PROFESSIONAL DEVELOPMENT FOR TEACHERS

In support of *This We Believe* characteristics:
- Educators who value working with this age group and are prepared to do so
- A shared vision that guides decisions
- High expectations for every member of the learning community

Professional development for teachers (i.e., staff development, in-service education, continuing education, teacher training) is the range of formal and informal processes and activities that teachers engage in both inside and outside of the school, in order to improve their teaching knowledge and skills (Jackson & Davis, 2000). It should be targeted, ongoing, and embedded into a teacher's workday (National Staff Development Council, n.d.). The ultimate goal of teacher professional development is improving student learning outcomes (Guskey, 2003).

Professional development for middle grades teachers should include three critical areas of knowledge:

- Content knowledge (deep understanding of their discipline),
- Pedagogical knowledge (instructional strategies), and
- Knowledge about the uniqueness of young adolescent learners.

Research supporting the benefits of effective teacher professional development has become highly sought after in light of the focus on highly qualified teachers in the No Child Left Behind (NCLB) Act of 2001 (2002). At least 100 studies in the past decade have documented that highly skilled, highly effective teachers help students learn more. Teachers who are well prepared and trained are more effective in the classroom and therefore have the greatest impact on student learning (Killion, 1999). We also know that the best way to increase teacher effectiveness in the classroom is through regular, high quality professional development. Teachers themselves report that the more time they spend in professional development activities, the more likely they were to indicate that it had improved their instruction (Killion, 1999; National Center for Education Statistics, 2001). One study also identified two important factors that influence the impact of professional development on

teaching–the extent to which teachers felt that their professional development was linked to other program activities at the school, and whether the professional development activity was followed up with school-based activities (NCES, 2001). Researchers also agree that the success of school improvement and reform initiatives hinges, in large part, on the qualifications and effectiveness of teachers (Killion, 1999; Garet, Porter, Desimone, Birman, & Yoon, 2001).

Professional development activities also can be linked to increased student achievement. The National Staff Development Council (NSDC) identified 26 staff development programs for middle grades teachers with documented evidence to demonstrate the link between staff development and increased student achievement (Killion, 1999). Further evidence linking professional development to student achievement can be found in a 1998 study involving a half million elementary and middle grades students in 3,000 Texas schools. Researchers found that the most important factor in student achievement was teacher quality (Hanushek, Kain, & Rivkin, 1998). A national study of over 1,000 mathematics and science teachers found similar results. Sustained and intensive professional development is more likely to have an impact on enhanced teacher knowledge and skills, and ultimately student achievement, than shorter professional development activities (Garet et. al., 2001). The results from this study also indicate that professional development that is focused on subject matter, provides teachers with opportunities for "hands-on" work, and is integrated into the daily life of the school is more likely to produce enhanced knowledge and skills that positively impact student achievement.

Numerous experts have studied what constitutes effective professional development (Garet et. al., 2001; Guskey, 2000, 2003; Killion, 1999; NCES, 2001; NSDC, n.d.; Pate & Thompson, 2003; Richardson, 2003; Shulman, 1987; Sparks, 1997; Sparks & Hirsh, 1997). The characteristics that influence the effectiveness of professional development, however, are multiple and highly complex (Guskey, 2003). Of the many characteris-

National Middle School Association
4151 Executive Parkway, Suite 300
Westerville, Ohio 43081
Phone: (800) 528-NMSA
Fax: (614) 895-4750
www.nmsa.org

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tics that have been examined, the ones most commonly supported by educational experts as improving the quality and effectiveness of professional development include:

- Enhances teachers' content knowledge and pedagogical knowledge
- Based on the best available research evidence
- Incorporates principles of adult learners
- Relevant and focused (i.e., results-driven)
- Standards-based
- Ongoing and continuous
- Embedded in day-to-day responsibilities
- Aligned with school-wide improvement goals
- Collaborative and collegial
- Provides opportunities for discussion, reflection, and follow-up

The need for teacher professional development, particularly in the middle grades, is fully recognized by experts. In *This We Believe*, National Middle School Association (NMSA) states that teachers need specific teacher preparation before they enter the middle level classroom and continuous professional development as they pursue their careers (NMSA, 2003). In T*urning Points 2000*, one of the seven recommendations is to staff middle grades schools with teachers who are expert at teaching young adolescents, and engage teachers in ongoing, targeted professional development opportunities (Jackson & Davis, 2000). Despite these recommendations for ongoing professional development, middle grades teachers are not currently engaged in regular professional development. In a study of 8,300 middle grades teachers in four U.S. states, researchers found that the frequency and depth of most professional development currently provided to classroom teachers falls well short of meeting their needs. Middle grades teachers participate in professional development activities an average of only several times a year (Flowers & Mertens, 2003). Another study has similar findings in that for 9 out of 10 content areas of professional development, teachers typically report that they had spent the equivalent of one day or less on the activity during the previous year (NCES, 2001).

Research also shows, however, that the number of hours spent in professional development activities is related to the extent to which teachers believe that the participation improved their teaching. Results from a national study conducted in 2000 indicate that teachers who participated for more than eight hours in professional development activities were more likely than those who spent one to eight hours to report that it improved their teaching (NCES, 2001).

