THE
IOWA
PROFESSIONAL
DEVELOPMENT
MODEL

2002
STATE BOARD OF EDUCATION

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The Iowa Professional Development Model

In recent years, research in the fields of school improvement and staff development* has converged in a remarkable consensus about the most effective ways to improve student achievement. The agreement is all the more surprising because it comprises a cluster of variables rather than assertions that any single action alone will increase student learning. This consensus includes:

- The importance of data for driving school improvement and student achievement goals;
- The alignment of assessment with curriculum and instruction;
- The provision of quality staff development with research-based content;
- The necessity for learning communities that study what is effective and work collaboratively to learn and implement new knowledge;
- The study of the implementation of planned change;
- The evaluation, both formative and summative, of planned change for its impact on student learning; and
- The guidance of strong leaders—teachers, principals, central office staff, superintendents, and school boards—operating collectively and collaboratively to govern the staff development/school improvement system.

At the same time, legislation at the federal (No Child Left Behind Act, 2001) and state levels has reinforced the need for these variables to operate simultaneously to increase the learning of our students. The National Staff Development Council (NSDC) has published revised standards for the conduct of staff development that focus not only on the process of staff development, but the content and context as well (NSDC, 2001). Given the overwhelming evidence that well-designed staff development, fully integrated with effective school improvement practices, can increase student learning (Cohen and Hill, 2001; Consortium for Policy Research in Education, 2000; Elmore and Burney, 1999; Joyce and Calhoun, 1996; Joyce and Showers, 2002; Loucks-Horsely, et al., 1998; Schmoker, 1996; Supovitz, Mayer and Kahle, 2000), the NSDC now states that the purpose of staff development is increased student achievement (NSDC, 2001).

The model described in the following pages is a collaborative effort of the Iowa Department of Education (DE) and a stakeholders group representing area education agencies (AEAs), professional organizations (teachers, administrators, school boards), local education agencies (LEAs), higher education and other providers of professional development in the state of Iowa. (See Appendix A for a list of the stakeholders.) The model reflects their study, collaboration, reflection and negotiation and provides an invaluable roadmap to the conduct of staff development for educators in Iowa.

*This document uses the terms “professional development” and “staff development” interchangeably.
Elements of the Professional Development Model

The attached figure represents a model of professional development embedded in a school improvement environment and following an action research framework. While professional development may take many forms and follow many processes, this model is proposed for the state of Iowa for several reasons. First, is the legislature’s intention that professional development support “best teaching practice” and translate into improved student learning in all areas. (In fact, both the Iowa Teacher Quality legislation and the national No Child Left Behind Act (2001) specify the use of research-based content for staff development to increase the probability that staff development programs will result in increased student learning.) Second, since student achievement most frequently results from the collective focus of schools on specific student learning outcomes (Elmore, 2002; Fullan, 2001; Joyce and Showers, 2002; Schmoker, 1996; Slavin, et al., 1996), the model is designed as a structure for school professional development efforts operating under the umbrella of district goals and leadership (as per the Comprehensive School Improvement Plan (CSIP)), with appropriate modifications for individual and collective professional development agendas.

The fundamental tenet of the professional development model is that student need will drive decision making, and student learning will form the basis on which professional development is judged. Thus, while much of the professional development in which teachers currently engage can be integrated with that provided for schools and districts, there are some professional development activities (e.g., state mandates such as child abuse prevention) that fall outside the purview of this model.
Iowa Professional Development Model:

Student Learning at the Center of School Improvement/Staff Development

Operating Principles

- Focus on Curriculum, Instruction, and Assessment
- Participative Decision Making (School/District)
  - Simultaneity
  - Leadership

CSIP PROCESS

Ongoing Cycle

- Training/Learning Opportunities
- Collaboration/Implementation
- Ongoing Data Collection (Formative Evaluation)
- Selecting Content and Providers
- Designing Process for Professional Development
- Goal Setting and Student Learning
- Collecting/Analyzing Student Data
- Program Evaluation (Summative)
Professional Development that Increases Student Achievement: Foundations of the Model

1. The **focus is on instruction and curriculum**. Theory is present underlying the instructional strategy or model selected for staff development. The strategy or model:
   - directly addresses student achievement in an academic area (deep content knowledge in reading, math, science, etc.)
   - has a research base (evidence of improved student achievement across settings, across time, and for all students).

   (Bransford, Brown and Cocking, 1999; Calhoun, 1994; Kennedy, 1990, 1999; Joyce and Showers, 2002; Schmoker, 1996; Slavin and Fashola, 1998)

2. The **study of implementation** is built in as a routine. The faculty studies student data related to the content of professional development. The faculty regularly studies implementation data to know what students are experiencing.

   (Joyce and Calhoun, 1996; Joyce and Showers, 2002; Slavin, 1996)

3. **All site and district personnel** responsible for instruction participate in the professional development. All teachers are included and the principal is heavily engaged in all aspects of the initiative. District administrative personnel and the approved provider are involved in training and in providing follow-up. (Operationally, this looks different at the elementary and secondary levels.) Research is clear that when increased student achievement is the goal, it is the collective efforts of educators that accomplish these goals.

   (Elmore, 2000; Joyce and Calhoun, 1996; Joyce and Showers, 2002; Newmann and Wehlage, 1995; Rosenholtz, 1989; Slavin, 1996; Wallace et al, 1984, 1990)

4. **Goals focusing on student learning** provide the direction for staff development efforts. There is a clearly identified need based on student data and the district’s long-range and annual improvement goals as described in the CSIP. The strategy or model selected for staff development can be interpreted/applied in classroom settings. The desired teacher behaviors and the desired student behaviors are described.

   (Bernhardt, 1998; Rosenholtz, 1989; Schmoker, 1996)
5. **Intensive professional development** is provided. In addition to presentations of information and theory about the instructional strategy, participants are provided with multiple demonstrations modeling the use of the strategy and opportunities to practice using the instructional strategy demonstrated. Professional development is sustained over time. The initiative is designed to last until implementation data indicate that the teachers are implementing the strategy accurately and frequently and student performance goals are met.

(Joyce and Showers, 1983, 2002; NSDC, 2001; Odden, et al., 2002; Wallace, LeMahieu, and Bickel, 1990)

6. **Collaboration** is built in with opportunities for teachers to work together on a regular basis. The professional development initiative is part of the day-to-day work of teaching. The focal point of professional development planning and implementation is at the building level. Adequate time is provided for workshop experiences and workplace supports, i.e., planning together, rehearsing and observing lessons (coaching), practicing strategies in the classroom, and collecting, analyzing and discussing data.

(Fullan and Hargreaves, 1991; Lieberman and Miller, 1996; Little, 1997; Rosenholtz, 1989; Showers, 1982, 1984, 1985; Showers and Joyce, 1996; Showers, Joyce and Bennett, 1987)

7. The initiative has built in **ongoing follow-up, support, and technical assistance**. An LEA or AEA consultant or other approved provider provides ongoing technical assistance. This technical assistance occurs regularly in classrooms and in the workshop setting.

