Behavioral Research and Teaching

Converging Paths of Developmentally Appropriate Practice (DAP) and Inclusion in a Multi-Age Primary Program: One School’s Experience

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ABSTRACT

An increasing number of students with mild disabilities are being served in regular education classrooms, a trend which appears likely to continue. In this study, we describe one school's experience with general education reform that is conceptually and philosophically aligned with inclusion of students with mild disabilities and coordination between general and special education programs. We use interviews to discern ways in which practices are in accord, or discord, with the school's vision and to develop an understanding of requisite supports needed for staff to meet individual students' needs within the general education setting. Results indicate that, despite the accommodations teachers make for individuals, meeting the full range of academic needs in a multi-age classroom may be more desirable than feasible.
Converging Paths of Developmentally Appropriate Practice (DAP) and Inclusion in a Multi-Age Primary Program: One School's Experience

In this paper we describe the complexities of systemic school reform and the processes of change that are involved in the context of one school's restructuring efforts. Our study focuses on the late primary program of one elementary school in which teachers are attempting to implement developmentally appropriate practices (DAP) in a reorganized structure that includes multi-age classes, a team approach to planning, problem solving among general and special educators, and development and use of curriculum-based assessments to inform instruction and evaluate student progress. The team's engagement in the new collaborative model of team planning and problem solving, with teachers' focus on meeting needs of individuals through use of developmentally appropriate practices, has led the team to question assumptions about the placement and programs for students with special needs, particularly those identified as having learning disabilities. This broad restructuring strategy provides a unique opportunity for creating adaptable learning environments conducive to inclusion of students with special needs in the academic life of the mainstream. The parallel paths of two school reform efforts, DAP from the early childhood education perspective and inclusion from a special education perspective, hold promise of informing one another and converging to optimize learning environments and opportunities for both typically developing students and their peers with special needs.
Prior to describing the restructuring school and the primary team’s efforts that are the focus of this study, we offer a literature review that helps to define DAP and inclusion and the issues which surround them. We also explore the ways in which paths of DAP and inclusion are beginning to converge, despite their roots in separate disciplines, as described in literature from general early childhood education (ECE) and early childhood special education (ECSE). Additionally, we provide a brief literature base that discusses school change and the processes it involves. The literature review is conceptual rather than empirical in nature and is intended to provide a context through which we can interpret our findings from observations and teacher interviews at the restructuring school.

This school’s chosen path toward school improvement is not unlike the efforts being undertaken in elementary schools throughout the nation as the staff attempts to develop and implement a primary program built on a joint foundation of developmentally appropriate practice (DAP) and inclusion of special needs children in regular education classrooms. Restructured learning environments, such as the nongraded multi-age primary classroom, may potentially provide adaptable and inclusive organizational and instructional learning environments (Tindal, Goldman, Kaufman, & Schmuck, 1993). Linda Darling-Hammond, cited in Boyer (1995) states, “The challenge is to focus on what students need and then work in an environment flexible enough to allow us to meet those needs” (p. 142).
In order to understand the complexity of change in this environment and the requisite supports needed for staff to meet individual students' needs within the general education setting, we observed and listened to teachers and administrators as they engaged in school reform. We focused on their perceptions of the capacity of the multi-age primary program to accommodate student variance in order to discern emergent themes on necessary conditions of restructuring the learning environment to encompass developmental and inclusive practices.

**Developmentally Appropriate Practice**

Since the National Association for the Education of Young Children (NAEYC) published its position statements and guidelines defining developmentally appropriate practice for early education in 1987, considerable professional interest and thoughtful criticism of DAP have emerged among educators (Bredekamp & Rosegrant, 1992). The NAEYC produced its guidelines in response to two specific needs: (a) to operationalize the term "developmentally appropriate," which was used throughout the accreditation standards it developed in 1984 for early childhood programs; and (b) to counteract a trend toward more formal, academic instructional programs for young children, which had been escalating throughout the 1980s—partly as a result of the publication in 1983 of *A Nation at Risk*. Bredekamp and Rosegrant (1992) state, "The call for developmentally appropriate practice was in many ways a call for kindergarten and primary grade practices that better reflect what is known about how children develop and learn (what is age
appropriate) and practices that are more sensitive to individual and cultural variation (what is individually appropriate)" (p. 3).

The NAEYC clearly posits that, rather than a curriculum or set of rigid standards, DAP is a philosophy of working with young children in ways that acknowledge and support individual variation in growth, development, and learning. Bredekamp and Rosegrant (1992) explicitly state that the framework developed by the NAEYC guidelines is informed by the work of learning theorists Piaget, Vygotsky, and Erikson and that it is aligned with their theories about how children learn. These theorists' constructs of maturation and constructivism contribute to the age-appropriate, or normative, dimension of DAP as defined by the NAEYC and to the individual, or variable, dimension as well.

With the publication of DAP guidelines and distribution of more than 300,000 copies, the NAEYC has expanded its sphere of influence beyond predominantly early childhood and preschool programs. The language of DAP and its philosophy have clearly moved into the primary grades of elementary schools. In fact, some states, Oregon and Vermont for example, have legislated or recommended practices such as the implementation of nongraded, multi-age primary developmental blocks through which children progress at a flexible pace (Roach, 1991; Tindal, et al., 1993). New and Mallory (1994) note that many refer to the NAEYC's guidelines for DAP as "the Bible" (p. 2). The document's impact is clearly being felt as educators of young
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children work to restructure schools and create learning environments which reflect the understandings and beliefs underlying constructs of DAP.

According to the NAEYC guidelines there are several key features of DAP (Bredekamp & Rosegrant, 1992):

1. DAP is a framework with two critical dimensions: age and individual appropriateness.

2. DAP is for all children—not only those considered to be “typically” developing.

3. Learning environments are highly structured, yet facilitate active involvement of children in their own learning.

4. Curricular goals and objectives are appropriate for the age level(s) of children and responsive to individual patterns of learning and development. They address “all areas of human functioning, not just narrowly defined basic skills” (p. 5).

5. Child development knowledge is integrally linked with curriculum and assessment choices and practices.

6. Assessment results in benefit to the child. It should encompass many forms, come from multiple sources, and be used to inform instructional decision making.

The DAP framework and philosophy described have clear implications for teachers. Implementing DAP implies pedagogical reflection and, for many, change in practice. New and Mallory (1994) have “cautioned teachers against remaining dependent on others’ prescriptions to inform their practice,
particularly when their circumstances might allow them to co-construct new models of pedagogy to accommodate the challenges presented by the diversity of children in their classrooms” (p. 3). DAP requires teachers to devise and implement educational programs that take into account individual student skills, interests, and growth.

If teachers are to develop their own prescriptions for individual children, they need data to guide their decisions. Without question, ongoing assessment is integral to designing and implementing teacher-selected practices responsive to individual needs. Bredekamp (1993) states, “A program cannot possibly achieve individual appropriateness without assessing and planning for children’s individual needs and interests” (p. 263). Slavin (1990) argues that “Virtually all the programs found to be instructionally effective for students at risk involve frequent assessment of student progress and use of these assessments to modify groupings or instructional content to meet students’ individual needs” (p. 48). DAP guidelines delineate the important role assessment plays in implementation and offer parameters for its judicious and effective use (Bredekamp & Rosegrant, 1992).

