Research can improve practice

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The phrase *research-based* has become a buzzword in education. Yet, what does that phrase really mean? Understanding this term has become especially important since No Child Left Behind was passed because it requires using research-based or evidence-based practices in instruction and professional development. Implementing practices that have evidence of being successful increases the potential for their success. Since resources are limited, learning about successful practices will help ensure that educators use those limited resources wisely.

Research means inquiry or in-depth study using established and rigorous processes to make discoveries through experimentation or investigation, add to the knowledge base, identify or confirm theories, laws, or conclusions, or confirm, clarify, or identify facts. Research ranges along a continuum of collected information to original research.

Some refer to information gathering as research. However, this is not research in the scientific sense. This form of research involves collecting ideas and summarizing or synthesizing them. It misses, however, a crucial aspect of scientific research, interpreting the data to answer an identified question or solve an identified problem.

There are multiple ways of describing

> **RESEARCH-BASED**
> Staff development
> that improves the
> learning of all students
> prepares educators to
> apply research to
> decision making.

research. Most common are qualitative and quantitative, basic and applied, and experimental and non-experimental. Some believe that the most rigorous form of research is the experimental study. Experimental studies are designed to demonstrate a causal interaction among variables by manipulating some variables for some (treatment group) and not for others (non-treatment group). However, disagreement exists among researchers themselves about what kind of research is best and what type of research is best in education. Regardless of which approach one prefers or assumes to be better, research has some essential features that information gathering, summarizing, or synthesizing do not.

These features include:

- Beginning with a problem or question;
- Following a rigorous and prescribed scientific inquiry process or methodology;
- Collecting, analyzing, and interpreting data;
- Permitting critical review from peers and experts in the field; and
- Adhering to standards of the field.

Most teacher leaders or coaches, unless enrolled in graduate school programs or conducting action research, do not conduct research. Rather, they use research to inform their practice. To that end, they must know how to access research, read and analyze it, and create a
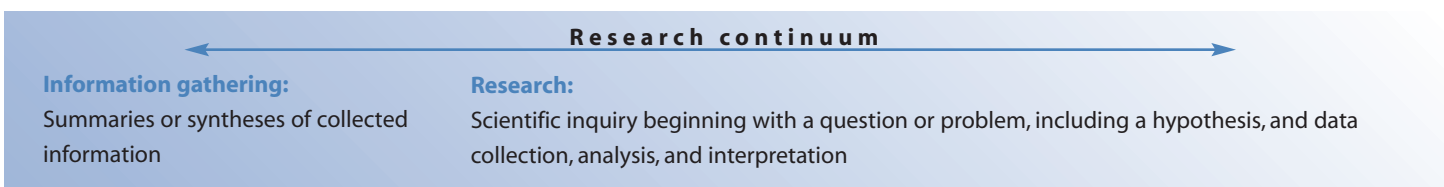
**For more
information about
NSDC's Standards
for Staff
Development, see
www.nsdc.org/
standards/
index.cfm**

Research continuum

Information gathering:
Summaries or syntheses of collected information

Research:
Scientific inquiry beginning with a question or problem, including a hypothesis, and data collection, analysis, and interpretation

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research-minded orientation within the teams in which they work.

Research-minded

Many teachers claim to have research phobias. They don't believe they have the expertise to review research. They also report not having easy access to research or time to read or relate research to their practice. If teachers enjoy reading and analyzing research, they report having difficulty keeping up with the volume of research in education.

Teacher leaders and coaches can benefit from becoming research-minded or research literate. To understand more fully what they experience in their work, to make decisions, and to improve practice, research is helpful. To use research, teacher leaders will want to understand research and learn how to read, analyze, and apply it to their work. They stay abreast of research trends and share those trends with their colleagues.

Teacher leaders and coaches can help their colleagues use research to make better decisions, improve their practices, and make schoolwide improvements. They can facilitate review of research by teams of their colleagues including school improvement teams, study teams, or department or grade-level teams. They can organize reviews in some of these ways:

• Each team member reads and summarizes one article for the team and makes a brief presentation to the team on the article.

• Team members read the same article reporting on research related to their content area, students, or discipline and discuss the implications for their practice.

• Team members read research abstracts and determine which articles merit more in-depth reading.

• Team members read a variety of different research studies on one topic that the team is interested in studying in depth.

When educators use research to make informed decisions about their work, they will exhibit responsibility with their limited resources, and increase the efficiency and effectiveness of their work. ◆