

Practices and Tools for Meeting Needs of Today's Learner

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More than twenty-five years after the National Commission on Excellence in Education's report *A Nation-At-Risk* (1983) cast a bright light on the predicament of public education in the United States and after two major federal legislative acts (NCLB, 2001 and IDEA, 2004), school leaders are still searching for "transformative" strategies and tools to achieve the quality learning opportunities needed for all children within our nation's schools. In addition, the geometric expansion of knowledge and technology over this same period has been nothing less than extraordinary. In his keynote address at the Connected Learning Community Technology Summit, Bill Gates (2001) stressed that 21st century classrooms must be rich in content, collaboration, and technology. In light of the rapidly expanding content and evolving technologies, Gates challenged educators to seize the power and flexibility of computers to "transform the learning experience for every child."

Ringling through the past two and a half decades, this clarion call is heeded within the walls of far too few schools. In many cases, the organizational structure, conventions of professional development, and instructional strategies and tools still mirror the look and feel of those aspects of schools in the 1950s. Yet, students are becoming more diverse and the need for them to acquire a new set of skills for learning and working in the 21st century intensifies almost daily. To meet these needs, educators must instill innovative professional practices for planning, collaboration, individualization, instructional delivery, and technology use. Moreover, these innovations will require substantial new investments in professional development to have significant impact on student performance and learning.

This issue of the *Journal of Curriculum and Instruction* examines several aspects of these challenges facing educators. Results and information from the included articles bring forth practical solutions and additional questions for teachers as they collaborate, plan, use multimedia technologies, and engage in high-quality professional development.

Collaboration and Co-Teaching

In the invited guest article, "Co-teaching: A simple solution that isn't simple after all," Marilyn Friend examines the influence of NCLB (2001) and IDEA (2004) in positioning a specific form of collaboration, co-teaching, as a service delivery option for supporting the access of students with disabilities to the same curriculum as their peers without disabilities in general education settings. After a brief overview of the central characteristics of co-teaching, she discusses several of the challenges that co-teachers encounter. Her review will help educators implementing co-teaching for the first time to

recognize both its potential and pitfalls. For those veterans engaged in co-teaching, it provides the opportunity to reflect on their practices and how they might be improved. Co-teaching partnerships are one way to address the NCLB requirement that all students must be taught by highly qualified teachers while also providing effective instructional and behavioral supports that can result in students with disabilities reaching high standards of academic achievement. Friend suggests that co-teaching has moved beyond an interesting collaborative approach to a prominent way for educating students with disabilities included in general education settings. She suggests that collaboration is not an easy endeavor, requiring strong commitments by teachers and administrators. In addition, Friend points to an emerging research base identifying two primary areas of expertise to special and general educators, respectively. Special educators focus on the process of learning with an eye on the individual needs of students, mastery learning, and paperwork responsibilities. On the other hand, general educators bring a deep knowledge of the content and pedagogy for the large group setting, learning and behavioral processes of the students, and pacing of curriculum instruction.

Although logic suggests that roles of the general and special educators can be delineated, research indicates that the complexity of co-teaching relationships is laden with challenges. For example, in their review of 32 qualitative studies, Scruggs, Mastropieri, and McDuffie (2007) found generally positive views among special and general educators toward co-teaching. However, the study also indicated there was a need for a wider range of support for co-teaching to be effective, particularly in light of the fact that the most common forms of co-teaching relegate special educators to the role of teaching assistants. Friend also points to the equivocal findings of the effect of co-teaching on academic achievement (Mastropieri et al., 2005), raising questions as to what conditions promote effective co-teaching partnerships and processes that result in improved academic success for students with disabilities in general education settings.

In the remainder of the article, Friend outlines a set of key issues affecting co-teaching and practical solutions to foster success related to (a) establishing planning time, (b) building effective co-teaching relationships, (c) outlining clear roles and responsibilities, and (d) establishing administrative support. Of these four areas, Friend draws attention to planning time as a universal need across virtually all school districts, whether urban, suburban, rural, small, or large.

The need for more planning time for co-teachers is underscored by Lusk, Thompson, and Daane in their study titled, "Algebra I teachers' perceptions of teaching students with learning disabilities." They examined 63 Algebra I high school teachers' perceptions of students with learning disabilities (LD) and background factors that might contribute to these perceptions. These factors include (a) years of teaching experience, (b) number of college courses taken that addressed teaching students with LD, (c) number of workshops attended that addressed teaching students with LD, (d) number of students with LD in the classroom, (e) highest degree earned, and (f) amount of collaboration with a special education teacher. Even though lack of planning time was noted as a problem, 90% of the respondents were still comfortable collaborating with

special educators, with the most positive responses coming from teachers in co-teaching experiences.