Use of ongoing assessment is integral to the transformational curriculum strategy recommended by the NAEYC through which teachers plan curricular activities based on knowledge of individual student’s skills, abilities, needs and interests (Bredekamp & Rosegrant, 1992). It is called “transformational” because it requires continual planning, implementation,
and assessment that results in adaptations as the need arises (McLean & Odom, 1993).

Ideally, assessments are used to individualize programs so they are not only developmentally appropriate but also individually appropriate. In this process, the assessments provide a common language for teachers to communicate the needs and strengths of each student. DAP guidelines, which are intended to be flexible, then, can be used to facilitate decision making between teachers, students, curriculum, and assessment. Johnson and Johnson (1992) state, “DAP seeks to integrate the teacher and the child’s agenda to allow meaningful engagements and satisfying and worthwhile learning or assessment encounters. DAP is authentically individualized” (p. 444, [italics in original]). If the underlying assumptions of DAP regarding individual appropriateness are reflected in actual practice, this multi-age primary program suggests a learning environment with the potential to include children with special needs. We believe DAP is more suited to and aligned with the current movement in special education to include students with disabilities than any other philosophy or program in general education. The basic tenet of this practice has individual appropriateness as its primary focus, yet it is designed for all students and promulgates a broad teaching and learning structure with assessment providing the medium of communication.
Inclusion

What does inclusion mean? Inclusion is a socially constructed term which means different things to different people (Fuchs & Fuchs, 1994; Tindal, Marr, & McCullum, 1996). Little consensus of definition exists among those in the professional education community (Ferguson, 1995; Lewis et al., 1994). Roach (1995) suggests "Inclusive programs restructure the school so that support services are brought into the regular classroom" (p. 296).

Inclusion is the practice of serving students with a full range of disabilities in their neighborhood schools and regular classrooms with supports necessary to promote students' successful participation (Falvey, Grenot-Scheyer, Coots, & Bishop, 1995; Roach, 1995).

Educators sometimes use the term interchangeably with the term "mainstreaming." We believe, however, a clear difference exists in the philosophical constructs underlying each of the terms. Mainstreaming assumes children with disabilities will be separated from peers for instruction for at least part of the day. "Mainstreaming refers to multiple service levels at which a range of administrative and instructional options as well as a variety of staff utilization patterns are available" (Epps & Tindal, 1987, p. 213). On the other hand, inclusion presumes children will remain in their neighborhood school and preferably in general education classrooms on a full-time basis. More restrictive settings are used only when a placement team, including the child's parents and special and general educators, makes such a determination.
based on the child’s unique needs and learning goals as specified in the individualized education plan (IEP).

Falvey et al. (1995) trace the evolution of inclusive models from the REI concept conceived by Madeleine Will, former Assistant Secretary in the U.S. Office of Special Education, whose initial concern was for the increasing numbers of children who were “not making adequate progress and . . . were excluded from programs offering needed individual help because they did not fit the eligibility criteria” (p. 33), to more extreme conceptions of inclusion that call for placement of all students, including those with severe disabilities, in their neighborhood schools and regular classrooms. Sailor et al. (1989) call this the “zero-rejection assumption” (p. 1). Will’s advocacy for including special needs students has become known as the Regular Education Initiative (REI) and has been widely debated. Though the field has moved past her “white paper” on REI, the movement to align general and special education that she began has continued.

Banerji and Dailey (1995), Falvey, et al. (1995), and Hasbrouck (1996) point to a significant trend in serving children with learning disabilities in the general education classroom rather than in pull-out programs. Indeed, the 17th Annual Report to Congress on the Implementation of IDEA (1995) reports, “During the last five years, regular classroom placements for students age 6-21 [with specific learning disabilities] have increased by almost 10 percent. The use of the resource room has decreased. . .”(p. xix). These data are reflected in statistics from the 17th Annual Report related specifically to
Oregon where 9,300 students ages 6-11 with specific learning disabilities were served in regular classrooms and only 3,785 were served in resource rooms.

Building on this summary of recent trends, Putnam, Spiegel, and Bruininks (1995) used the Delphi Technique—a process for forecasting future trends using panelists from a broad spectrum of disciplines—to predict directions for special education. They concluded that integration of people who are “learning disabled” into general classes is appropriate, desirable, and likely to occur. This trend is significant because those categorized as having learning disabilities comprise the largest group of children receiving special education services (U.S. Department of Education, 1995). Continuously shaped by research, public pressure and attitudes, legislation, and litigation, pedagogical trends toward inclusive practices arise from both general and special education domains and public demands for improvement of instructional practice and outcomes for all students. The trend is fueled by multiple factors:

1. A lack of empirical evidence for the efficacy of the familiar dual system of special education which has emerged over the last 20 years (Baker, Wang, & Walberg, 1995; Leinhardt & Bickel, 1987; Lipsky & Gartner, 1995; Madden & Slavin, 1983; Sailor et al., 1989; Semmel, Abernathy, Butera, & Lesar, 1991; Villa & Thousand, 1988).

2. Evolving interpretations of the Least Restrictive Environment (LRE) and Free and Appropriate Public Education (FAPE) provisions of the IDEA (Huefner, 1994; Yell, 1995).
3. Professional and public debate surrounding premises of the Regular Education Initiative, (see, for example, the May/June 1990 Special Issue of Remedial and Special Education v11, n3).


5. The need to label programs, not students, and redefine special education as service oriented not placement anchored. Although special education has historically been linked to place of service, successful learning is less dependent on organizational strategies than on the quality of instructional practices (Banerji & Dailey, 1995; Falvey et. al, 1995; Sindelar, 1995; Veenman, 1995). Leinhardt and Bickel (1987) suggest “program labels are of little use in evaluating instructional success, but specific features of instructional design and practice are” (p. 179). Many argue for “labeling instruction, not children,” emphasizing treatments that are child specific rather than setting bound (Epps & Tindal, 1987; Leinhardt & Bickel, 1987; Semmel et al., 1991).

With these issues in mind, the effort to include students cannot imply cutting services and dumping children back into general education classrooms without vital systems preparation and support (NSIE, 1994; Schumm & Vaughn, 1995). “The supports needed for all students to reach their full potential can best be provided in a collaborative system where general educators, specialists, and parents each bring their specific areas of
expertise to the process of defining needs and arranging supports to meet those needs” (Falvey et al., 1995, p. 16).

Though meanings assigned to the term inclusion remain ambiguous, Schattman and Benay (1992) and Falvey et al. (1995) have identified characteristics common to inclusive schools:

1. Inclusion is part of broader school reform and restructuring efforts.

2. Planning teams utilize a collaborative approach to solve problems and design and implement programs for individual students based on comprehensive assessment.

3. Traditional roles and responsibilities of administrators, and general and special educators are less distinct and more integrated as team members learn from one another and upgrade skills.