(Joyce and Showers, 2002; Rosenholtz, 1989; Showers, 1982, 1984)

8. **Formative evaluation** ensures the regular and systematic collection of data relevant to stated goals (student progress, implementation of innovations, etc.) and **summative evaluation** provides information about the cumulative impact of a planned change on student learning. Data collected during the formative evaluation process may also be used in the summative evaluation. When student need is driving the planning and design of staff development, data on student response to the content of staff development is essential throughout the process.

(Calhoun, 2001; Hertling, 2000; Yap et al., 2000)
DEFINITIONS OF MODEL COMPONENTS

Many of the elements of the Iowa Professional Development Model are grounded in legislation passed by the Iowa General Assembly (Teacher Quality Program). Approximately a year following Iowa’s passage of the Teacher Quality bill, the federal No Child Left Behind Act (2001) was passed. With respect to school improvement, staff development and student achievement, the two bills have considerable overlap. In the following section, relevant parts of the legislation are summarized.

Student Achievement and Teacher Quality Program:
Summary of Legislation

In May of 2001, the Iowa General Assembly passed landmark legislation that identifies professional development as a key component of school reform in Iowa. The intent of the Iowa General Assembly, as stated in Senate File 476, is to create a student achievement and teacher quality program that acknowledges that outstanding teachers are a key component in student success. The Student Achievement and Teacher Quality Program is sharply focused on increasing student achievement through acknowledging and supporting the improvement and acquisition of the knowledge and skills of teachers through professional development. The major elements of the legislation are:

- mentoring and induction programs that provide support for beginning teachers;
- professional development designed to directly support best teaching practice;
- career paths with compensation levels that strengthen Iowa’s ability to recruit and retain teachers;
- the eight Iowa Teaching Standards and supporting criteria which shape the implementation of each aspect of the Teacher Quality Program; and
- team-based variable pay program that provides additional compensation when student performance improves.

Professional Development

The purpose of professional development is to provide a structured, supportive, and collaborative environment to promote professional growth that will further the district’s comprehensive school improvement plan (CSIP) goals in order to increase student achievement. In the No Child Left Behind Act (2001) professional development is defined as activities that:

- improve and increase teachers’ knowledge of the academic subjects the teachers teach, and enable teachers to become highly qualified
- are an integral part of broad schoolwide and districtwide educational improvement plans
- are high quality, sustained, intensive, and classroom-focused in order to have a positive and lasting impact on classroom instruction and the teacher’s performance
in the classroom; and are not one-day or short-term workshops or conferences, and
• advance teacher understanding of effective instructional strategies that are —
  - based on scientifically based research; and
  - strategies for improving student academic achievement or substantially
  increasing the knowledge and teaching skills of teachers (No Child Left
  Behind Act, Title IX, Sec. 9101 [34]).

District Career Development Plans

The Iowa Teacher Quality Program requires each district to submit a district career
development plan as part of the CSIP. [While it is the district plan that is submitted via the CSIP
process, schools within the district may need to implement appropriate content and strategies
for their particular buildings to meet the district’s goals for student achievement. Schools are not
required to submit school improvement plans, but district plans are encouraged to include
variations in staff development that will be used by individual attendance sites within their LEA.]

During the 2003-04 school year, districts will continue the district career development planning
process by designing building-level professional development and individual teacher career
development plans (building-level plans and individual teacher plans do not need to be
submitted to the DE). Districts will analyze their current practices, determining appropriate
district resources and supports for assisting building level staff in selecting appropriate building
level strategies for improving student learning. Local education agencies will be required to
submit district career development plans with their CSIP for 2004. By September of 2004, the
teacher evaluation model and professional development plans must be fully implemented in
each local district and school. The district career development plan must describe how the
district will provide all teachers access to career development and program offerings. To
summarize the timelines:

• 2002-03 school year – The DE leads the development of technical assistance materials and
dissemination efforts for the staff development model. Districts begin examination of district
data on student achievement, goal setting, and exploration of suitable staff development
content. (See Appendix B for School Improvement/Staff Development: Evaluating Current
Plans. This self-evaluation tool provides a resource for districts to use in evaluating their
current professional development practices.

• 2003-04 school year – Districts continue career development planning process by designing
building-level professional development and individual teacher career development plans.

• September 2004 – LEAs submit district career development plans with their CSIPs.
Evaluation model and staff development model ready for implementation.
Individual Teacher Career Development Plans

The Teacher Quality legislation provides that an individual teacher career development plan will be developed, in cooperation with the teacher’s supervisor, for each career teacher in the district. The individual plan must be based on the Iowa Teaching Standards appropriate to the student achievement goals of the district and the teacher’s needs. Ideally, the goals for individual teacher career development plans and the district career development plan will be very closely aligned. The individual teacher career development plan for the career teacher may be congruent with the district career development plan, and the process described in the Iowa Model for Professional Development may be used simultaneously to implement both. Thus, a fourth grade teacher whose school is engaging in the study and implementation of a new math curriculum would likely have an individual plan to study and learn the new math curriculum. Should he/she be identified during the evaluation process as needing additional skills in classroom management, however, that teacher’s individual teacher career development plan would include staff development to address this specific need in addition to the learning of the new math curriculum. The individual teacher career development plans of the faculty members of this building would look very similar because of the collaborative work being undertaken to study the same instructional content.
THE IOWA PROFESSIONAL DEVELOPMENT MODEL

The Teacher Quality Program requires the DE to identify a model of career development practices that produce the link between staff development and improved student learning. The Iowa Professional Development Model provides guidance for local districts to use when designing, implementing, and evaluating the district career development plan as well as the individual teacher career development plans. The Iowa Model provides a process that focuses on improving student learning and engages all teachers in collective professional development.

The Iowa Professional Development Model is a recommended framework intended to provide guidance to districts, schools and individuals as they develop staff development programs targeted at the learning needs of their students. Because the elements of the model are the elements common to improvement efforts that consistently produce student achievement gains, it is recommended that districts and schools model their staff development programs on the framework presented in this document.

Iowa Professional Development Standards

The Professional Development Standards established in the Teacher Quality Program are to be followed by the approved provider(s) and the local district.