As the co-teaching trend continues to grow, so does the need for greater examination of the promise and challenges facing teachers employing this service delivery option. Clearly, educators must find alternatives for more planning time and effective logistical or programmatic processes to realize significant benefits of co-teaching as an effective delivery model.

Planning Tools

As special and general educators increase their collaborative efforts, the importance of efficient and effective co-planning intensifies. Currently, numerous forms and tools are available to help teachers build instructional plans and implement strategies to improve performance and learning among all students. For example, the *CAST Universal Design for Learning (UDL) Lesson Builder* (CAST, online) provides special and general educators with tools to build and modify lessons. The *Class Profile Matrix* (Johns Hopkins University Center for Technology in Education, online) helps general and special educators organize accommodations and assistive technology recommendations from Individual Educational Plans (IEPs) in an electronic “at-a-glance” class view. Needed adjustments to instruction are grouped by areas, giving general and special education teachers a structure and format to use as they review where and when to implement required individual accommodations within the instructional cycle. Using these types of planning tools, teachers can efficiently structure co-teaching experiences by infusing a practical organization for planning and instructional routines.

Even when teaching alone, well-designed planning and organizing tools are vital in a secondary setting. One robust planning process, The Unit Organizer Routine, was developed specifically to address the highly personalized and complex nature of the instructional planning process for high school teachers. In the “Teaching in the face of academic diversity: Unit planning and instruction by secondary teachers to enhance learning in inclusive classes” article, Boudah, Lenz, Schumaker, and Deshler posit that instructional planning is particularly difficult when teachers address curricular demands and select strategies to differentiate instruction for high school students. This article adds to the limited research that has investigated how general secondary teachers plan in academically diverse or inclusive classes. The authors emphasize that few teachers take individual needs of students with disabilities into account at the lesson level (Boudah, Deshler, Schumaker, Lenz, & Cook, 1997; Joint Committee on Teacher Planning for Students with Disabilities, 1995; Schumm & Vaughn, 1991, 1992; Schumm et al., 1995). They suggest that many secondary educators view the value of planning and adapting whole-group instruction primarily from the perspective of how much it benefits all the students, not just the individual.

The purpose of the Boudah, Lenz, Schumaker, and Deshler study was to investigate issues related to planning and delivering instruction to academically diverse classes and to determine the efficacy of the Unit Organizer. The Unit Organizer was

designed specifically for secondary general education teachers to plan, introduce, and develop units meant to improve achievement of all students in the class. With the Unit Organizer, teachers identified objectives and began to review their materials critically, making choices about what information was important. Students used the tool as a study guide helping them understand the curriculum, because large amounts of curriculum content was organized and visually represented into meaningful chunks of information. Overall, teachers in the study found the tool helpful, particularly in areas of teacher and student organization. In general, the teachers using the Unit Organizer reported that students who were low achieving or had LD experienced greater success on unit assessments.

Predictably, as the use of efficient planning tools for organizing curriculum content, instructional delivery, and accommodations becomes routine practice among general educators, better instruction and improved results for students with disabilities in general education settings can be expected.

Cooperative Learning and Technology

Similar to the thrust toward building effective partnerships among professionals to produce positive outcomes for student learning is the momentum for implementing specialized cooperative learning groups to provide peer-mediated instruction and support for diverse student populations in general education settings. In the “Effects of video modeling on implementation of literature circles in inclusive content area classrooms” article, O’Brien and Dieker convey the importance of establishing learning environments with effective inclusive practices (e.g., co-teaching, cooperative learning, peer-mediated instruction, positive behavioral support, content-enhancements) that attend to a broad range of needs for a diverse, new generation of learners. Present in today’s secondary general education classrooms are students whose reading, math, and writing levels can span five or more grade levels, students with poor executive functioning, and students who lack behavioral skills for appropriate social interaction with peers and teachers. Yet, the majority of these struggling students come to school conversant with the world of media and technology. O’Brien and Dieker are on target in applying a multimedia component when teaching these “tech savvy” students how to execute their group roles and apply key reading strategies.

In their study, students with learning disabilities and their classroom peers viewed video models of small group literature circle book discussions that demonstrated the use of this approach in actual situations. The author evaluated the extent to which students in the video model group demonstrated knowledge of the approach, roles, cooperative learning, and improved academic outcomes. This quasi-experimental study with random assignment of teachers’ middle school classrooms to alternate treatments (i.e., video modeling and non-video) involved 158 middle school students, including 43 students with disabilities in which 20 were assigned to the video group and 23 to the non-video group. Results demonstrated an overall significant difference between the two groups suggesting that viewing video models improves use of cooperative learning approaches, such as literature circles. However, only role responsibilities and

cooperative learning processes were found to be well-developed in the video group when compared to the non-video group separately.