4. Responsibility for student outcomes is shared among all team members.

5. Adaptations within the general education setting accommodate individual needs. Systematic arrangement of specialized support exists in the regular education setting.

Summary: Converging Paradigms of DAP and Inclusion

DAP has emerged in early childhood education in response to undifferentiated instructional practices which treat children within an age cohort as having similar abilities, skill development, and learning rates. Bredekamp and Rosegrant (1992) postulate “Any teaching approach that is applied to all children in the same way without any adjustment for
individual differences will fail for at least some of the children” (p. 4).
Inclusion has emerged in special education in response to concern for increasing numbers of children being identified and pulled out of mainstream classroom environments for special education services, particularly those with mild disabilities, even though there is little evidence to support the separate system that has evolved.

The concepts of DAP and inclusion have arisen from differing philosophies and disciplines, but the two efforts are converging in early childhood (EC) and early childhood special education (ECSE) literature. Much professional dialogue and constructive debate has centered on the applicability of DAP guidelines to children with special needs (see for example Topics in Early Childhood Special Education, 11(1) 1991; 12 (4) 1992; 13 (3) 1993 and the Journal of Early Intervention, 18 (4) 1994). In addition, Remedial and Special Education devoted special issues (see 11 (3) 1990 and 11 (6) 1990) to implications of inclusion for regular classroom teachers and the impact they might have on general education learning environments. Wolery and Bredekamp (1994) note that general and special education share many assumptions about young children and how they learn. They agree that areas of convergence can be achieved through collaboration between the disciplines.

Programs embracing concepts of both inclusion and DAP presuppose the capacity of the general education learning environment to develop, implement, and monitor differentiated programs of instruction for students
with a broad range of diverse abilities. Major (1996) cautions that "the ability to maintain or reintegrate children with special needs into the mainstream is directly related to the conditions of the mainstream, the regular education classroom" (p. 16). Developmental practices hold promise in stemming the tide of increasing numbers of children described by Will (1986) as "unable to learn adequately in the general education system" (p. 413). Tindal et al. (1993) allude to the overlap in reform stemming from both regular and special education perspectives—"The necessity of regular education reforms designed to create a more adaptable and inclusionary learning environment cannot be overemphasized" (p. 2). As debates surrounding the Regular Education Initiative (REI) and trends toward inclusive service delivery continue to grow, a number of researchers and authors have informed educators about change processes and offer cautions to those charged with implementation of new practices.

Semmel et al. (1991) remind us that well-developed empirical data validate teachers' expectations and beliefs as powerful influences on student achievement and behavior, noting that full-time placement of students with mild disabilities in the regular classroom "may not result in the expected objectives for such students if teacher perceptions and expectancies of these students' abilities and behaviors are negative" (p. 20).

Miller (1990) notes that current school reform efforts known as the "second wave" are focused on improving learning environments for all students. It is at the individual building level, in actual classrooms, that real
change occurs and it “requires dialogue, reflection on practice, collegial regard, collaboration, and time to let things happen” (p. 19). Miller contends that top-down mandates (i.e. the REI) for systemic change in the relationship between general and special education will likely be undermined by teachers. Inclusion, as a strategy to improve the conditions of learning for students with disabilities, will not be successful “unless a partnership develops between special education and classroom teachers” (Miller, 1990, p. 17).

Vaughn, Schumm, Jallad, Slusher, and Saumell (1994) would agree with Miller. They found that the majority of the teachers they studied had negative feelings about inclusion—particularly when they were left out of decision making related to the changing model of service. Their study included special education teachers (N=25), general education teachers (N=25), Chapter I teachers (N=8) and teachers of the gifted (N=15). They conclude with recommendations for implementation of school-based inclusion practices that focus on adequate preparation and information for professionals and the community, and the need for adequate resources, ongoing support, and ownership of the change.

Gersten (1990) suggests three themes as particularly relevant to schools attempting to achieve collaboration between general and special education. First, he proposes that the disparate disciplines come together through development of a shared common language. Shared language and the joint understanding of underlying conceptual frameworks are critical for teachers to talk and think about instruction and student progress with one another as
decision-making centers on students' performance. Second, he suggests an understanding of the nature of expertise in teaching. "Increasing the expertise of classroom teachers to work with at-risk students and students with handicaps" (p. 51) is necessary if such children are to be successfully included in the academic life of the general education classroom. One means to such an end is for teachers to engage in structured coaching activities with a focus on student performance. Third, Gersten cautions professionals considering substantive change in educational practice to understand and use what is known about factors leading to enduring change.

Keeping in mind these cautions of teachers' attitudes and expectations in relation to the need for partnerships and collaboration, we designed a study to find out specifically what issues arose in development of an inclusion model. Our study, however, focuses on teachers' views regarding the converging constructs of DAP and inclusion within their newly developed multi-age primary program and the concomitant changes in working relationships between general and special educators their restructuring has engendered. To develop a clear picture of current practices and investigate the capacity of this team to implement the model they envision, we conducted a series of teacher interviews. We reduced the text of these interviews to themes which illuminate ways in which practices are in accord, or discord, with the team's vision and contribute to an understanding of requisite supports needed for teachers to meet individual students' needs within the general education setting. The study provides insight into the complexity of
the relationship between general and special education and the convergence of DAP and inclusion. We conclude with suggestions for next steps at this school, implications for other schools attempting to implement similar reforms, and recommendations for further study.

Methods and Results

The School

Having engaged in gradual school change over the past several years, this school's late primary (Grades 2/3 multi-age classrooms) team became interested in pursuing more inclusive practices in serving those students identified as having learning disabilities (LD). Teachers envisioned a seamless curriculum through which children would move at their own developmental pace. Increased variance of student abilities within each of these classrooms, resulting from the purposeful creation of multi-age instructional groups, suggests pedagogical as well as organizational change. The participants in this study attempt to develop and implement an inclusive, developmental program in which children do not fail and coordination between general and special educators is improved.

From its inception in 1991, Northwest's multi-age primary program, as implemented by the Grades 2/3 teaching team, has sought to develop classroom environments which are flexible and responsive to individual student needs. Multi-age primary classrooms are purposefully heterogeneous and view diversity as an advantage rather than an impediment (Gaustad, 1992). Several authors have suggested there are but a few ways in which
teachers can respond to heterogeneity in a classroom and still meet the academic needs of students with diverse abilities. They can (a) reduce the variance by bringing the “bottom” up, which implies prevention of learning difficulties or early intervention (Gerber & Semmel, 1985; Slavin, 1990); (b) reduce the variance by sending the bottom out, which implies separate pull-out services for children who deviate too far from the norms of the group (Gerber & Semmel, 1985); or (c) “increase the capacity of the classroom, perhaps supplemented by remedial or other resources, to accommodate a wider range of student skills and learning styles” (Slavin, 1990, p. 40).

Northwest’s multi-age primary was initiated within the context of state supported school reform efforts in Oregon. The school restructured organizationally in significant ways. Teachers digressed from traditional, age-grade grouping of students at the primary level and restructured the school day to allow for collaborative teacher planning time by releasing students at lunch time every Wednesday. This release time did not reduce instructional time for students, however, as student contact time was added to the other four days.