How often should teachers engage in professional development activities? NMSA supports the NSDC resolution that quantifies the frequency with which teachers should be engaged in professional development. Schools should dedicate a minimum of 10 percent of their budgets, excluding salaries and benefits, to professional development and devote at least 25 percent of a teachers' work time to learning and collaborating with colleagues (NSDC, n.d.).

Schools should offer a wide variety of professional development opportunities to teachers. The one-size-fits-all approach to professional development is not effective. Middle level teachers have different needs for professional development that are related to factors such as their teaching experience and the type of certification they hold (Flowers & Mertens, 2003). An effective design for implementing professional development is one that integrates district-wide and site-based experiences. A thoughtful combination of large-scale (district) and context-specific (school) experiences can optimize the benefits of each while improving the efficiency and effectiveness of professional development (Guskey, 2000). According to research, middle grades teachers are not currently getting balanced professional development. The most frequent types of professional development activities occur within their own school. Professional development activities outside the school occur much less frequently. In addition, middle grades teachers indicate a high level of need for additional professional development in multiple areas, not just one or two (Flowers & Mertens, 2003).

Formal professional development experiences can include:

- Attending classes or workshops
- Attending conferences
- Visiting another school

Informal professional development experiences can include:

- Regular collaboration with other teachers (e.g., study groups, interdisciplinary teams)
- Joint lesson planning
- Peer coaching
- Collaboratively reviewing student work

More research is needed that investigates the relationship between high quality professional development and student learning outcomes. Schools should continually request research results from any professional development provider that they consid-

er working with so that they can select the most effective training activities. Schools should also include evaluation procedures in any professional development activity that they implement so that they can understand the impact of the activities on student learning.

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This study uses a national probability sample of 1,027 mathematics and science teachers to provide the first large-scale empirical comparison of effects of different characteristics of professional development on teachers' learning. Results indicate three core features of professional development activities that have significant positive effects on teachers' self-reported increases in knowledge and skills and changes in classroom practice: (a) focus on content knowledge; (b) opportunities for active learning; and (c) coherence with other learning activities. It is primarily through these core features that the following structural features significantly affect teacher learning: (a) the form of the activity (e.g., workshop vs. study group); (b) collective participation of teachers from the same school, grade, or subject; and (c) the duration of the activity.

Guskey, T. R. (2000). *Evaluating professional development.* Thousand Oaks, CA: Corwin Press.

This book offers educators guidance about how to ask evaluation questions and gather precise information about what contributes to effective professional development programs. It emphasizes the importance of concentrating on both the participants' reactions to the programs and the impact that the professional development has on student learning. It considers the usefulness of all levels of the professional development process, from planning and implementation to follow up and institutionalization. At each level, the book discusses the central questions that should be addressed, the pertinent information that needs to be gathered, and how best to present that information to various audiences. It also considers suggestions, procedures, and instruments that school and district leaders can use to modify their professional development efforts and assess the impact of various programs and activities. Each chapter in the book is organized around a series of critical questions related to program evaluation and ends with a set of reflection questions. Author's notes, which include vignettes, quotes, and research based musings, are highlighted in boxes and are scattered throughout the text. Tables, figures, and sample documents are found throughout the book.

Killion, J. (1999). *What works in the middle: Results-based staff development.* Oxford, OH: National Staff Development Council.

This book, developed for grades 6 through 8, is a compilation of the results of 26 staff development programs in the core content areas. The guide identifies the common characteristics of the programs and gives descriptions of programs currently in use. The information and resources provided allow for selection, design, and evaluation of staff development programs to improve student achievement and meet content area standards. Descriptions are provided of programs in content areas such as mathematics, science, and language arts. The criteria included in this resource were that results could be measured in terms of student performance, that the program was well defined and used at multiple schools, and that the program was designed to increase teachers' content knowledge or content specific pedagogical skills.

Each program description includes the context in which the program was successfully implemented, the design of the staff development program, and a summary of results, including the sources of evidence used to measure student achievement. The last part of the book is designed to help a school choose or develop its own programs. It starts by listing the common characteristics of the 26 programs featured. Questions and a worksheet are provided to help guide a school in making the decisions necessary for selecting a staff development approach. Finally, some of the steps necessary to move forward with a staff development program are outlined.

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This report presents national data on teacher preparation and professional development, based on a survey conducted in 2000 of 5,253 full- and part-time public school teachers in regular elementary, middle, and high schools in the 50 states and the District of Columbia . Data from this survey, which was a follow up to a 1998 NCES study, provide a national profile on teacher education, teacher participation in formal professional development and collaborative activities related to teaching, and teachers' feelings of preparedness for various classroom activities and demands. This report highlights significant findings from the 2000 survey and compares them to those from the 1998 survey. Available online at: http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2001088.

RECOMMENDED RESOURCES

Association of Illinois Middle Level Schools. (forthcoming). *Professional development kit: Looking at student work.* Westerville, OH: National Middle School Association.

Berckemeyer, J. C., & Kinney, P. (2005). *Professional development kit: The what, why, and how of student-led conferences.* Westerville, OH: National Middle School Association.

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AUTHORS

Steven B. Mertens is senior research scientist at the Center for Prevention Research and Development, University of Illinois, Champaign, Illinois .

Nancy Flowers is senior coordinator of research programs at the Center for Prevention Research and Development, University of Illinois, Champaign, Illinois.