have led to our success, rather than abandoning these goals due to pressures associated with testing, No Child Left Behind Legislation, and other strategies that have failed in the past. Kohn (2004) expands on these concerns and cautions against dismantling public schools and leaving many children behind by undoing our own process rather than building upon it. Middle level professors must stimulate the exploration of ideas and encourage the development of essential middle level leadership skills that would otherwise be unrecognized and untapped.

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Help! I'm Teaching Middle School Science

By C. Jill Swango and Sally Boles Seward

Reviewed By
Stephen Marlette
Southern Illinois University Edwardsville

It is well documented that beginning science teachers face an enormous set of challenges during their first years. The authors created this text with the new middle level science teacher in mind. However, because the text addresses such a wide variety of topics and includes links, websites, and other information resources, its usefulness extends to any pre-service teacher or in-service teacher with a middle level science teaching assignment. For example, the chapter entitled "first day" provides a variety of ideas, games and icebreakers. The chapter identified as "best practices" reviews the developmental needs of young adolescents and introduces several teaching and learning strategies. Other chapters relate to lab safety, cooperative learning, writing for science, adapting labs, demonstrations, metric measurement, classroom management, community resources, teaming and substitute teachers. The appendix contains a little over twenty pages of information useful to new teachers in general and especially new science teachers such as sample field trip permission slips, metric conversions, and even information on how to use red cabbage juice for an acid/base indicator.

Each chapter introduces several key ideas that are a mix of the author's personal advice and ideas gleaned from educational literature. Veteran science educators may find that coverage of some of the concepts and ideas lack depth. However, the new teacher, the target audience, for which this publication is aimed may really benefit from the practical insights from the accomplished authors of this book. For example, the discussion on cooperative learning does not address the basic elements espoused by Johnson and Johnson as being critical for success; however, it does provide a practical list of advantages, disadvantages of

cooperative learning and ideas to help the teacher make decisions about the use of cooperative learning and grouping of students. In this sense, the book is more of a primer of hands on strategies and selected topics rather than an in depth discussion. Important resources at the end of each chapter includes references, website links so readers can search for additional information, and a direct linkage of the chapter topic to the National Science Education Standards.

In addition, SciLinks have been included within the body of most chapters of the text. Familiarizing the novice science teacher with SciLinks in the context of specific content will help them integrate technology and a broader range of current information into their instruction. SciLinks is a site that was created and is maintained by the National Science Teachers Association (NSTA). SciLinked texts allow users to go to the SciLink website (www.scilinks.org), type in the keyword code that is near the idea or concept within the text, and obtain an annotated listing of relevant web links. For example, the topic: Science as inquiry has the code HMS13. Each link that is listed from a search has been reviewed by a team of science educators. This provides educators using these resources with an increased level of confidence in the web resources.

This book would be a nice addition to the library of any teacher looking for information and ideas related to middle level science teaching, but is especially useful for the novice teacher or teacher teams who are integrating science into their interdisciplinary teams or thematic units.

Help! I'm Teaching Middle School Science
By C. Jill Swango & Sally Boles Seward, 2003
NSTA Press, Arlington, Virginia
ISBN: 0-87355-225-3
Paperback - 133 pages

Dramatic Literacy: Using Drama and Literature to Teach Middle-Level Content

By J. Lea Smith and J. Daniel Herring

Reviewed By
Stephanie L. McAndrews
Southern Illinois University Edwardsville

This engaging text offers practical strategies for integrating the dramatization of children's literature into content studies at the middle level. Dramatization provides students with a method of connecting content with their lives through the interpretation of the characters, plot and setting. The authors combined their expertise as an associate professor in the department of teaching and learning, and an art director for professional theater for young children, in order to demonstrate how drama can enhance student's understanding of content through constructing their own meanings in their performances.