Beginning reform efforts at Northwest did not affect special education services or involve organizational changes in delivery of services. The school has 1.0 F.T.E. for resource teacher time, which is divided among two specialists at .5 each. There is a speech and language teacher and a Title I teacher as well. In addition, there are two self-contained special education classrooms housed at the school that serve students from multiple districts.
Historically, Northwest has implemented a mainstreaming model of special education for mildly handicapped students such as those having specific learning disabilities (LD) and speech and language impairments. Students remain in the general education classroom for most of the day and are “pulled-out” for individualized services as specified in the child’s individualized education plan (IEP). Pull-out programs have traditionally been separate from the curricula and expectations of the general education classroom, with little coordination or consultation between regular classroom teachers and specialists. As one general education teacher said of the resource room, “I don’t know exactly what they’re doing.”

By March of 1996, most teachers still felt school reform had not yet had a great effect on special education, but they unanimously (both general and special educators) expressed desire and readiness to consider alternatives to the current, traditional approach. One teacher’s words—“There’s a lot more talk about what we could be doing and a lot more questioning and searching for what we could do . . . so I think we will see change”—were indicative of sentiments expressed by a number of the late primary team and specialists. The process of change unfolding over time at Northwest meshes with Goodlad (1981) and Sizer’s (1984) assertion that restructuring requires schools to question assumptions and practices and to challenge commonly held beliefs as they explore ways to make schools more responsive learning environments.
Northwest’s explorations have contributed to a growing desire to respond to heterogeneity by increasing the capacity of the general education classroom to accommodate diversity. Teachers are open to confronting classroom practices and bridging the gap between general and special education programs within the school. They seek to collaborate in an effort to coordinate services while continuing to maintain a range of placement and service options. They do not want to abandon the resource room or pull-out programs for all children, but strive to use them in a more individualized fashion while adding in-class support as a viable option for those students for whom it is appropriate.

Demographics

This K-5 school has a population of about 500 students. It is located in a semi-urban district composed of nearly 4,200 students in Oregon’s Willamette Valley. Eighty-three of the school’s students are identified as eligible for special education services; 47 of these are identified as having specific learning disabilities. Students come from predominantly white, working class families.

Teachers

Participants in this study are seven primary level (Grades 2/3 multi-age) general education teachers, two resource room teachers who each work half-time, and the building principal. This teaching team and the resource room teachers have been participating for 3 years (since the 1993-94 school year) in a grant in conjunction with a local university to look at multi-age
primary programs and their potential for inclusion of students with diverse needs and abilities, including those identified for special education services. Participation in the grant provided teachers with training by university staff in team-building processes and assistance in development and use of curriculum-based assessments. Participants have also had opportunities to visit schools implementing DAP, multi-age classrooms, and inclusion models. They have used release time to plan collaboratively, score assessments and discuss the outcomes. This current study utilizes data collected in the 1995-96 school year.

Data Collection and Analysis

Teachers and the building principal were interviewed by researchers using two semi-structured interview protocols. Questions served as a guide to prompt dialogue rather than a rigid set to be asked specifically. Interviews were conducted 3 months apart. The first interview, conducted in December, focused on how general education teachers made adaptations to meet needs of individuals in the heterogeneous setting. The building principal did not participate in this interview. The second interview, conducted in March, focused on existing practices related to identification, placement, and instruction of students with special needs. Questions were designed to elicit perceptions of the existing model of special education in the building and how it functions, as well as ideas about what might facilitate greater inclusion. Interview guides are presented in Figures 1 and 2.
Insert Figures 1 & 2 about here

Interviews were tape recorded and transcribed. To sort and analyze the data, we used a process articulated by Seidman (1991). First, we read each transcript in its entirety to get a sense of the respondent's thinking in relation to the questions asked. During a second reading, we marked passages of interest and noted descriptive labels for categories of information as the categories emerged. We looked for common themes and recurring ideas to sort and analyze information, giving tentative labels to the themes discerned. Our sample was small and interviews were open ended, so if the same idea was raised by four or more respondents, we considered the idea thematic. Some categories and labels from initial sorting were merged with others or discarded in favor of more compelling ones. These themes were configured in three parts: (a) a description of the existing model and practices related to serving children with special needs, (b) a description of adaptations teachers make to accommodate individual differences in student performance in their heterogeneous classrooms, and (c) perceptions of the team's capacity to implement change (DAP and inclusion).

**Description of Existing Model**

All teachers and the principal interviewed gave similar, cogent descriptions of the existing model of special education and delivery of services at the school. The staff has adopted and adheres to a "pre-referral" process designed to exhaust instructional options in the regular classroom environment for a given student prior to referral for testing for eligibility for
special education services. The pre-referral process is carried out by a Teacher Assistance Team (TAT) composed of general and special education teachers, the principal, and a counselor. Steps in the process include (a) a referral is written to the TAT describing the concerns and documenting strategies already tried and their outcomes, (b) the TAT discusses the case and generates additional ideas and supports for the classroom teacher to try resulting in a plan of action to be implemented for about a 6-week period, and (c) the TAT reconvenes to assess the outcome of the temporary intervention strategy. If the child's progress is still a concern, paperwork is usually initiated for parental consent to test for special education.

From this point in the process, establishment of eligibility is almost a given. It is rare at this school for a student who is tested to be found ineligible. If eligibility is established and parents allow, an IEP is developed with input from parents, the classroom teacher, and special education staff.

Teachers and the principal said that if a child was found eligible for special education services due to academic learning disabilities, he or she would be placed in the resource room with the greater part of the discussion focusing on the amount of time and scheduling. There is no formal consultation model or process in place for considering implementation of special education services within the regular classroom environment. It is interesting to note that pre-referral strategies brainstormed by the TAT team earlier in the process do not include in-class support from the special education staff but tend to be suggestions for adaptations the general
education teacher can make on her own. The following themes emerged about the nature of the current system.

1. Communication between general and special education staff tends to be unsystematic and informal except for TAT meetings, IEP meetings, and parent conferences. Late primary teachers meet weekly to plan collaboratively. One of the resource teachers usually attends these regularly scheduled meetings, but they rarely discuss individual student needs in this setting. The meetings are primarily used to plan curriculum, multiple class activities, and field trips, etc. Most teachers acknowledged that they frequently exchange anecdotal or impromptu information about individual students in an informal way during these meetings, over lunch, and when passing in halls and breezeways. Teachers described the nature of informal communications as “sharing back and forth—we share both concerns and successes.” Several teachers mentioned that they do not share curriculum between general and resource classrooms, but that they do exchange information regarding student progress.

In addition to team meetings and informal communications, general and special education teachers work together to establish IEP goals with parents and to review them annually. They also share information on student progress for report cards and parent conferences. Specialists attempt to attend the regular fall and spring parent/teacher conferences for each of the students they serve. One teacher’s response, when asked when she consults with resource and Title I teachers, sums it up succinctly, “During conference
time, whenever we can find the time.” No established meeting times are set for regular and special education teachers to meet on a regular basis.