Professional development:
- aligns with the Iowa Teaching Standards;
- focuses on research-based instructional strategies aligned with the school district’s student achievement needs and the long-range and annual improvement goals established by the district;
- delivers professional development that is targeted at instructional improvement and designed with the following components:
  - student achievement data and analysis
  - theory
  - classroom demonstration and practice
  - observation and reflection
  - teacher collaboration
  - integration of instructional technology, if applicable;
- includes an evaluation component that documents the improvement in instructional practice and the effect on student learning; and
- supports the career development needs of individual teachers.
Approved Provider

Local districts will be required to identify an approved provider as part of the district career development plan. A provider is defined in the Teacher Quality Program legislation as a school district, a consortium of school districts, AEAs, higher education institutions, and other public or private entities including professional associations. Individuals or organizations that provide ongoing technical assistance to the local district in the design, implementation, and evaluation of the district career development plan will need to follow procedures for becoming approved and meet criteria for approval of professional development providers. The Iowa Department of Education is in the process of establishing procedures and criteria to approve providers. Area Education Agencies, as part of their accreditation process, will receive approval as providers.
OPERATING PRINCIPLES FOR THE IOWA PROFESSIONAL DEVELOPMENT MODEL

Focus on Curriculum and Instruction and Assessment

The primary focus of professional development in the Iowa Model is on the classroom—the curriculum students are expected to learn and the instructional strategies that make the curriculum accessible and comprehensible. In Iowa, districts develop content standards for basic subjects and align appropriate assessment measures to their standards. Districts are also required to administer a norm-referenced standardized measure. The common measures used are the Iowa Test of Basic Skills (ITBS) and the Iowa Tests of Educational Development (ITED). The state has established achievement standards for the ITBS and the ITED. The achievement of students on these tests can thus serve as a benchmark (comparison) of the district’s achievement against the state and the nation. Specific skills for each achievement level on these tests are described. The Model assumes that individuals, schools, and districts will attend primarily to data from the local assessment systems to determine what is taught and how it is taught—curriculum and instruction—in their efforts to increase student learning. Thus, while a school/district may wish to strengthen parent and school cooperation, or school climate, such efforts would not be the primary focus of the professional development agenda, but rather an adjunct to the professional development program (see NSDC, 2001 and the section below on “simultaneity.”

Participative Decision-Making

Governance is an issue that should be addressed (expeditiously) before entering the proposed professional development model. While there may well be some teachers who have separate staff development plans, primarily based on growth needs identified through the formal teacher evaluation process that may be outside the scope of the district/building student achievement goals, the majority will have individual plans that are congruent with their school’s staff development and school improvement plans. Schools must make many decisions in order to operate within the proposed model (e.g., setting a goal, selecting content and providers aligned with the goal, designing structures for collaboration and the study of implementation, etc.), many of which will require district coordination and support. To prevent decision-making processes becoming the focus of change efforts, schools need to decide how they will make decisions and what is required for them to make binding decisions.
The argument for participative decision-making to govern collective staff development efforts is deeply rooted in our democratic traditions, namely that those affected by laws and policies should have a voice in shaping those laws and policies. Because professional development in schools has so often been a voluntary and self-governed enterprise, the issue has often been moot. If the only “collective” staff development in a district is a speaker who opens the school year by addressing the faculties of all schools in the district, teachers may have been quite content to let someone else choose the speaker. Such events have little impact on the daily lives of teachers and students in classrooms. When, however, staff development is intended to impact what is taught and how it is taught, democratic decision making becomes highly relevant. The school that decides to address student literacy needs by learning and implementing new teaching strategies and assessment techniques very much needs the input of its faculty.

The issue of “binding” decisions becomes relevant whenever a group decides on a course of action. If a faculty or subgroup of a faculty (e.g., all K-3 teachers, the math or science departments of a high school) decides as a group to address an identified student need by taking a specific course of action, it is important that all members of the group abide by the group’s decision. At this point, individual plans support and contribute to the group’s decision. Assessing the impact of the group’s actions on student learning is extremely difficult, not to mention frustrating, if only some of the group actually implement the planned change. As a matter of practicality as well as morale, it is critical that any group engaging in collective professional development for the purpose of increasing student achievement agree how they will govern themselves during the process. It is critical that that process not enable one or two members of the group to prevent any and all planned change.

**Simultaneity**

The principle of simultaneity governs professional development efforts aimed at increasing student achievement. That is, the content of professional development (e.g., reading, math, science) is addressed simultaneously with the context (e.g., leadership and resources, the development of a learning community) and process (e.g., selection of research-based content, data-based decision-making, and collaboration) of professional development (see the National Staff Development Council’s Standards for Staff Development, 2001). The principle of simultaneity dictates that schools begin the improvement process rather than sequentially working on context (leadership, resources, learning communities) and then process standards (data collection and analysis, design of training and collaboration) before beginning changes in curriculum and instruction.
Leadership

The importance of leadership, at all levels, cannot be overemphasized for the success of school improvement efforts in which increased student learning is the goal. The leadership of teachers, principals, district administrative staff and school boards, working interdependently, is critical if the Iowa Professional Development Model is to drive increased achievement for all students.

As was thoroughly illustrated by the May 2002 issue of *Educational Leadership*, there is a consensus not only that powerful leadership is essential for successful school improvement, but that leadership must be distributed throughout the organization if changes are to be sustained (Elmore, 2002; Fullan, 2002; Lambert, 2002.) Glickman (2002) notes that districts with long-term records of successful innovation, implementation and improvement have a pervasive system of beliefs and processes that are carried by all stakeholders in the system and are thus invulnerable to the departure of “key” leaders.

Superintendents are charged with crafting a vision of what is possible for a district and communicating it powerfully to district staff, the board and the community (DuFour, 2002). While wise superintendents involve all stakeholders (parents and community, teachers and administrators) in building a vision for students served by their district, it is most often the superintendent who keeps that vision alive and viable. Superintendents and their boards also play a critical leadership role in providing resources and support to all those within the system working to make reality of a vision of increased learning for all students. Because superintendents generally delegate the innumerable tasks of turning vision into action, it is the leadership of district administrative staff, with the assistance of intermediate agencies, universities and consultants, that determines how and if that vision is implemented (Grove, 2002).

It is the leadership of school boards that ensures policy to support systemic change efforts. As was clear in the “Lighthouse” study (Iowa Association of School Boards, 2000), however, the leadership of school boards is much broader and more critical than many have realized. Several critical differences separated the boards of high and low achieving districts in the Lighthouse study — the focus of the board on curriculum and instruction, the prevalence of elevating beliefs (what is possible) rather than accepting beliefs (acceptance of the status quo), the support of collegial norms within the district, and confidence that teachers and students could be successful. In other words, boards that reaffirm the district’s vision and progress toward that vision by providing sufficient resources, supporting the efforts of teachers and principals, acknowledging and publicizing successes while problem-solving failures create cultures where progress is seen to be not only possible, but likely.
Principals are broadly acknowledged to be a pivotal factor in successful staff development and school improvement efforts. As gatekeepers of the school culture, principals maintain a focus on teaching and learning, work collaboratively to develop collective goals aligned with district goals and standards, and assist with data collection, analysis and use. In successful school improvement efforts, principals model learning and are active participants in staff development. They are creative and flexible in their use of resources and adopt a problem-solving stance when obstacles are encountered. The principal leader balances pressure and support to ensure the implementation of planned change so that the goal of increased student learning can be realized.

