

## **Using Research to Assess**

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## **Abstract**

### **Using Research to Assess**

Assessing students and teachers in various ways, in order to gain detailed and comprehensive information to make broad-based decisions and appropriate changes, is vital to teaching and learning. Substantive changes in teaching and learning are often realized, as a result of such a comprehensive approach to teacher and student analyses. Furthermore, valid assessments and instructional procedures can offer valuable information about student needs, when instructional goals are clearly articulated and the purpose of the instructional practices are specifically aligned with priority outcomes (Herman, Aschbacher, & Winter, 1992). Moreover, the teacher-researcher or practitioner should have the opportunity to assess, develop, and improve practices, while contributing to the educational body of knowledge through research and development.

### **Using Research to Assess**

As quoted from *Thriving on Chaos*, “what gets measured gets done” (Schmoker, 1999, p. 35). This phrase is often relayed to mean that, once a number (data) is paralleled with a plan, actions result. Perhaps continuous school improvement can be realized, once a concerted emphasis is placed upon a measured area and a directional focus is developed, supported and implemented. The entire entity of stakeholders: the community, students, teachers, parents, and school officials desire to know where the directional focus should be placed and how to best educate our student population. As a result of the “change now” agendas and programs that are in place to direct change, each entity is expected to make progress toward federal,

state, and local goals, as prescribed by the current No Child Left Behind legislation. Perhaps those at the forefront of this procession toward change and constant development, the teachers, could use their teaching experiences and expertise to support change and improvement. Moreover, in order to support substantive changes, there is a need for the teachers' instructional procedures and assessment outcomes to be valid. Measures of validity in these areas can only be significantly contributory, when assessment and instructional procedures are driven by each other and "good assessment is matched to the intended learning outcomes (the knowledge, skills, and dispositions identified/matched to initial goals)" (Herman, Aschbacher & Winters, 1992, p. 33). In short, does the instruction match the goals and objectives and do the assessment outcomes accurately represent what students know and understand?

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Moreover, "demonstrating that an assessment is valid for a purpose requires gathering specific data, in order to show the relationship between the results of the assessment and the instructional objectives" (Herman, Aschbacher, & Winters, 1992, p. 105).

The information gained from the assessments should drive the instructional procedures and those procedures should direct the assessments. The information gained from the assessments, often the level of achievement, is usually the underlying reason for making deliberate and purposeful changes to the classroom instructional procedures. These changes are often characterized by: 1) investigating student needs, 2) developing plans to collect the data resulting from those actions taken, and 3) stakeholder involvement; analyzing and sharing the outcomes to direct appropriate changes.

Gathering specific data, creating significantly appropriate instructional practices and assessment instruments are important to establishing the intended purpose of instruction, when correlating student accomplishment of objectives and the desired levels of achievement. Recognizing desired outcomes, while investigating

student needs can involve many facets. In order to accurately address student needs, those instruments used to ascertain those needs, the validity of instruction, and teacher learning should be investigated.

Since good instructional and assessment practices examine the processes and the products of learning, the influences of each should offer detailed information about student needs. Herman, Aschacher and Winters, in *A Practical Guide to Alternative Assessment*, suggested that being able to use the results of

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assessments to investigate student needs are an integral part of the integration of instruction and assessment. In support of the previous, it is important that the learning process is 1- active, 2- holistic in academic approach, 3- driven in pace by the needs of the classroom, 4- supportive of metacognition, 5- promoting learning with depth of information, instead of breath of information, and 6- actively connecting content/process with the real-world and the learner's background (Herman, Aschbacher, & Winters, 1992).

Good assessment and instructional development can further offer valuable information about student needs, when instructional goals are clearly articulated and the purpose of the instructional practice is specifically aligned with priority outcomes and/or goals and objectives (Herman, Aschbacher, & Winters). Selecting, specifying, and implementing criteria for knowledge acquisition and grading can both make the process fair to all students and understandable to all involved stakeholders.

The teachers should support their level of understanding about what is going on with their teaching and student learning, by investigating their own practices or teacher learning. Whether making adjustments through monitoring, pedagogical reasoning, or deliberate inquiry processing, learning from one's own practices is necessary and irreplaceable. Likewise, teachers can institute information gained from peer interaction and professional development, which is an inclusive and teacher-

directed approach to teaching.