2. The range of services is almost totally dependent on pull-out programs. General and special education operate as separate systems, but efforts to coordinate are apparent. Teachers and the principal described service options for identified students in terms of place and category of service (i.e. resource room, speech and language, Title I). A few noted the regular classroom as an option for “monitoring” students with the assistance of supports such as peer or parent tutoring. Almost all suggested that remaining in the classroom full time was not considered a placement option for students with academic learning disabilities. This sentiment was clearly expressed by one teacher, “Usually, if we were going to leave them in the classroom, we wouldn’t have gone through all of this [eligibility] in the first place. Because if we were going to leave them in the classroom, the classroom would be working.” Another teacher said it this way, “I don’t think that kids have been served in the regular classroom if their disability is such that they qualify for resource help. Usually by that point they need pulling out in a smaller classroom setting.”

The separateness of the general and special education systems is exemplified in this statement by a Grades 2/3 teacher. “It’s hard to find a common ground, where the child can make that link between what they are learning in those two settings [resource room and general education classroom]. . .” Although the systems operate separately, general education
teachers, the special education teacher, and the principal all mentioned good communication between the various parties. The factor which seemed to facilitate this communication link was the availability of common time as a result of early release of students each Wednesday. This time has been set aside for collaborative teacher planning. The Grades 2/3 team interviewed met every Wednesday afternoon to discuss and plan curriculum and assessment. They used this regular meeting as an opportunity to discuss students as well. The resource teacher who serves most of the identified students from Grades 2/3 attended these meetings regularly, which promoted communication and coordination of programs to some extent.

Most teachers indicated satisfaction with communication between general and special educators regarding student progress, but were less satisfied with coordination of instructional goals, curriculum, and programs. Several teachers perceived the idea of resource room teachers collaborating with general education teachers to integrate programs of instruction as unrealistic. One Grades 2/3 teacher commented, “There isn’t enough [coordination of instructional programs]. We need to have more. I would like to know more about what they’re doing in their program and the different methods that they use for the kids that go there and exactly how they are doing. And they [special education teachers] want the same thing. They want to know what we’re doing....” Many mentioned informal and impromptu meetings (i.e. at lunch, in the hall, in the staff room, etc.) between
general and special educators as critical to ongoing communication about individual student progress and curriculum issues.

3. Teachers regard the general school reform movement as having little impact on special education practices in their school. Most teachers interviewed did not feel school reform had not yet had a great effect on special education but frequently expressed a belief that change was imminent. The following quotes from several different teachers demonstrate this notion. “Nothing, yet, I mean, I don’t see a difference between what’s happening now and what was happening 5 years ago. But there’s a lot more talk about what we could be doing and a lot more questioning and searching for what we could do if . . . so I think we will see change.” “I think the impact has been real slow. I think we have done a lot of different changes and adapting and I’m not sure that the special ed part of the program has really changed that much, and they are feeling that they probably should be changing.” “I don’t think it’s done a whole lot, made a lot of difference at our school because we’ve been trying to mainstream as much as possible.” Several teachers mentioned that having time to observe and study schools that had implemented more inclusive models was important to their continuous school improvement efforts.

Some movement toward greater collaboration between general and special education is seen as a result of general school reform efforts at the school. One Grades 2/3 teacher stated, “I think for a long time, until we started restructuring and becoming a Carnegie [Basic] school, the two
programs were very separate. . . But now that we’re working on school-wide themes and our focus is really a continuous curriculum, it is requiring more coordination.” Another teacher alluded to the movement away from reliance on textbooks as a positive change that allowed students with academic learning disabilities to achieve greater success. “Everyone can feel successful in the classroom.” The resource teacher also mentioned project work as helpful to coordination between special and education programs.

Adaptations to Accommodate Performance Variance

Teachers suggest they make adaptations to accommodate individual student needs for all students, not just those on IEPs. Many of the general education teachers stated that they did not treat identified students differently than normally achieving students, and that they made adaptations for individuals as the need was recognized. For example, one teacher said, “I don’t do anything more than what I do for any of the younger second graders . . .” Another simply stated, “We make adaptations for all the kids—constantly.” Teachers gave a number of specific examples of the types of adaptations they make, which we sorted into emergent categories: seating, grouping patterns, modified tasks or expectations, prompts and cues, and additional resources. Table 1 provides a description and frequency of mention of specific adaptations and sample teacher comments.

It is striking that teachers rarely reported adaptations for specific students made in the lesson planning process prior to implementation. Adaptations were almost always made as the “need arose” in the midst of a
teaching sequence and student response. One teacher’s words were representative, “I trim my expectations when I notice that she is starting to struggle.” The same teacher noted that adaptations are as “naturally occurring” as when peers spontaneously help one another.

**Perceived Capacity to Implement Change**

1. General education teachers acknowledge challenges to meeting individual needs in heterogeneous classrooms. All seven late primary teachers mentioned the same three challenging dimensions to the multi-age developmental model they are implementing: (a) a wide range of abilities, (b) class size, and (c) planning lessons that were open-ended enough to challenge the more capable students and not overwhelm those with lesser skills. One teacher mentioned having two years’ worth of curriculum instead of one to cover, and another suggested that meeting needs of a broad range requires additional resources (i.e. “parents who can pull kids out and do a literature group or an extra math enrichment”).

Although teachers unanimously spoke to the broad range of abilities in a multi-age classroom, most said the range was not much greater than that found in a typical single grade classroom. One teacher said, “There’s a lot of overlap [in skills between grade levels]. I’ve got some second graders that are getting up there in some areas and there are those still needing a lot of support in others. Funny how they’ll spike in different places.” Another stated, “I don’t think it’s any different than what I would feel in a single age group of children where I had a lot of students. I feel like there isn’t enough
of me with 27 kids . . . [there are] real ranges as far as their ability, from kids that are pretty much beginning readers, first grade, preprimer readers all the way to kids that are reading at a fifth grade level . . . .” The box plot in Figure 3 illustrates the overlap in reading skills indicative of these late primary classrooms. Notice that for oral reading fluency (CWM) the combined mean is 85 with the majority of scores clustering between 75 and 100 CWM. It is also apparent that many Grade 2 students read qualitatively like Grade 3 students and vice versa.

2. Students with academic learning disabilities could be served in the regular classroom with appropriate and adequate support services and resources. All of the Grades 2/3 teachers except one, the resource teacher, and the principal supported the notion that some students with learning disabilities who are currently served in a pull-out resource program might be served successfully within the regular education classroom given the appropriate support. They suggested that additional staffing (i.e. instructional assistants, special education teachers, smaller general education classes) would be necessary. They also mentioned the need to facilitate small group work and even 1:1 instructional options if inclusion was to be successful. One teacher said, “If they had individual support, I think they’d do fine.” She voiced concern for what individual support might mean, as did other teachers interviewed. This same teacher went on to qualify her first statement, “I haven’t really seen that kind of model, so I can’t really tell how it would work.”
The resource teacher was the only one who specifically mentioned the individual appropriateness of the intervention and service delivery. She said, "I think it would depend on the student and what we’d written as goals and objectives . . . it may be assistant time, it may be a different curriculum . . . I think it’s a definite possibility, but we’ve got to look at each individual case when we’re writing the IEP because they are all different." One teacher disagreed, "Not the ones I have . . . there’s only so much I can do for 26 second and third graders with their mixed [ability] levels."