Finally, and perhaps most importantly, it is the leadership of key teachers that ultimately determines the success of school improvement efforts. The active participation of teachers in the study of data and the setting of goals is critical, as their observations of students are most grounded. Teacher input into the content and process selected to further student achievement goals is also critical because it is teacher leaders who must facilitate the collaborative work necessary for successful implementation of planned changes. In every successful school improvement initiative, key teacher leaders manage the implementation of planned change, assist other teachers who are struggling with the change, ensure the collection of sufficient data to guide future planning, and actively participate in that planning.

Changing the way we teach and students learn in schools of the 21st century is a complex enterprise requiring distributed leadership throughout the system.
THE PROFESSIONAL DEVELOPMENT CYCLE

Collecting/Analyzing Student Data

Many sources of data are appropriate for decision-making about needed staff development. The key to data collection, however, is a focus on the students in a classroom, school, district, and/or state. (See Appendix C for a description of QIC-Decide, a tool for using data to guide decision-making which is widely used in Iowa.)

Data can be divided into roughly two categories – those data that indicate the status of skill development in areas of concern and those data that explore hypotheses to explain that status. Standardized tests of reading, math and science, such as the ITBS and the ITED, are indicators of the status of skill development; they provide a measure of a student’s current levels of understanding and proficiency with respect to same-age comparison groups at a school, district, state or national level. When data are being examined to determine the current status of student skill and knowledge on the district content standards, it is critical that district administrative personnel make available to principals data on their specific schools, and that principals make available to teachers data on their specific students. Other examples of tests of student skill development include the diagnostic tests used by many K-3 teachers to determine mastery of beginning reading skills, criterion-referenced tests developed by many districts to measure the extent to which students are meeting the content standards of the curriculum; and teacher-made tests that examine the mastery of specific learning objectives.

Data that explore hypotheses to account for current levels of student skill, understanding and proficiency include information about students’ individual characteristics (e.g., hearing and vision acuity, sleep and nutrition patterns, indicators of abuse and/or drug use, attention disorders and learning disabilities, etc.); information about the professional staff responsible for students’ learning (e.g., teacher preparation and credentialing, expectations – for high achievement levels for all students, attitudes toward diverse social and ethnic groups, etc.); information about the school and home environments (e.g., leadership’s vision for student growth and clarity with respect to means and ends, the presence or absence of collegial norms, attitudes toward and quality of professional development programs, socioeconomic status, number of migrant families, etc.). Data about the implementation of current programs also fit into this category. For
example, if a district has adopted a math curriculum that appears not to be affecting student math skills, it is important to examine the actual level of implementation of the program before discarding the investment in materials and training. The types of data collected to explore possible explanations for student learning, or lack of learning, are extremely diverse and are indicative of the beliefs of professionals in the workplace as well as the history and norms of individual schools, districts and communities.

Districts/schools that are collecting data on student learning in order to set goals for improved student achievement and make decisions about professional development that will advance them toward those goals have many options available to them. In studying data, it is important to look for patterns and frequencies of phenomena. As part of the CSIP process, all schools/districts will need to collect the first type of data – current levels of student skill development – to determine the current achievement patterns of their students and implications for needed improvements. Are subgroups of racial, ethnic, socioeconomic status (SES), limited English proficient (LEP), gender, and individualized education program (IEP) populations being equally well served by current educational programs? Are reading comprehension or math problem-solving difficulties distributed across a broad range of students or do problems cluster in subgroups? What percentage of the total student population and of each subgroup are meeting the expectations laid out in district standards and benchmarks? Do scores vary markedly between teachers or grade levels? It is from these data that goals for student learning are formulated, so it is critical that schools have sufficient data and examine it in enough depth to determine the current levels of student proficiency in the basic subjects. Because the CSIP process involves multiple stakeholders (e.g., teachers, administrators, parents, community members, etc.) in the analysis of data to determine student need, it is critical to the entire improvement process that data be classified and shared in ways that are clear for both education professionals and laymen. The added benefit from broad participation at the data analysis and goal setting stages is the building of a shared understanding of educators’ needs for continuous learning aimed at addressing student learning needs.

(See Appendix C for the QIC-Decide process to assist with forming questions and using data to guide decision-making.)

Districts/schools will also need to examine data with the potential to explain the student needs identified. Two sources of data are good starting points because of their explanatory power – the current curricular, instructional and assessment programs being used and research on successful programs. In settings that serve large numbers of students living in poverty, information about the nutrition and health status of students should help education professionals ameliorate conditions that could depress or prevent students’ abilities to profit from quality instructional programs. All districts should examine their dropout data to determine how many of their students fail to complete high school and who those students are. Data on school climate can identify levels of expectation for student learning, the presence or absence of collaborative structures, and the understanding of school and district goals for student achievement. Often,
areas of concern raised by these types of data can be addressed in conjunction with or in support of the district’s and/or school’s main improvement agenda.

Examination of multiple sources of data will enable schools and districts to determine the current status of student learning, identify needs for improvement, and provide avenues to explore to advance long-range and annual improvement. The concept of simultaneity is extremely important at this stage – as goals are set and content selected for staff development that will advance the district/school toward its student achievement goals, multiple sources of data may indicate that poor math skills require modifications in the standards and benchmarks, new teaching strategies that put that curriculum within the reach of students, and the introduction of collaborative structures that enable teachers to begin the process of collectively working toward a shared goal.

Goal Setting

Once data are analyzed, goals can be stated. When a district determines that reading achievement needs to be improved, the goal must be much more specific than a desire to “increase scores” on a reading test. Close scrutiny of reading achievement data will reveal if students need decoding and word attack skills, increased sight vocabulary, comprehension strategies, improved fluency, skill in reading non-fiction and technical material, etc. Likewise, when the study of student data identifies poor math achievement, closer scrutiny of test data (e.g., item analysis) can help districts and schools determine if the problem is generalized across all areas of math or specific to problem solving, number concepts, algorithms, or the application of math concepts to real-world situations. Specific goals enable faculties to decide exactly what they need to learn and provide focus throughout an improvement effort.

Typically, district and school goals are aligned but not congruent. After examining data for all students in a district, district leaders may identify literacy as the primary target for improvement. It may further set goals, such as “By the spring of 2004, 75 percent of students (the entire student population as well as of each major subgroup) will be reading on grade level, and 75 percent of students will meet or surpass the grade level benchmark for writing.” The task then is for each school to closely study the data on its students with respect to literacy. Elementary School A may determine that its reading program is currently resulting in grade-level achievement for 70 percent of its students while only 55 percent of students are meeting the writing benchmarks. Its goal for improvement might thus be to improve writing scores to passing for an additional 10 percent of its students in each of the next two years, and its staff
development program is likely to focus on writing instruction and assessment. High School B, however, discovers in its study of student data that only 48 percent of its students are currently reading at grade level and 51 percent are meeting writing benchmarks. Clearly, both areas are in serious need of attention. Its goals might include raising to grade level the reading scores and writing benchmark of an additional 15 percent of students per academic year. The professional development plan would then logically include the implementation of reading classes for struggling readers, with a small group of faculty engaging in staff development to support that effort. The English faculty might focus its staff development efforts on writing instruction and assessment to meet its annual goal, and the entire faculty might support the efforts of the reading and English departments by learning and implementing “reading across the curriculum” strategies and supporting an extensive recreational reading program. Thus, while the CSIP and Teacher Quality legislation expect each district to study the achievement data for all its students and set goals for improved student learning, individual schools within districts will need to plan how they will respond to district goals, given the specific data for the students in their building.