Educators are often asked to meet the needs of their students by using a prescribed, less teacher-directed approach to instructing without any rhyme or reason

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being specifically offered for the procedures undertaken. Richard Sagor, in *Guiding School Improvement with Action Research* suggested that “the tyranny of central tendency arises when it is inferred that every individual in a population ought to be expected to perform as an average member of that population” (2000, p. 38). Hence, children are often taught using a holistically prescribed and generalized curriculum that is governed by even more prescribed expectations and less teacher directed information. Moreover, overall policy decisions, instructional decisions, and day-to-day instruction are very often governed by “outsiders” and the tyranny of central tendency. It becomes very important, therefore, to move beyond the tyranny of central tendency and generalized approaches to teaching, in order to support diversity in instructional techniques that are appropriate for every learner. In order to achieve such diversity, competent teachers need to be armed with data that they can use to make the pursuit of continuous improvement a part of everyday school life, instead of being totally beholden to routine practices (Sagor, 2000). In short, teaching needs to become a pursuit of continuous teacher learning. This pursuit supports that educators should be expected to have the ability to attack non-routine problems, research apparent needs and to do so creatively and with probable collaboration. The outcomes of such purposeful research can produce educational knowledge that can move teaching, learning and the educational profession forward. Likewise, if the teachers are competent, confident, and active researchers, all the stakeholders can benefit from the shared learning and research experience. Research or, more specifically, action

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research can contribute to and improve the knowledge, practice, development of teaching, student learning, and educational policy development . Moreover, it all involves the ethical commitment to improving education (Arhar, Holly, & Kasten, 2001). Similarly, Sagor defined action research as "a disciplined process of inquiry that is conducted by and for those taking the action" (2000, p. 3). These actions should serve to improve teaching and learning.

The devotion to improving teaching, learning, and educational practices has been most recently put on center stage by the No Child Left Behind (NCLB) legislation. Dr. Roderick R. Paige, U.S. Education Secretary, supports the legislation as a plan to strengthen schools and improve achievement. "It is time to stop funding failure and promoting a culture of compliance and start building a culture of achievement and accountability in our education system" (Nussle, 2001, p.4). As developed from a U.S. Department of Education Conference, the NCLB legislation offers several key strategies for improving teacher quality and accountability in regard to professional development in the educational system (Nussle). Specifically, the legislation references the need for schools to use data to make decisions about the content and type of activities to involve teachers, while basing activities on research-validated practices, support using data and/or research to move toward heightened teacher quality and accountability (Nussle).

While supporting the focus of quality and accountability, in order to improve teaching actions and learning, the practitioner should have the opportunity to assess, develop, improve practices, and contribute to the educational body of

knowledge through research and development. Therefore, the research or action research should be intentionally and systematically conducted.

These experiences with action research, will be a means for teachers to become more reflective and more engaged in educational improvements

(Best & Kahn, 1998). Furthermore, the underlying purposes for engaging in action researches are often to 1) make progress on student learning needs, 2) build the reflective, practitioner and 3) to build upon shared learning cultures (Sagor, 2000). Likewise, teachers can be further helped through more school support of common goals or foci. In short, making progress on class and school-wide priorities can strengthen the total learning community. When educators collaboratively study their practices; it will not only contribute to the achievement of the shared goals but will have a powerful impact on team building and instructional development (Sagor, 2000). In short, when teachers focus their time, energy, and creativity on common goals, enthusiastic support of action research and progress on learning priorities can likely result.

Making progress and surpassing the planned goals of a team can often be challenging. Researching, through data collection and instituting new plans of action can be a way to transform the educational work environment, the community, the classroom, and governmental agencies into shared-learning communities, while still making progress on individual classroom needs. As a result, perhaps it will become commonplace for teachers to passionately share investigations and outcomes, while soliciting support and involvement. Likewise, once what is learned is shared with the

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entire learning and educational community, what is phrased by Peter Senge (1990) as “team learning” can result. The key advantage of team learning is the outcome that all of the educational community can receive shared information that can contribute to organizational learning and growth.

When practitioners’ research and their wisdom are used, the outcomes can significantly influence decisions and instructional policies. Those new decisions and actions can be deemed to be more valid and meaningful, since they are derived from the professionals doing the work. “With the exploding knowledge base of teaching

and learning and the heightened demands on teachers to help all children achieve mastery of meaningful objectives, the inadequacy of the blue-collar model (routine, hierarchical directed, non-complex, non-creative) for teaching is becoming much clearer” (Sagor, p. 9). In short, the knowledge and wisdom that informs practice and supports the professional environment of teaching tends to produce an emergence of more meaningful professional growth and development.