3. Teachers reported a broad range of assessment strategies and perceive themselves as jointly accountable for student progress. There was little difference in the response to this question between general and special educators. They uniformly mentioned use of Curriculum Based Measurement (CBM) for tracking individual progress in reading, writing, and math. Several referred to "red flags" or "alarm bells" when CBM data reflected less growth than expected and suggested this would cause them to consider modifications of instruction for individual students and/or groups. One Grades 2/3 teacher said, "If the child is not progressing [on comprehension measures], I’ll modify instruction—give him more sequencing activities, etc." Another teacher said, "It causes me to talk with parents, try to get them maybe practicing more at home. Eventually doing a TAT, and filling out paperwork." Most teachers referred to frequent and ongoing assessment using daily work samples and observation of student performance and behavior. Teachers also mentioned standardized state
assessments and annual IEP reviews. One teacher spoke to individual considerations in relation to evaluation of progress. “I just look at the kid and the maturity level and decide whether I think they’re ready to go yet or not developmentally. If they’re not, I don’t worry about them too much because it’s just going to take some time. Continue teaching, review, and practice.” While special education teachers seemed to take primary responsibility for progress in areas of a child’s IEP, general education teachers clearly accept responsibility as well. The resource teacher noted that at some schools special education kids were seen as “her” kids. At this school, “It’s our kids.”

4. Teachers and the principal perceive the lack of time and resources and general education class size as barriers to inclusion. Teachers and the principal unanimously identified lack of time as a primary concern. When questioned further, time seemed critically related to two different issues: (a) amount of staff time (special education teachers and instructional assistants combined) allotted to the school for planning and implementing special education services in consideration of the numbers of qualifying students, and (b) actual time available to meet and collaborate between general and special educators due primarily to tight schedules and heavy student loads. As one teacher said, “We have too many classes being served by too few support people . . . 500 kids for one resource teacher, one music teacher, that kind of thing.” Several teachers also mentioned the size of the school and its physical layout as barriers to greater inclusion.
Teachers indicated they don’t have enough time to see each other at work with children and observe various methodologies used with the special needs students. One Grades 2/3 teacher said, “The resource teacher has asked so many times to be able to come in our rooms and see how we teach reading. There’s just no time for her to do that and vice versa. I would love to be able to go in there and see what strategies they’re using with my kids . . . to see what their effective teaching methods are. And I can’t go in there, so I can’t see it” [due to time and teaching schedules].

5. *Teachers and the principal perceive good communication and skilled personnel as facilitators to inclusion.* Without hesitation, teachers and the principal spoke to how greatly they valued the Wednesday afternoon planning time routinely built into their week as a result of early release of students. This time was seen as the primary facilitator of ongoing communication between the resource room teacher and the general education teachers. General education teachers emphasized how helpful it has been for communication purposes that one of the resource room teachers joined their team this year. A couple of teachers referred to a retreat the staff had in the fall and classroom “walk-abouts” as helpful to communication and understanding of various school programs.

All participants interviewed spoke of each other with great respect for the good work they do. There was an overwhelming sense communicated that while the interface between general and special education may not be perfect, it was not a reflection of lack of good will or competence but rather a
barrier to overcome. The resource teacher said of her general education colleagues, “We have wonderful teachers here and they are very, very talented . . .” Conversely, a Grades 2/3 teachers said of the resource room teachers, “They are very good at keeping us updated on what our kids are doing, even if it’s just a chat in the staff room over lunch. They do a good job.” And the principal said, “People here try to solve problems, so they find a time and work out a way to accomplish this [communication].”

6. Teachers shared thoughts on perceived benefits of the multi-age, developmental program emerging during the first few years of implementation. Late primary teachers have committed to keeping the same cohort of students for 2 years in the model they have developed (i.e. one teacher’s second grade students stay with her for a second year as third graders). They frequently mention the bonding between the teacher and students, between the teacher and families (parents and siblings), and among students in the classroom cohort that results from this arrangement to be highly desirable and satisfactory. One teacher captured the feelings expressed by many, “I love the relationship, the bonding that you get that second year. I love the relationship you make with the parents that second year. I love being able to start teaching in September instead of October when you finally get to know the kids.”

Several teachers also commented positively regarding how they observed children’s’ growth over the two year span. One said, “. . . he’s so much better [behaviorally] this year than last—like night and day. That’s why
it's so good to have non-graded primary—you can have students for 2 years.”

One teacher acknowledged questioning herself about whether the second grade children in the class were getting what they really needed, the skills appropriate for their ability levels. But in the second year her fears were quelled. “They became my third graders—yes, they are [getting appropriate instruction at grade two]—because my third graders are very successful.”

In addition to bonding, teachers frequently mentioned development of self-esteem and expanded leadership opportunities as features of the multi-age group. One teacher stated, “I’ve got some, quite a few, little third graders that are taking on leadership roles because they know they’re older kids and that’s good. I think if some of the third graders were in a straight third grade class they would never rise to a leadership role, because they would always be struggling and trying to keep up. Now they can help other kids. Even if their skills aren’t as high as some of the other third graders, they can help second graders.”

7. Teachers and the principal perceive fuller inclusion as a desirable goal, but feasibility is a concern. The principal described the pull-out model as driven by efficiency. He added, “If we had our way, we would use the inclusion or ‘push-in’ model at every opportunity. We would have those special education teachers in that classroom working with kids so that there is the least amount of disruption to the class. But it’s just not efficient, so we use a lot of pull-out…” One teacher said, “I would like for L and J [resource teachers] to be more in our classrooms, but I don’t know if that is feasible,
especially with the number of children they are serving. . . Maybe ideally it would be a nice model, but with the numbers we have to work with, that model may not be realistic.” Some general education teachers, special education teachers, and the principal recently visited schools in Victoria, B.C. in an effort to learn about an existing inclusion program. The resource room teacher was relieved that the Victoria program was not vastly different from the program at this school. They did, however, have greater inclusion of severely handicapped students in their home school. Another teacher noticed, “I think they [the team that traveled to Victoria] felt relieved that maybe they were doing the right thing.” One general education teacher summed it up, “What they’re doing in resource is not necessarily bad or anything, but you know, I think there are other options that we could look at to kind of pull it together a little bit more.” Broad themes emerging from the combined interviews are presented in Table 2.
Discussion

Regarding the merging of general and special education through the perspectives of DAP and inclusion, most participants conveyed the need to "pull it together a little more." No one expressed feelings that the system was broken or in need of major repair, but all seemed open to using new information to continuously improve their service to children and facilitate the convergence of these two paradigms, which are compatible with the team's vision. This discussion emphasizes how the current practices are in accord, or discord, with the team's vision. We extract elements of either DAP or inclusion that seem not to be explicated in practice and offer insights that may explain why complete attainment of restructuring goals remains elusive. We use our own and teachers' insights to interpret the significance of themes that emerged and suggest next steps for this school. Though this study focuses on only one school's experiences, we offer insights into the complexity of these reforms which will be useful to other schools involved in or contemplating similar restructuring efforts.