This is not to suggest that schools must submit formal plans to the state, but rather that schools will need a plan to guide their own improvement efforts as they meet the state’s expectations that individuals and schools align their improvement efforts with district improvement plans.

Although the federal (No Child Left Behind Act, 2001) and district goals may require the statement of specific gains in student achievement, it is recommended that for the purpose of operating within the proposed Iowa Professional Development Model, schools form “ideal” goals, e.g., statements that describe exactly what it is they wish all their students to achieve. This type of goal clarifies the purpose of the change effort and allows for continuous striving toward the ideal. “Ideal” goals clearly communicate to parents, students and staff the aspirations held for the building’s children and provide guidance for the prioritization of the myriad goals that must be included in CSIP. When the goals at the top of the priority list – “ideal” goals – motivate the drive for increased student learning, staff development is free to address significant professional learning that can and frequently does translate into sizable student learning gains.

Finally, when examination of student data reveals multiple needs, it is critical that the district/school focus on only one or two things at a time. Learning new curriculums and instructional strategies and the assessments to guide their use and determine their effectiveness takes considerable staff development time. Until schools are structured to significantly increase not only the time allotted for new learning opportunities but time for collaborative study and work within the school day, existing resources will not support multiple initiatives at any one time.
Selecting Content and Providers

The analysis of student achievement data and the setting of specific goals for improvement function to narrow the choices when selecting content for professional development. Multiple choices are often available once a district/school has determined the area it needs to address. Before deciding on content, however, choices need to be screened. Is there research on the efficacy of the content for achieving a stated goal? Schools/districts may want to request external assistance from AEs, professional organizations, the DE, universities or consultants when examining the claims made for various curriculums and instructional programs. Unfortunately, extreme claims supported by very little evidence abound in our field. (The forms used by the stakeholder group for reviewing all research and the Iowa K-3 Reading Team for examining research in reading appear in Appendix D, as does the new No Child Left Behind criteria for evaluating research.)

Once content and process are decided, a school/district is ready to select the person or persons who can provide training in the new content and to negotiate the process they want in order to learn the new material. For example, a school that has identified reading comprehension strategies as a critical student need can approach providers of instruction in comprehension strategies and negotiate sufficient instruction and demonstrations to ensure mastery of the new instructional strategies. Schools may also want to discuss materials to be used in training settings and data collection on reading comprehension with providers.

This is possibly a good time to revisit the notion of simultaneity in the proposed Iowa Professional Development Model. School A may decide that it needs additional information of assessments available to them for studying the impact of their planned literacy program on student learning. They may decide to seek provider assistance in this area. School B, on the other hand, may have identified reading as a critical student need, but be concerned with student management issues as well. School B may decide to seek provider assistance in helping them learn instructional strategies that not only address literacy, but are highly engaging for students and thus increase on-task behavior. It is extremely important, when choosing providers, to keep the focus on the classroom. A rule of thumb for allocating time to context, process, and content might well be an 80 percent allocation to content/process and 20 percent to context (see Appendix E for a short form of the NSDC’s staff development standards and
Designing Process for Professional Development

In its broadest sense, the process of professional development includes the “how” of the entire process – how data are collected and analyzed for goal setting and evaluation, how collaboration is organized and embedded in the structure of a school, and how learning opportunities are designed. The Iowa Professional Development Model attempts to meet not only the requirements of the state legislature but to incorporate the NSDC standards for staff development.

The specific design of learning opportunities, when the object is learning new material, must enable participants to use the new learning in classrooms. When the material to be learned represents significant departures from existing practice, schools will need to allot time for training that includes theory, demonstrations, and early opportunities to practice (Joyce & Showers, 1981, 2002). Training/learning opportunities must be designed in ways that enable participants to develop skill with new curriculums, instructional strategies and assessments if implementation in the classroom is to be possible.
Training/Learning Opportunities

Training settings (learning opportunities) are the times set aside for the participants to come together and learn the content they have selected to address student achievement concerns. Research on training has demonstrated conclusively that new learning requires substantially more time than the typical one-shot workshop if the new learning is to be implemented in classrooms (Showers et al., 1987). Often, learning opportunities need to be interspersed with classroom practice so that questions that arise from early implementation efforts can be resolved.

The duration and depth of learning opportunities is dependent on the range of knowledge and skills already present in a given group, as well as the functioning of collaborative teams. Needless to say, when content is new to the participants or complex and multi-dimensional, greater time will need to be allocated to training sessions. The relative amounts of theory, demonstrations and opportunities for practice will vary from group to group, but the expectation that content will be implemented is a given.
Collaboration/Implementation

Research on the implementation of new learning reveals two consistent findings: much of the content of training is never implemented in classrooms, and successful implementations use the power of collaborative work as teachers negotiate changes in curriculum and instruction (Joyce & Showers, 1983). Thus, teachers working to implement changes in their classroom practice need the colleagueship of peers to solve the problems inherent in learning new behaviors and teaching them to their students. An implementation plan will need to provide a structure for teacher collaboration.

The implementation patterns also need to be monitored (more data collection!) so that schools can interpret student data (Are students responding as we predicted? Should we increase/decrease our use of certain strategies?) and provide feedback on their needs to trainers (see Guskey, 2000.)

The plan for collaboration includes time for teachers to meet on a regular basis and a structure for the tasks to be addressed during that time. A small (K-12) district in Iowa with three schools has stipulated that time for teacher collaboration will be provided as part of its staff development plan. The district has increased its staff development days for the year so that all teachers have time to learn new content. In addition, the district expectation is that all teachers will participate in small teams that meet weekly to plan and develop lessons and materials, problem solve difficulties encountered in their attempts to use their new strategies, and examine student data. To facilitate collaborative activity, the district has instituted a series of early release days. At the elementary school, teachers will meet weekly as grade level teams of three. At the middle school, collaborative teams will meet weekly in interdisciplinary teams. At the high school, collaborative teams will meet biweekly (on early release days) because teams are interdepartmental.

A leadership team comprised of teachers, AEA school improvement consultants, administrators and staff development support personnel have collected from K-12 teachers their estimates of optimal use of the new strategies, e.g., what is appropriate use at various grade levels and in various subjects. The leadership team has turned these data into a set of implementation guidelines to guide the collaborative teams in their planning. Collaborative teams thus plan their
use of the new strategies and document their use weekly using a structured form that they turn back to the leadership team following each meeting. The leadership team then provides feedback to the entire staff on what is being frequently implemented and what needs additional effort or attention.