Chapter one describes the varied roles that drama can play in the classroom. Integrating drama into instruction is a means of supporting middle level students' needs as they struggle with self-identity, explore social interactions, and extend their creative and critical thinking skills. Drama is a mode of constructing knowledge through active learning during role playing and problem solving. Both nonverbal and verbal language abilities are developed and refined as students actively engage in dialogue; adapt language style, voice and mannerisms; learn multiple perspectives through switching roles; integrate reading, writing and acting; and express feelings in a safe, pretend environment. Drama nurtures the student's sense of individuality and helps develop social skills. Most importantly, drama provides an additional mode of presenting and responding to their learning, that many students find highly motivating, and therefore an effective means of enhancing cognitive processing and content knowledge.

Chapter two illustrates the essential elements of drama and role of the teacher in drawing students into the drama. When

creating dramatic action the teacher selects the materials such as books, poems, films, articles or photographs that a story can be developed around. The students will help develop the plot elements such as who are the characters, what is the conflict and where is the place or setting. The drama then adds action to the content to bring it to life. The teacher facilitates student participation within the dramatic action by either side coaching or taking on a role. Afterwards the teacher guides the students to an understanding of the drama created by facilitating an evaluation discussion.

Chapter three demonstrates how teachers can create an instructional environment that bridges what the students know with what they want to know through drama. Two different methodologies for structuring classroom drama are explained. In the linear approach, which is traditional in the U. S., the dramatic activities are mostly planned step-by-step by the teacher prior to involving the students. While the other is a more holistic British approach, in which students are placed in a role without instruction in dramatic skills, and the framework is more flexible.

Chapter four describes the value of dramatizing literature and the specific types of literature that can be used to develop dramatic episodes. The heart of the text, however, lies in chapters five through nine where specific examples are provided for using drama as part of language arts, social studies, science, math, and even second language learning instruction. The choice of quality literature in the examples is varied and quite appealing to most middle level students. The lessons are engaging, easy to follow and provide clear objectives. Each lesson is organized into six elements: the topic, issues of exploration, focusing questions/objectives, planning, playing, and evaluation and follow-up of the drama and content. In order to integrate the writing process, dramatic writing mini lessons are also included. While a variety of lessons are described, suggestions are given for developing teacher's own lessons and dramatizations.

This resource not only provides the practical application of incorporating dramatic literacy in the classroom, it is based on sound theories of adolescent learning and teaching. *Dramatic*

Literacy is a welcome addition to the literature on engaging middle level students in learning. The use of this text could dramatically improve the literacy and content knowledge of middle level students in a highly motivational manner.

Dramatic Literacy: Using Drama and Literature to Teach Middle-Level Content
By J. Lea Smith and J. Daniel Herring
Heinemann, 2001.
ISBN: 0-325-00050-6
Paperback - 130 pages

Teachers' Problem Solving: A Casebook of Award-Winning Teaching Cases

Edited by James M. Cooper (1995) by Allyn and Bacon

Reviewed By
Nancy Ruppert, UNCA

Through a series of nine vignettes, Cooper provides readers with evocative classroom challenges, dilemmas, and issues that middle level teachers face. The book is organized by providing first the actual case or set of events. Each vignette is followed by a summary of key points or critical issues. In addition, the editors provide questions to ponder and address that are useful both for individual student reflection and for rich class discussions. To extend the learning possibilities, related suggested readings are included with each chapter.

Each scenario begins with an overview of the situation and a general summary of the key issues. Each of the vignettes addresses different issues that new teachers face. "White Teacher Black School", for example, describes a scenario in which a white teacher finds herself uncomfortable in a different culture; "The Advisor-Advisee Problem" looks at the relationship that teachers try to create with their students and illustrates how stereotypes and misunderstandings can create tension for students, administrators, and the teachers involved; "Brad Hill the One and Only" looks at a teachers encounter with a child who has severe emotional problems; "I Don't Know. I Just Don't Think You Can Be a Teacher" suggests that there may be circumstances that teachers find themselves in that engender self examination and self doubt; "Read My Lips - No Sign Language in Speech Class" gives a teacher's response to a deaf student who wants to participate in a speech class and how she handled it and the various other ways she could have responded; "May Antini: Teacher, Counselor, or Prosecutor" is a story of how a teacher learns information about a student. It begins by showing how unsure she is about the best ways to be an effective teacher for this student. Case follows the

teacher as she pursues sources and resources to learn about and understand the student, her behavior, and her learning needs; "The Tested Teacher" is a vignette about how a teacher responds when tests are stolen from her classroom and how she came to understand the underlying reasons for this kind of academic theft; "New Teacher on the Block" looks at how and why children can test new teachers' authority; and "The Rise and Fall of Bruno Reilly..." looks at the challenges and underlying meaning of politics and bureaucracy that are a part of any school system. At the end of each scenario, there are questions to ponder and address in leading class discussions. In addition, suggested readings are included with each chapter.