Converging Paths

DAP and inclusion are two distinct paradigms from separate disciplines, and their paths are converging in this primary program, though more in thought than in practice at this point. We noted earlier that leaders from both ECE and ECSE (Wolery & Bredekamp, 1994) believe convergence can be achieved through collaboration among the disciplines. Several researchers have outlined elements of the readiness for change related to successful implementation (Gersten & Woodward, 1990; McLauaglin, 1990; Semmel et al., 1991). Our data suggest that there
are additional considerations of importance to a successful merger of these reform efforts at our study site.

The groundwork has clearly been laid at Northwest and teachers are ready—they are in fact deeply involved in an ongoing restructuring process. Several citations in our literature review focused on the importance of ownership of the change, that real change occurs in schools as a result of grassroots commitment rather than top-down mandates (McLaughlin, 1990; Vaughn et al., 1994). Those conditions were clearly addressed in teacher interviews. Some authors highlighted the importance of a shared language, dialogue, reflection, collegial regard, and time to let things happen (Gersten, 1990; Miller, 1990). Many references alluded to the development of a partnership between general and special educators as a prerequisite to implementing an inclusion program (Banerji & Dailey, 1995; Gersten, 1990; Maheady & Algozzine, 1991; Roach, 1995; Vaughn, et al., 1994). Our data clearly reflect the growth and development of such a partnership based on shared commitment to and understanding of restructuring goals and the underlying assumptions that support them. There is no doubt that these teachers value understanding both general and special education programs and the expertise each has to inform the other (Gersten, 1990; Miller, 1990). As one of the resource teachers stated, \"I'm not able to spend much time in the regular classrooms... when I do get a chance to go, I observe how the students we serve are doing... I get some idea of their life in the regular classroom... it makes a lot of sense to spend time collaborating with our peers... we just don't know how to do it... it's time constraints that keep us from doing more.\" One of the general educators expressed a
commonly mentioned notion of sharing expertise in hopes of improving practice, "To allow teachers, not just classroom teachers but specialists, to be able to go on walk-about around the school and see what's going on in the other classrooms, rather than just talking about it at a meeting."

It is apparent that DAP and inclusion can not converge without structural changes that diversify ways in which special education resources are brought to bear on the instructional programs for students at Northwest (Johnson & Johnson, 1992; McLean & Odom, 1993; Wolery & Bredekamp, 1994). Tindal et al. (1993) alluded to the necessity of creating an adaptive learning environment in which general and special educators merge their knowledge, technical expertise, and resources in service to individual children’s needs. There is clearly incongruence between vision and practice in regards to serving mildly handicapped children in the general multi-age classroom at Northwest. Emerging collaborative efforts between general and special educators have not yet resulted in coordination of programs. As one teacher said, "There's a real missing link . . . with the resource and the regular classrooms."

Teachers’ perceptions of the reasons for this missing link seem to be evolving as they restructure and discuss options. Initially it was a function of separate systems operating in isolation, as reflected in comments by several teachers in response to the December interviews. "I really don’t need to know specifically what they’re working on the resource room." "I don’t pay much attention to the IEP goals. They are addressed in the resource room because they are the ones that implement them." "I don’t know exactly what they [resource teachers] are doing." The evolved
"separateness" of special and regular education is well documented in the literature (Baker et al., 1995; Banerji & Dailey, 1995; Lipsky & Gartner, 1995; Will, 1986; Zigmond & Baker, 1995).

More recently, the perceived reason for the missing link is a lack of collaboration time and too few human resources to meet the needs of so many students—both barriers to inclusion that have been frequently cited in the literature (Gersten & Woodward, 1990; Major, 1992; Roach, 1995). What is clear from the data are the goals of this team to increase the coordination between programs and solve the dilemma created by the school's exclusive use of a pull-out service delivery model for special needs children in the context of a developmental program intended to accommodate individual differences.

Are these teachers' practices aligned with their vision? Not yet, particularly as they relate to features of individual appropriateness necessary from both DAP and inclusion perspectives. Some of the barriers identified, particularly time and resources, are major obstacles to overcome. It may also be true that the general education classroom, by its very nature a group-oriented environment, is in itself a barrier to the capacity of regular educators to meet the full range of academic variability in a typical classroom (Zigmond & Baker, 1995). Based on what the literature brings to bear on the change process and this team's commitment to implementation, this team may achieve its goals over time—at least insofar as the learning environment has the capacity to meet the needs of individuals.
The State of DAP at Northwest

Constructs of DAP suggest a learning environment that includes all children through sensitivity and responsiveness to dimensions of both age appropriateness and individual appropriateness (Bredekamp & Rosegrant, 1992, 1995). Sensitivity to individual variation among children of a similar age is a cornerstone of DAP in theory. Teachers clearly demonstrated such sensitivity in their interview responses regarding the types of adaptations they make frequently for varying student needs. Consider this statement, for example, which is indicative of a number of similar teacher comments: “We make adaptations for all the kids—constantly.” However, most of the adaptations teachers reported making were aimed more at fitting the child to the group (i.e. “he uses the same worksheet as the rest of the class, but I don’t expect him to complete it”) than modifying the curriculum or instruction to fit the child (i.e. use of a different reading program for a specific child).

Though sensitivity to variation is documented in teachers’ comments about adaptations they make and challenges they face, our results do not show clearly how teachers plan to accommodate the variance. It is responsiveness, not sensitivity, to the individual variation that seems elusive in practice. Only two of the teachers interviewed mentioned curricular adaptations that appeared to be aimed at adapting the learning environment to the individual child. When responsiveness to individual variation suggested procuring additional resources (i.e. carpeting the room, making sure a child gets glasses), rather than change in teaching, it seemed more likely to occur. As noted earlier, the failure to mention adaptations made in the lesson planning process prior to implementation is telling. We can infer that
teachers' lack of time to plan for individual needs diminishes their capacity to actually do so, and may contribute to the frequency with which they make adaptations as "needs arise." This insight is congruent with findings of Schumm et al. (1995) who stated that "If general education teachers are going to make accommodations for individual student needs, our research suggests it will occur 'on their feet' and will be incidental (i.e. at the interactive planning stage)" (p. 350).

The DAP classroom reflects differentiated curricular goals and objectives based on individual needs in an environment that, though structured, fosters active engagement of students in their own learning. In light of the inherent variance of student abilities in a typical multi-age classroom, teachers must make curricular adaptations if all children are to be included in and benefit from the academic program as described by Bredekamp and Rosegrant (1995). As noted, teachers rarely reported curricular adaptations when we interviewed them. They appeared to rely on the capacity of open-ended activities and their ability to differentiate expectations to achieve accommodations for individuals. The curriculum and instruction that we observed, and that teachers reported, was largely undifferentiated—students were engaged in the same lessons, with the same materials, at the same time. This finding corroborates findings of others that regular classroom teachers rarely make significant adaptations for individual students in lesson planning (Fuchs, Fuchs, Hamlett, Phillips, & Karns, 1995; Schumm & Vaughn, 1995; Zigmond, 1995) and frequently have difficulty implementing adaptations they select (Jenkins & Leicester, 1992). The focus on open-ended activities implies a belief and hope that all children will benefit but in unique ways. These teachers' adaptations in response to
individual variation apparently accommodate participation in the mainstream, but it is not clear that they accommodate achievement of specific, individualized learning goals.