A final note on teacher collaboration – it is important that opportunities for teachers to collaborate while learning new content and solving the problems necessary to get new content functioning in classrooms not be narrowly defined as “peer coaching.” Peer coaching in the minds of many is an evaluative or supervisory set of behaviors involving observations and feedback. In fact, the collaborative work of teachers, when the objective is implementing new content for the purpose of increasing student learning, is much more about thinking, planning, designing lessons, generating instructional materials and studying student responses to these efforts. Teacher collaboration primarily requires time and clarity of purpose; rarely does it require complex and/or lengthy training to enable teachers to work together professionally and productively. (See Showers & Joyce, 1996.)

**Ongoing Data Collection**

As they implement new curriculums and instructional strategies targeted at improving student learning in specific areas, schools need tools for collecting information about student responses to changes in the instructional program. The frequency with which these data are collected depends on the nature of the planned change. For example, changes in fluency are likely to occur more rapidly than the ability to address higher-order comprehension questions, and data collection points should be set accordingly.
Program Evaluation

While ongoing data collection (formative evaluation) entails frequent measurement of targeted outcomes and guides training decisions and program adjustments, program (summative) evaluation address the question “Does this intervention work?” Measures of program effectiveness generally occur at greater intervals—perhaps yearly—or on whatever schedule the district/school has established for taking stock of its progress toward student achievement goals. Regardless of how the program is evaluated, these data are used in the school’s decision-making as it plans next steps.

Ongoing Cycle

The cycle of planning and delivering training, organizing an implementation plan, studying data from implementation, and making decisions about how to refine the training and adjust collaborative structures is repeated many times as a professional development effort is implemented. The information gathered in studying implementation and as part of the formative evaluation informs the design of learning opportunities as well as the collaborative work of teachers. For example, formative evaluation data may suggest that teachers are not accurately using a newly learned strategy in their classrooms. These data are used by those planning the implementation to make adjustments such as increased opportunities to learn theory, more demonstrations, and more time for practice.

A Few Words About Context

The proposed professional development model focuses on the classroom – the transactions between teachers and students that enable students to maximize their own learning. Classrooms exist in the context of schools and districts and states and the policies that govern them. The efforts of learning communities to determine the needs of their students, study curriculums and teaching strategies that address those needs and implement them in classrooms require powerful leadership at all levels of the education enterprise and sufficient resources to support quality professional development. The evidence of increased student learning in successful school improvement and staff development programs suggests that the effort and resources are well spent.
REFERENCES


Calhoun, E. (2001). *Building capacity to support student achievement from the state department to the classroom and the classroom to the state department.* Paper presented at the Annual Meeting of the American Educational Research Association (Seattle, WA, April 10-14).


APPENDIX A

Teacher Quality Program
Professional Development Stakeholder Group

Facilitated by Deb Hansen and Bev Showers

1. Bruce Floyd AEA 1 Staff Development and Licensure Renewal
2. Sheryl Frascht AEA 2 Staff Development and Licensure Renewal
3. Brenda Hamilton AEA 3 Staff Development and Licensure Renewal
4. Barb Chambers AEA 4 & 12 Staff Development and Licensure Renewal
5. Kim Rost AEA 5 Staff Development and Licensure Renewal
6. Larry Erion AEA 6 Staff Development and Licensure Renewal
7. Nancy Lockett AEA 7 Staff Development and Licensure Renewal
8. Sara McInerny AEA 7 Special Education
9. Pam Johnson AEA 9 Staff Development and Licensure Renewal
10. Bonnie Boothroy AEA 10 Educational Services Director
11. Curt Jeffryes AEA 11 Staff Development and Licensure Renewal
12. Joan Crowl AEA 13 Staff Development and Licensure Renewal
13. Deb Etcheson AEA 14 Staff Development and Licensure Renewal
14. Linda Goode AEA 15 Staff Development and Licensure Renewal
15. John Rutenbeck AEA 16 Staff Development and Licensure Renewal
16. Judy Jeffrey Department of Education, Division Administrator
17. Dave Winans Iowa Board of Educational Examiners
18. Mary Beth Fracek Iowa Association of School Boards (Stakeholder member 01-02)
19. Susie Olesen Iowa Association of School Boards (Stakeholder member 02-03)
20. Dave Wilkinson Iowa State Education Association
21. Pam Armstrong Central Office
22. Tonya Urbatsch LEA Central Office and Iowa Staff Development Council
23. Ann Johnson School Administrators of Iowa
24. Elaine Smith-Bright School Administrators of Iowa
25. Vickie Trent University of Northern Iowa/National Board Certification Program
26. Neta Stevenson AEA 6 Special Education Directors
27. Linda Miller Department of Education Special Education
28. Jane Neff AEA 11- School Improvement
29. Rori Carson University of Northern Iowa
30. Gail Wortmann Teacher of the Year (Stakeholder member 01-02)
31. Jennifer Erbe Teacher of the Year (Stakeholder member 02-03)
32. Linda Lane Des Moines Public Schools
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Appendix B

School Improvement/Staff Development: Evaluating Current Plans

Amendments to perfect the Iowa Student Achievement and Teacher Quality legislation (HF 2549) encourage schools and local districts to evaluate current professional development practices and to consider whether professional development is aligned with district student achievement goals and is focused on research-based instructional strategies. The attached instrument was developed by Dr. Beverly Showers with input from the Iowa Teacher Quality Program Professional Development Stakeholder Group. This instrument is available to assist schools and local districts to conduct a self-evaluation of professional development practices.

In the summer of 2001, The National Staff Development Council (NSDC) published revised standards for staff development, placing improved student learning at the core of quality staff development programs. This change in focus represented a major shift in the organization’s focus. For many years the quality of professional development was judged by the satisfaction of participants rather than by the benefit to students.

During the same period, the state of Iowa passed Teacher Quality legislation which included new expectations for professional development in the state—specifically, that staff development serve the learning needs of students. With respect to professional development, the Teacher Quality legislation closely follows the NSDC standards for staff development.

Briefly, the NSDC standards fall into three categories: the context, process, and content of staff development, and activities in each of these areas is envisioned to occur concurrently rather than sequentially. Context standards address the culture of the school and school district, including norms for continuous growth and time for collaborative professional learning, administrative leadership, and the alignment of district and school goals for student achievement. The Process standards address the design of staff development - how will student data be analyzed to determine need, which content is most likely to impact the identified need, how will training and follow up be organized and implemented, and how will faculties be structured for the collaborative work of implementing new learning. The Content standards include subject matter content and teaching strategies, equity issues, and family involvement.

The following questions are designed to assist schools and districts to examine current staff development practices and to encourage discussion of ways to bring current practice more in line with state and national standards for quality staff development— staff development focused on the learning needs of students.