As a professor of education, I find this book useful in my middle school curriculum course as part of on-line discussions. Using an online discussion framework, the students then responds to one other student's response. Members of the class choose chapters to summarize and they lead a class discussion on the topic chosen.

Cooper has given professors of middle level educators a gem that illustrates very real and poignant classroom experiences that provoke thoughtful and reflective classroom discussions.

Teachers' Problem Solving: A Casebook of Award-Winning Teaching Cases
Edited by James M. Cooper
Allyn and Bacon, 1995
ISBN: 0205152031
Paperback - 128 pages

Constructivist Teaching Strategies for Diverse Middle-Level Classrooms

Reviewed By
Tom Lo Guidice
University of Wisconsin-Platteville

The text is designed for prospective middle-level teachers and for in-service teachers to improve their teaching skills. The three themes of the test are multiculturalism, teaching and constructivism. The themes are played out in the text under traditional sections such as planning, assessment, providing for individual differences, teaching strategies, and classroom motivation and discipline. Teaching in a multicultural setting receives a separate chapter but the other two themes are integrated.

The promotional material on the text promotes several features that are following through in the text. The features are as follows:

- Each chapter opens with a graphic organizer
- Each chapter includes a "real life' case study
- Exercise boxes encourage the reader to be a "decision maker"
- Reflection boxes encourage the reader to relate the content to their experiences
- Teachers of the Year provide practical tips
- Each chapter has a "recap of major ideas", summary and list of activities as well as references

As an introductory text for teachers the text has several strengths. The organization will appeal to traditional methods professors. The contents are traditional, the links to teacher preparation standards are easy to align and the features noted above have positive appeal. The writing is straight forward and using the table of contents, and the name and subject indices are very workable.

Professors who teach middle school preparation in an integrative manner will find the text limited to use as a resource. They will find little help for students in understanding the integrative approach. Furthermore, there is little available in the text to help the reader understand the nature of young adolescents and middle school organization. For example, teaming as a topic has three indicated locations and most of the teaming information is in the form of a case study. In contrast topics such as Bloom's taxonomy and testing receive considerable attention.

The fairest critique, of course, should focus on how well the text addresses the three themes promoted by the author and publisher as the foundation of the text.

Proactive Approach. The proactive approach means the reader acts as a decision maker to make decisions about student learning. The concept of proactive decision maker, vignettes, classroom situations, and anticipated situations are all included. The text works. The approach is realized.

Multiculturalism. As previously noted multiculturalism receives a separate chapter. There is also additional material on students in poverty, gifted and talented and underachievers. Much of the chapter on providing for individual differences compliments the multicultural themes. Multiculturalism is played out in terms of traditional considerations such as diverse classrooms as an opportunity and selecting ethnic materials. Professors and teachers seeking materials on young adolescent developmental tasks such as identity and social efficacy will be displeased. Those looking for social justice critiques or multicultural education as reconstruction will be disappointed.

Constructivism Given the title of the text the reader would assume that the primary theme of the text would be on constructivism. The title is to a considerable extent misleading. The subject index makes less than a dozen

references to constructivism and constructivist teachers. The first chapter treatment does include sections that include a definition, background, philosophical and psychological beliefs, and motivation theory, views of the natures and origination of knowledge and the role of constructivist teachers. There are also five well-done tables that summarize the concept. However, the theme is not followed through throughout the text in a way that is satisfying or lives up to reasonable expectations.

Constructivist Teaching Strategies for Diverse Middle-Level Classrooms
By Kenneth Henson
Allyn and Bacon, 2003
ISBN: 0-205-39181-8
Paperback - 432 pages

CONSTITUTION AND BYLAWS (April 15, 1997)
National Association of Professors of Middle Level Education

ARTICLE 1 NAME

The name of the Association shall be the National Association of Professors of Middle Level Education, Incorporated.