One example of such a professional environment of team teaching and/or collaboration has been documented by Mike Schmoker in *Results: The Key to Continuous School Improvement* (1999). The research was gathered from an elementary school in Manhattan, Kansas. Huge gains in 4th and 6th grade reading scores on district achievement tests were realized. Scores rose from 59 to 100 percent and from 41 to 97 percent, respectively. Similarly, the 4th grade math scores rose from 70 to 100 percent and 6th grade scores rose from 31 to 97 percent. The research relayed that the supportive principal arranged his teachers into teams and mandated

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that they met regularly to analyze scores, identify strengths and weaknesses, and develop ways to effectively address the instructional concerns. As a result, advancements were routinely experienced, due to the probable collegial effort put toward solving challenges. “Effective teamwork that leads to results is a discipline can require a scientific disposition and collaboration. Such collaboration is often characterized by ‘thoughtful, explicit examination of practices and their consequences’” (Schmoker, 1999, p. 16).

The advancements that can be made through collaboration and professional development can heighten teacher motivation and efficacy, as well. Action research can serve as the bridge between the two, in order to further support heighten teacher motivation and efficacy. If the question of whether teachers are making a difference can be affirmed and directed by the practitioners, the teacher-directed research and

development can be evidenced more often. Evidence has shown that teachers who integrate research data into their instructional plans, while planning for improvement, often take more pride in their work and are more enthusiastically involved in the advancement of educational development, as they include other stakeholders more readily in the process. They, therefore, do not feel that they are under the rule of others but are in control of improving and directing educational development. Moreover, achieving more student success can mean that teachers need to vigorously attack the data to better position themselves and their students for increased achievement and future success.

Valuable improvements may only be enduring if the practitioners are

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purposeful in their efforts of experimentation, inquiry, and dialogue, however. The power of action research inquiry may be realized through the outcomes of professional practice, as teachers make changes to reduce the challenges of the classroom, by increasing instructional and student successes. Therefore, developing plans of action to support the needs of the students is synonymous with purposeful teacher inquiry. It initially involves identifying a specific problem, challenge, or interest, before planning begins. Secondly, the practitioner should become informed through research analysis, policy review, or a review of background information about students. Furthermore, the practitioner, through brainstorming plans and strategies, can now be positioned to take action through observing and/or collecting data. In short, the practitioner can implement strategies, in order to collect desired information. Thirdly, the practitioner can analyze the collected information, reflect upon the results and the process, articulate/share results, and continue with inquiry (Martin-Kniep, 2000). Thus, planning, implementation, analysis, and reflection are the components of good action research. As a result of the continuous efforts made for improvement, a cycle of continuous growth can result. The practitioner who

makes plans, based on the reflection of practices, and implements a new action(s), observes, reflects, and begins a new plan is working within this significant, continuous cycle of probable change (Royer, 2002). Continuous change and practitioner research in the educational environment is an inevitable part of the growth process, regardless of any probable hindrances with the cycle of change and growth.

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Gilbert and Smith (2003) performed a study that investigated hindrances or "bumps" and how they affected teachers and their research plight. The researchers identified several hindrances from their research findings. Possessing an appropriate level of knowledge and skills was identified as a hindrance. The teachers in the study relayed that having little knowledge of what action research was to resemble and little knowledge about using data and data-collecting tools was a concern. Secondly, time was listed as a significant bump in the road to practitioner research engagement. The teachers believed that classroom research is incompatible with the regular demands of the classroom. The sacred resource of time was deemed as already insufficient and to become even scarcer, if more was asked of them. Likewise, being systematic and purposeful, during the processes involved in data collection, was reported as being out of reach and/or difficult. The next hindrance, spiraling effects, constantly requires that teachers rethink and question their practices. The sense of never being finished is one that many teachers found overwhelming. Similarly, sharing those findings after constantly reflecting and rethinking practices was deemed to be a hindrance. The aspect of sharing was reported to often receive negative connotations and deemed a separate hindrance, due to the overlooked and avoided information. Moreover, the unexplained, unexpected events or outcomes of research cannot only go unshared but underdeveloped and unused by practitioners. Gilbert and Smith (2003) reported that, in spite of the hindrances or "bumps" in the road to action research engagement,

teachers should balance the needs of their students with the valuable information that can be gained from action research. Classroom inquiry and reform should be

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commonplace in the classroom and moving beyond actual or perceived hindrances can yield countless advantages to teaching and learning. “When teachers view good teaching as good research... they will see how creating new knowledge that empowers them and their learners can be beneficial” (Gilbert & Smith, 2003, p. 80).