O'Brien and Dieker remind educators that the results of video-modeling with today's students should not be surprising considering that they frequently are referred to as "Generation M," accentuating their engagement and expertise in media. They are learning in a culture in which technology is a defining characteristic and media is viewed as simply another way to acquire information and skills. O'Brien and Dieker further suggest that video-supported instruction can benefit teachers as they learn to implement inclusive practices. Multimedia video resources are mainstream technologies with broad application and promise. However, use of multimedia should be based on the findings that point to its effectiveness for supporting training and instruction. These types of tools will likely be part and parcel of 21st century instructional routines.

Individualization

As schools continue to grapple with 21st century changes, multimedia and other instructional technologies will play prominent roles within school culture. Many teachers are presently using instructional and assistive technologies with complementary instructional strategies, such as cooperative learning, to optimize learning outcomes for groups and individuals. This trend will most likely continue to expand as teachers seek strategies that personalize the exponential expansion of content and the increasing diversity of students' needs and interests. One promising approach is the Personalized System of Instruction (PSI) model, which includes criteria related to self-pacing, mastery-based learning, teacher acting as motivator, and written responses. Although developed approximately forty years ago, its advantage for today's classroom is due to its focus on providing the learner choice and independence. The original purpose of the PSI model was to help students become independent learners who could manage their learning by setting clear goals and timelines and monitoring their progress (Keller, 1968).

The PSI model is the subject of the article, "Personalized System of Instruction Model: Teaching health-related fitness content in high school physical education" by Hannon, Holt, and Hatten. In this instance, the PSI model was designed and implemented with an overarching purpose of preparing students for a "lifetime of learning" and was applied to the area of health-related fitness content in a high school setting. Having a successful model focused on this content area is quite relevant due to the recent concern regarding obesity in the United States and the interest in physical education at the high school level on content, life-long learning skills, and sport performance. Twenty-six high school students participated in the study in which they engaged in the PSI process with video support to acquire the fitness content and skills related to post-rehabilitation. Results showed that 11 out of 12 data sets met the confirmation criteria for successful implementation of PSI in a physical education setting. This study represents the importance of finding effective and practical instructional frameworks that are successful in bringing individualized solutions to the growing scope of variance among students in general education classes.

High Quality Professional Development

From the previous articles, it is easy to discern the importance of integrating effective practices into the use of collaboration and co-teaching, cooperative learning, multimedia, and personalized instruction. Yet, to realize their power and make their use customary as standard instructional practices or tools requires that teachers are sufficiently skilled to ensure high quality implementation within the classroom. The importance of effective professional development is heightened even further when teachers attempt to implement effective practices in demanding settings. In the article, “Liberating reading instruction: Professional development for content area teachers at a school for incarcerated youth,” Laster stresses the significance of high quality professional development as she shares a warm, compelling account of how a prison school “liberated” reading instruction. As the narrative unfolds, the key elements of professional development emerge—a meaningful vision, reflective practice, instructional practice anchored in theory and research, and ongoing learning opportunities within a professional community. Laster tells this story within a descriptive study using several voices: the director, the science teacher, and students. The director shared her vision that quality education is a gateway to success for youth with limited opportunities and that reading is essential for them to achieve proficiency across content areas. The science teacher reflected on the importance of students learning the language of science and how to read and extract fundamental information from a science text. Finally, the reading specialist emphasized the urgency of teaching reading and identified three areas (i.e., essential pedagogy, reading and writing as a constructive process, and ongoing authentic assessment) that served as a basis for the content of the course she provided to the staff. Through job-embedded, on-going professional development teachers learned to assess, differentiate, implement phonics instruction, and help students develop independent reading strategies.

Laster chronicles a poignant story of how a small professional learning community worked toward a shared vision of improving reading and writing instruction and realized improved academic outcomes for incarcerated youth. This professional development project produced potential suggestions for effective staff development. Teachers built a collaborative, reflective learning community in which participants planned together to actualize their commitment toward improving their teaching competencies. Despite the difficulties and limitations of the prison school environment, these educators worked together to ensure that their students received the best reading, writing, and science instruction possible.

Summary

Each of the studies in this issue examines various approaches or practices that demonstrate or suggest the promise of efficacy in tackling the often daunting challenges of the 21st century classroom—demographic diversity, constant change, information explosion, and the integration of innovative, emerging technologies. Considered together they delineate the importance of assembling a complement of practical and effective resources that can address these forces and help educators transform today’s

schools. The day of an individual teacher in a self-contained classroom is past. If educators are to finally confront the challenge presented by *A Nation at Risk*, it is time to bring robust resources such as collaboration, co-teaching, effective planning, cooperative learning, technology, individualization, and high-quality professional development into the 21st century and to the forefront of conventional practice among all special and general education teachers.

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