For additional information contact: Deb Hansen, Professional Development Consultant for Teacher Quality, Iowa Department of Education, deb.hansen@ed.state.ia.us.
The QIC-De cide tool may be useful to assist districts in using data to address many of the questions suggested in this document.

A. DATA/GOALS [process standard]
The LEA examined the following data to identify student need and to set priorities for school improvement and staff development.

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<th>Describe current LEA practices in writing:</th>
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**Discussion:** How did the LEA (as well as individual schools within the LEA) go about examining their own data? Did they look at data in addition to their ITBS scores? When LEAs/schools studied test scores, did they disaggregate data by gender, SES, ethnic groups, students with disabilities, etc.? Were disaggregated data communicated to and discussed with staff? Were implications of discrepancies in achievement explored? Did the district or its schools collect any additional data to clarify student needs? How confident are you that the LEA’s study of its student data identified a real student learning need?

B. FOCUS [context/process/content standards]
The LEA identified the following need(s) for improvement as part of the current CSIP process.

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**Discussion:** Is there a single focus or has the school listed multiple subjects/areas they intend to address during the current professional development cycle? Is the focus of school improvement in the area of curriculum and instruction? If no, how would you characterize the focus (e.g., improved climate, school/community relations, etc.)?
C. STAFF DEVELOPMENT [context/process/content standards]
The LEA planned the following staff development to support their school improvement focus.

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<th>Describe current LEA practices in writing:</th>
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**Discussion**: How does the planned staff development align with the CSIP focus? For example, if the school’s primary concern was literacy and the need to improve student reading and writing skills, is the planned staff development in the areas of reading and writing? How much time is allocated to staff development, and how much of that time is reserved for training (learning of new content)? Is continued follow-up or technical assistance planned to support initial training events? Will whole schools, grade levels, departments, etc., participate in the planned staff development or is participation voluntary? Are sufficient resources allocated to support in-depth training initiatives?

D. IMPLEMENTATION [process standard]
Please describe the LEA’s plan for implementing the planned change and describe how the planned change will look in classrooms.

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<th>Describe current LEA practices in writing:</th>
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**Discussion**: Does the LEA have a clear vision of what students will experience differently as a result of the school improvement/staff development plan? Can the LEA explain how it will know when implementation of the planned change has occurred? How will the district address schools and classes where implementation is lagging?
E. COLLABORATION [process standard]
Please describe the LEA’s plan for providing teachers time for collaboration as they work to implement the planned change.

Describe current LEA practices in writing:

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<th>Description</th>
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Discussion: Is adequate time provided for small groups of teachers to plan and develop lessons, to share their experiences and insights from early trials, to problem-solve difficulties with the implementation, etc.? Is a structure for use of the collaborative time provided to clarify intended use of time?

F. FORMATIVE EVALUATION [process standard]
Please describe the LEA’s plan for collecting data that will be used to determine additional training needs, student response to the planned change, and modifications needed in the initiative. (Formative data includes the information gathered on an ongoing basis to provide feedback to teachers about the efficacy of their efforts.)

Describe current LEA practices in writing:

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<th>Description</th>
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Discussion: Are data collection instruments aligned with the planned change? Is the schedule for collecting data appropriate for the type of change intended? Is there a plan for analyzing the data and providing feedback to teachers and administrators in a timely fashion?

G. PROGRAM EVALUATION [process/context standards]
Please describe the LEA’s program evaluation plan.

Describe current LEA practices in writing:

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Discussion: What data will be collected (e.g., pre/post tests, etc.) to determine if the planned change is having the intended effect? How will data be combined with implementation data to determine if student effects varied by implementation? How will data be disaggregated, shared, discussed? How will program evaluation data be used to plan the next cycle of school improvement/staff development? Does your program evaluation plan allow you to examine the cost effectiveness of your professional development program?
APPENDIX C

The Iowa Professional Development Model and QIC-Decide

The implementation of the Iowa Professional Development Model requires careful use of data throughout the process. The design of the model incorporates an action research process that includes multiple steps where data are collected, organized and analyzed to make decisions about professional development and school improvement. The QIC-Decide tool guides a process to assist educators in forming questions and using data to make decisions. QIC-Decide may be used to facilitate the action research approach that serves as the framework for the Iowa Professional Development Model. The four steps in QIC-Decide are:

- Question
- Information
- Collect
- Decide

Administrators and other practitioners trained in the QIC-Decide process may determine that QIC-Decide expedites their work in implementing the action research cycle outlined in the Iowa Professional Development Model. Examples of questions that might arise in the various steps of the Iowa Professional Development Model are listed below. Many of these questions will generate additional questions that can be addressed using the QIC-Decide process.

1. What does the CSIP data tell us about how all students in our district/building are performing in reading? … math? …science? How is each subgroup in our district performing in reading? … math? …science? What implications do these results have for instructional practice? For staff development? What additional student performance data do we need to determine a focus for professional development?

2. What focus area in curriculum and instruction has the greatest urgency for our students and their families?

3. Which scientifically research-based strategy is likely to close achievement gaps identified through the CSIP process? Is this strategy replicable in our district/building?

4. How will we know when implementation of the planned strategy has occurred? Is each teacher in our district/building implementing the strategy with fidelity? How many children in our district have experienced accurate application of the strategy in the classroom on a consistent basis? How will the district address schools and classes where implementation is lagging?
5. Is adequate time allotted for staff development to enable teachers to plan and discuss lessons?

6. How frequently are students experiencing the content of staff development?

7. What do the trend lines in student performance data suggest about the effectiveness of the staff development initiative?
APPENDIX D

No Child Left Behind Act
Definition of Scientifically Based Research

SCIENTIFICALLY BASED RESEARCH — The term ‘scientifically based research’ —
A. means research that involves the application of rigorous, systematic, and objective procedures to obtain reliable and valid knowledge relevant to education activities and programs; and
B. includes research that —
   i. employs systematic, empirical methods that draw on observation or experiment;
   ii. involves rigorous data analyses that are adequate to test the stated hypotheses and justify the general conclusions drawn;
   iii. relies on measurements or observational methods that provide reliable and valid data across evaluators and observers, across multiple measurements and observations, and across studies by the same or different investigators;
   iv. is evaluated using experimental or quasi-experimental designs in which individuals, entities, programs, or activities are assigned to different conditions and with appropriate controls to evaluate the effects of the condition of interest, with a preference for random-assignment experiments, or other designs to the extent that those designs contain within-condition or across-condition controls;
   v. ensures that experimental studies are presented in sufficient detail and clarity to allow for replication or, at a minimum, offer the opportunity to build systematically on their findings; and
   vi. has been accepted by a peer-reviewed journal or approved by a panel of independent experts through a comparably rigorous, objective, and scientific review.