ARTICLE II PURPOSE

The purposes of the Association are to:

A. Provide a professional network to enhance the exchange of information and ideas, as well as encourage the discussion of topics related to the preparation of middle level educators.

B. Contribute to the development of an expanded middle level research base, and provide additional means for sharing and disseminating current research and ideas among those interested in middle level education.

C. Serve actively as advocates for the middle school movement, especially in terms of promoting middle level concepts among various publics commonly dealt with in the preparation of middle level educators.

D. Share in advocacy for the middle school movement by supporting the stated purposes and goals of the National Middle School Association.

ARTICLE III MEMBERS

Section 1

Membership in this Association shall be open to anyone interested in middle level education and the preparation of middle level educators.

Section 2

Under “umbrella” requirements set for affiliates by the National Middle School Association, members of the Association are also encouraged to hold membership in NMSA.

Section 3

The membership fee shall be paid annually. The term of membership shall be for one calendar year.

ARTICLE IV OFFICERS

Section 1

The officers of the Association shall be a President, a President Elect, a Treasurer, and the Directors; in addition there shall be present at the discretion of the President those whose responsibilities promote the functioning of the Association. These officers shall perform the duties described in these bylaws and by the parliamentary procedures of *Robert’s Rules of Order.*

Section 2

At the annual business meeting results shall be presented by the Election Committee Chair.

Section 3

Only members of the Association shall vote in the election of officers.

Section 4

The officers shall be elected by ballot to serve for one year with the exception of the Treasurer, who shall serve for two (2) years. An Executive Secretary shall be appointed by the President at the direction of the Board of Directors.

Section 5

The Board of Directors shall serve for a period of three years.

ARTICLE V ASSOCIATION MEETINGS

Section 1

The business meeting of the Association shall be held concurrent with and as part of the annual meeting of the National Middle School Association, and shall be held for the purpose of conducting business that may arise.

Section 2

Members of the Association, present and in good standing, shall constitute a quorum.

ARTICLE VI THE BOARD OF DIRECTORS

Section 1

The Board of Directors shall consist of the officers of the Association, the Directors, and the Executive Secretary ex officio.

Section 2

Directors shall be selected on a geographically representative basis, one (1) from each of the four territorial regions established by the National Middle School Association. They shall serve three-year overlapping terms.

Section 3

The Board shall have general supervision of the affairs of the Association, fix the hour and place of meetings, make recommendations to the Association, and shall perform such other duties as are specified in these bylaws. The Board shall be subject to the orders of the Association, and none of its acts shall conflict with action taken by the Association.

Section 4

The Past-President shall become a member of the Board for one (1) year following the term of office/

Section 5

Members of the Board who are unable to attend board meetings may be replaced. The President may appoint to fill the unexpired term of the member.

Section 6

The Board shall appoint an Executive Secretary for a term of one year with the privilege of reappointment.

Section 7

The President, President Elect, Past-President, Treasurer, and members of the Board of Directors shall have a vote.

Section 8

Five, to include at least one officer, shall constitute a quorum.

Section 9

The National Association may recognize state level affiliate groups.

A potential state affiliate shall:

- have bylaws with provisions that parallel those of the Association of Professors of Middle Level Education, and
- meet the additional approval criteria of
  having elected officers
  having a representative board
  having regularly scheduled meetings
  having yearly goals
  submitting an annual report to the Association, which indicates continued compliance with approval criteria

ARTICLE VII COMMITTEE CHAIRS

Section 1

The Finance Committee shall be chaired by the Treasurer. It shall be his/her duty to prepare an annual budget. The budget shall be submitted to the Board of Directors for approval. An official audit shall be made prior to the end of each year.

Section 2

The Membership Committee shall be appointed by the President. The Membership Chair shall report to the board periodically.

Section 3

The Executive Secretary shall serve as the Conference Coordinator.

Section 4

The Election Committee shall be chaired by the President Elect.

Section 5

The Publications Committee Chair shall be appointed by the President.

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