Purposeful, navigated teaching, learning, and researching can be powerful dimensions of teaching, teacher development, and student learning. The underlying basis for this purposeful teaching is often deemed to be supported or even led by inquiry. Educators and educational programs have become increasingly committed to inquiry-driven teaching and/or intentional inquiry carried-out by teachers (Chandler-Olcott, 2002). The attention and support given to practitioner research in educational programs and by the professional literature is not to suggest that it is a new tradition. Instead, the significant upswing can be attributed to the need to address accountability issues; the call for professionals and the licensure programs teaching them to fill the perceived gap between what students learn in courses and how they tackle the realities of the classroom (Chandler-Olcott).

Chandler-Olcott completed a case study that addressed similar factors: 1) factors that allow for school-wide research to sustain itself, 2) the roles played by a university-based member with a school-based research group, and 3) research members' pursuit of inquiry in their classrooms and how it affected their teaching. The four elementary (K-5) schools that participated in the study relayed that principals need to put permanent structures in place to provide teacher-researchers sustained time to use inquiry, to collaborate, and to construct an understanding about

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their practices. Secondly, even though practitioners are the best judges of what level

of inquiry particular topics need in their classroom, they will at some point need a person to help them outgrow their current capabilities. For example, they may need help organizing and/or constructing a study, analyzing and/or collecting data, or identifying valid research strategies. As taken from Feldman and Atkin, if academicians encourage teachers to do action research, they need to have more models that accommodate the needs of everyday teaching (Commission on Behavioral and Social Sciences, 2000). The study also concluded that many administrators would like to direct the teachers' research, by asking them to only consider a single strategy: ways to improve standardized test scores. Likewise, although teacher-selected topics are very helpful, many teachers prefer mandated administrator-driven topics. Perhaps..." giving teachers some choices and autonomy represents more than a way to increase engagement; it also represents a way to increase the probability that insights, growth and development from their work will transfer to other contexts" (Chandler-Olcott, p.8). The contexts of improved student learning, teacher collaboration, research, and reflection are only a few of the potential extensions of teacher research and development, regardless of who selects the research focus.

Educational researchers have found that the extensions of action research positively promote skills of inquiry, reflection, and problem solving (Rock & Levin, 2002). This type of action research promotion is often used in teacher education programs. Programs like the graduate program at Union University actively promote

skills of inquiry and reflection in teachers. The activities developed within the coursework further supports systematic, intentional inquiry by teachers. For example, the graduate students constructed a Continuous School Improvement Plan and/or Class Improvement Plan (CSIM/CCIM) in an introductory research course. Their CSIP/CCIP was based on a need that they identified in their school environments or

classrooms. Their plans were developed and based on a need relayed through data analyses. The plan was founded in their desire to change an undesirable trend found in the data. The graduate students were expected to develop these improvement plans with the goal of actually implementing them in their schools. Thereafter, the question that arose was: how many students actually incorporated their plans into their school environments? A sample 130 past graduate students that had been enrolled from 2000 to 2003 were questioned. Forty-two percent of the students responded to the questionnaire. Remarkably, 90% of the respondents relayed that they had either incorporated their improvement plans completely or in part in their school environments. Fifty-one percent of the respondents also relayed that their administrators expected them to lead and/or develop supporting projects or areas of need, now that they had shown their talents and areas of expertise. Thirty percent of the students found themselves in administrative roles or performing out-of-the-classroom duties and were very happy to have had the opportunity to build a plan of need that they could immediately implement in their schools. Likewise, those having supportive administrators who supported teacher-developed plans seemed to have had the greatest success in implementing their CSIP and CCIP. Thus, it was of little

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surprise to find out that 85% of the respondents believed that they had very supportive administrators. In addition, 60% of the respondents relayed that their current actions and future plans were conducive of making continuous amendments or adjustments to their plans, in order to insure appropriate incorporation to meet the needs of the students and schools.

The task of higher education professionals cannot only be to do the same internal reviews of the courses taught but to strengthen and support the endeavors of all educators. Furthermore, as teachers strive to improve student learning and support the needs of education, higher education professionals can perhaps serve the

educational communities by actively supporting and making themselves available to the teachers. As the teachers strive to experience more of the best of instructional experiences, perhaps the challenges of teaching and learning can be eased through teacher-directed examinations of their teaching effectiveness. Instead of being beholden to routine, externally driven practices, a professional pursuit that supports creativity, problem solving, and continuous improvement procedures can be more widely supported and instituted where it does not exist. Moreover, the professional pursuit of action research is the research that teachers do to investigate their own professional, proactive attempts to understand and improve teaching, while learning to develop a stronger voice when communicating about it (Rock & Levin, 2002).

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