Example:
Documentation of Structured Analysis for Selecting Scientifically Based Reading Research Instructional Strategies and Programs
(August 20, 2002)

Title of Study/Meta-analysis: _____________________________________________

Author(s): ____________________________________________________________

Source, Publication Date & Pages: _________________________________________

Is this source (journal or book) refereed? Yes ____ No ____ _____________ (SBRR Standard 4)

Reviewer(s): __________________________ Date Reviewed:______________________

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<th>Check Essential Reading Components Addressed</th>
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<th>Check Application</th>
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<td>Phonemic awareness</td>
<td>Instructional Strategy/Model</td>
<td>Classroom</td>
</tr>
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<td>Phonics</td>
<td>Program</td>
<td>Program</td>
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<tr>
<td>Fluency</td>
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<td>Vocabulary</td>
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<tr>
<td>Comprehension</td>
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Description of subjects: (May include # of participants, age, SES, etc.)

1. What is the name or title of the instructional strategy/model, program, material, or intervention and what was the research question to be answered and/or what is the intended goal?

Name/Title: ____________________________________________________________
2. Describe the strategy/model, program, material, or intervention:

3. Was the program effectiveness shown through an experimental design that included experimental and control groups created through random assignment or carefully matched comparison groups? (SBRR Standard 1)

   Yes _____ No_____ If yes, briefly describe.

4. What instruments were used to collect data and what metric(s) (effect size, raw scores, gain scores, etc.) was used to report results? (SBRR Standard 2)

5. Briefly describe the findings. (SBRR Standard 2)

6. Did the evaluation plan include a measure of implementation? (SBRR Standard 3)

   Yes _____ No_____ If yes, briefly describe.
7. Did the study include evidence that gains in student reading achievement were sustained over time? (*SBRR Standard 3*)

     Yes _____  No _____  If yes, briefly describe.

8. Did the study cite evidence of replication (of another study or within this study)? (*SBRR Standard 3*)

     Yes _____  No _____  If yes, briefly describe.

9. Additional comments:

If the article or report doesn’t provide the information needed to answer the questions above, you should call or email the author. It is not uncommon for publishers to drastically cut essential information out of articles before publishing them.
RESEARCH-BASED CONTENT REVIEW

Identify and obtain a study of a successful intervention in reading, math or science. Review the study (using the process we have practiced in this group) and fill out the form below.

You will briefly review the study for the entire group and we will begin our file of worthwhile content. (Although the focus of our capacity-building activity in the coming months will be in the areas of reading, math and science, please make note of worthwhile content in other areas as you run across it so that we can begin a bibliography of other possibilities for other content areas.)

Title of study: ___________________________________________________________

Author(s): ______________________________________________________________

Content area: ___________________________ For what age group? _____

Intervention/treatment: ________________________________

_______________________________________________________________________

_______________________________________________________________________

_______________________________________________________________________

Results (including effect sizes, if available) ______________________________

_______________________________________________________________________

_______________________________________________________________________

_______________________________________________________________________

On a scale of 1-10 (with 1 being low and 10 being high), how would you rate the quality of this study? ____ Please comment on your reasons for the rating.

_______________________________________________________________________

_______________________________________________________________________

In a given curriculum area (e.g., reading, math, science), searches for information about what is effective often yield an overload of information. If working on the Internet, in ERIC or your local library, a search usually results in hundreds of articles that include descriptions of curriculums, instructional programs, advocacy for specific programs, and research on specific programs. To identify articles that report research, scan the end of the descriptions or abstracts for reports of effects on students.
Once you have identified and read a research report, ask yourself the following questions:

1) What is the treatment or intervention supposed to accomplish?

2) What is the intervention? Is it fully described?

3) What results are reported? What metric is used to report results? What instruments are used to collect data?

   [If means and standard deviations are reported for a treatment and control group, you can compute the effect size:

   \[
   \frac{\text{Mean of experimental group} - \text{Mean of control}}{\text{Standard Deviation of control group}} = \text{Effect Size}
   \]

4) Did the evaluation plan include a measure of implementation?

5) Was the study replicated?

6) How confident are you that the results are genuine?
APPENDIX E

National Staff Development Council’s Standards for Staff Development: Revised Edition (2001)

Context Standards:

**Learning Communities**: Staff development that improves the learning of all students organizes adults into learning communities whose goals are aligned with those of the school and district.

**Leadership**: Staff development that improves the learning of all students requires skillful school and district leaders who guide continuous instructional improvement.

**Resources**: Staff development that improves the learning of all students requires resources to support adult learning and collaboration.

Process Standards:

**Data-driven**: Staff development that improves the learning of all students uses disaggregated student data to determine adult learning priorities, monitor progress, and help sustain continuous improvement.

**Evaluation**: Staff development that improves the learning of all students uses multiple sources of information to guide improvement and demonstrate its impact.

**Design**: Staff development that improves the learning of all students uses learning strategies appropriate to the intended goal.

**Research-based**: Staff development that improves the learning of all students prepares educators to apply research to decision making.

**Learning**: Staff development that improves the learning of all students applies knowledge about human learning and change.

**Collaboration**: Staff development that improves the learning of all students provides educators with the knowledge and skills to collaborate.
Content Standards:

**Equity:** Staff development that improves the learning of all students prepares educators to understand and appreciate all students, create safe, orderly, and supportive learning environments, and hold high expectations for their academic achievement.

**Quality teaching:** Staff development that improves the learning of all students deepens educators’ content knowledge, provides them with research-based instructional strategies to assist students in meeting rigorous academic standards, and prepares them to appropriately use various types of classroom assessments.

**Family involvement:** Staff development that improves the learning of all students provides educators with knowledge and skills to involve families and other stakeholders appropriately.

Iowa Teacher Quality Program

Professional Development Standards

Quality professional development:

- aligns with the Iowa Teaching Standards.
- delivers professional development that is targeted at instructional improvement and designed with the following components:
  - student achievement data and analysis,
  - theory,
  - classroom demonstration and practice,
  - observation and reflection, and
  - peer coaching
- includes an evaluation component that documents the improvement in instructional practice and the effect on student learning.
- supports the career development needs of individual teachers.
- integrates the instructional application of technology.
- focuses on research-based instructional strategies aligned with the school district’s student achievement needs and the long-range and annual improvement goals established by the district.
Similarities Between National Staff Development Council Standards and the Iowa Professional Development Standards

There are several basic principles on which the Teacher Quality Program is based. These principles closely align with the standards established by the National Staff Development Council. The National Staff Development Council Standards and the standards established in the Iowa Teacher Quality Program:

- emphasize quality professional development;
- clearly target increased student achievement;
- focus on research-based practice;
- place a priority on instructional strategies;
- stress collaboration (e.g., the Iowa Teacher Quality Program emphasis on the collective work on district goals);
- emphasize continuous improvement (e.g., the Iowa Teacher Quality Program links professional development to evaluation and career paths);
- are data driven (e.g., the Iowa Teacher Quality Plan is driven by the Comprehensive School Improvement Plan and the data that establishes the instructional priority);
- call for equity and meeting the needs of all students; and
- emphasize evaluation

Comparison developed by the Iowa Affiliate of the National Staff Development Council