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Leaders help teachers to define research

Frequently, teacher leaders feel uncomfortable accessing and using research and are less certain about recognizing effective research, yet they have a responsibility for helping teachers understand and use research to inform decisions they make about their practice. They help teachers:

- Distinguish research from opinion or best practice;
- Recognize the elements of effective research; and
- Conduct action research.

Teacher leaders can assist their colleagues in determining what is research and what isn't.

Frequently, teachers perceive that what they hear or read is research because it appears in a professional journal, is recommended by an expert, or is offered in a workshop. Formal research is a structured study using specific designs driven by the rigor of scientific investigation. Most research is published in scholarly, peer-reviewed journals such as *American Educational Research Association Journal*. Research is also summarized or reviewed in journals such as the *Review of Educational Research*. Teachers typically do not have easy access to these journals, nor do they often read original research.

However, when critical decisions are being made related to teaching and learning, articles and journals presenting original research are useful. Teacher leaders may also make abstracts of research related to key school initiatives under consideration or in use available to their colleagues. Teacher leaders can assist their colleagues to distinguish among research, perspective, recommendation, opinion, and best practice.

Effective research has a number of elements that distinguish it from best practice. It first includes a rigorous study guided by a research

question and uses an accepted design for structuring the study.

Teachers today hear a great deal about scientifically-based research. The federal government has established parameters for scientifically-based research that include quasi-experimental and experimental design. **Experimental research** uses random assignment of participants to either a treatment or non-treatment group in order to compare the impact of the treatment or intervention. **Quasi-experimental research** does not include random assignment of participants although it compares the results of treatment in one group to another group that did not have the treatment. Other forms of accepted research,

although not defined as scientifically-based by the U.S.

Department of Education, include **qualitative research** that includes the study of a specific group or groups of subjects. In qualitative research, the research studies one or more groups and does not compare results with non-treatment groups. The hallmark of all

research is its adherence to the scientific process and strict guidelines established to ensure that the results are sound.

Best practice, on the other hand, is often a practice that is producing results and has not been subjected to rigorous research or evaluation. The results from one site are not easily generalized to another group because the scientific process or the use of comparison with treatment and non-treatment has not occurred. Best practice, in essence, is what works in one school or district and may have the potential to work in another. Research, on the other hand, permits some degree of certainty that the intervention has a strong likelihood of working in another setting. So even though an article about a particular teaching practice appears in *Mathematics Teacher*, *Reading*, *Science Teacher*, etc., it may

RESEARCH-BASED

Staff development that improves the learning of all students prepares educators to apply research to decision making.

For more information about the NSDC Standards for Staff Development, see www.nsd.org/standards/index.cfm

not be research. It may be the description of a practice that worked in one school or district.

Another way a teacher leader can assist teachers is to help them engage in action research. **Action research** is practitioner's research. When teachers engage in action research, they follow a scientific process to conduct a study within their own classroom or school. In simple terms, they ask a probing question about their own practice such as what reading instructional strategies improve the reading performance of below-level young adolescent male readers.

Teachers then collect data from their own classroom work, look for patterns and trends within their data, and draw conclusions from their data. Often, they share their results with other teachers and use them to inform their own classroom practice. Using research to provide

Resources for research-based practices

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- U.S. Department of Education What Works Clearinghouse www.whatworks.ed.gov/

background knowledge, deepen teachers' understanding about the potential for success of a particular practice, and to inform crucial decisions is essential to ensure that teachers' classroom and other schoolwide decisions will have a strong likelihood of producing the results expected. Taking a gamble on unproven practices is a decision not to be made lightly. ♦

A teacher leader can help teachers to engage in action research, following a scientific process to conduct a study within their own classrooms or schools.

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