Teachers in DAP classrooms use ongoing and varied assessments to inform decision making. This is an integral feature of the transformational curriculum strategy recommended by DAP advocates and the NAEYC—a strategy that hinges on interactions between teacher, student, curriculum, and instruction. Frequent monitoring of student response to activities is clearly a part of this strategy, which the teachers in this study implement routinely. This is suggested by such comments as, “It’s more evaluating, just getting a feel for her frustration level. . . gauging day to day what level of performance she’s at.” Assessment in a DAP classroom must also yield achievement and performance data that is used to design, monitor, and adapt instructional programs of individuals. Teachers’ comments show that they value and use curriculum-based measures as indicators of student progress. Several referred to “red flags” or “alarm bells” when CBM data reflected less growth than expected and suggested this would cause them to consider modifications of instruction for individual students and/or groups. Teachers’ response to CBM outcomes validates frequent references in DAP literature related to the importance of linking curriculum and assessment and using assessment data for instructional decision making (Bredekamp & Rosegrant, 1995; Carta, Schwartz, Atwater, & McConnell, 1993; Tindal et al., 1993).

Teachers’ use of performance data to collaborate on setting IEP goals is another indicator of how they have embraced not only the philosophy but the
practice of DAP. Though teachers demonstrate their ability to use assessment in ways congruent with DAP theory, in practice it is used mostly to make generalized decisions about a largely undifferentiated instructional program and group lessons. Assessment is rarely used to develop individualized programs for students who do not have IEPs. This finding again seems related to capacity rather than will. The constraints of time available for developing individual programs and resources (both human and material) to implement them hinder teachers' ability to put their desires into practice.

The State of Inclusion at Northwest

Inclusive programs are usually part of a broader school reform agenda (Schattman & Benay, 1992). That is clearly the case at Northwest. Incorporation of inclusion as a reform strategy emerged as a consequence of, not as an antecedent to, the general education reform characterized by implementation of DAP in a multi-age program. Teachers' comments in the interviews presented provide an insight into the evolution of change among members of this teaching team, particularly as it relates to the perception that change in the relationship between general and special education is both imminent and desirable. For example, "I don't see a difference between what's happening now and what was happening 5 years ago. But there's a lot more talk about what we could be doing and a lot more questioning and searching for what we could do if . . . so I think we will see change." This comment substantiates Miller's (1990) contention that change in practice takes dialogue, reflection, and time. Both general and special educators' stated desires to collaborate
more and change how they work together are a result of the team's restructuring efforts around constructs of DAP.

The evidence presented clearly demonstrates this team's collaborative approach to problem solving in general, but data indicate only limited collaboration for purposes of designing individual programs based on comprehensive assessment data. This claim is supported by respondents' acknowledgment that such formal communications and processes are usually used only in conjunction with formal processes of referral and IEP development and review. For inclusion to be realized, this aspect of collaborative functioning will need to be formalized, and more systematic use of assessment data for development of individual instructional programs will need to be utilized as elucidated by a number of authors (Maheady & Algozzine, 1991; Schumm & Vaughn, 1995; Slavin, 1990).

Although several teachers said they shared responsibility for student progress with special educators, they frequently suggested that meeting IEP (academic) goals was primarily the responsibility of the resource room teacher. An inclusion program would not make such clear distinctions between roles and responsibilities, and all aspects of the IEP would be addressed directly by all involved in the child's instructional program (Falvey et al., 1995; Roach, 1995; Schattman & Benay, 1992).

Finally, in an inclusion model, adaptations within the general education setting accommodate individual needs and make use of systematic arrangement of specialized support. The problems associated with the individually appropriate dimension of DAP are explanatory in relation to inclusion as well. They take on considerable importance when considered in light of legal implications of the IEP
and the school’s responsibility in monitoring the student’s performance relative to the agreed upon goals.

**Next Steps at Northwest**

As a result of the incongruence between the school’s vision and practice—particularly as it relates to individual appropriateness of instruction, broadly construed to incorporate setting, materials, strategies, and individual performance goals—and their commitment to DAP, this team has a dilemma to resolve. The following suggestions describe a useful starting point for development of an action plan the team could consider. First, teachers need to explore strategies that enable them to be more responsive to individual variation among students in the multi-age classroom. Based on our understanding of change processes, they should be prepared to support each other and share expertise they have in understanding individualizing strategies. They could utilize a peer coaching model (Gersten, 1990; Gersten, Morvant, & Brengelman, 1995; Showers, 1990) to facilitate implementation and evaluation of new strategies given necessary time and support from the administration. They also need to determine which aspects of DAP and inclusion they need more information about and explore learning opportunities to accommodate their needs. Interview data suggest developing greater understanding of the potential of curriculum-based assessment strategies to inform their practice relative to individuals as a starting point for study. Finally, teachers should enlist administrative support to assess how special education resources are currently utilized at the school so they can explore options which may contribute to their
capacity to address individual needs of specific children in flexible ways, including determination of placement and service alternatives.

Implementation of school change is never an easy process, and there is no question that it takes time. Our study indicates that the primary team at Northwest School has achieved some of its restructuring goals while they continue to strive for others. Continued focus on increasing the capacity of the general education environment to meet individual needs will be critical to their success. Though we can not generalize our results beyond Northwest School, insights into the complexity of implementing DAP and inclusion will be useful to other schools involved in similar efforts.

Recommendations for Further Study

Though many groups and individuals are advocating for both reforms addressed in this study, DAP and inclusion, there is little empirical evidence to support their efficacy relative to students' academic performance and growth. Many of the advocates of DAP and inclusion are calling for empirical studies that illuminate aspects of the learning environment that are positively related to student achievement. Efficacy studies that examine instructional variables, rather than setting-bound variables, will be of particular use to practitioners.
Author Note

Gerald Tindal, Behavioral Research and Teaching; Nancy McCullum, University of Oregon.

Publication of this paper was supported in part by the U.S. Department of Education, Office of Special Education Programs, grant number H023R30026. Opinions expressed herein do not necessarily reflect the position or policy of the U.S. Department of Education, and no official endorsement by the Department is implied.

This study was completed with the help of Jean Marr and Nancy Bell, both of whom were instrumental in conducting interviews. The teachers in this study also should be acknowledged for their support of our research and their pursuit of best practices.

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Converging Paths of DAP and Inclusion

References


Converging Paths of DAP and Inclusion


Figure 1. Sample of Semi-Structured Interview Protocol (December)

**Interview Questions**

Why did you select _____ as a target student? What are his/her special needs? How unique are these needs? Tell me about his/her Individualized Educational Plan (include areas you are addressing and describe areas served entirely by special education).

What is _____'s daily schedule like? In what groups (or levels of materials) is she/he participating? Describe these groups or materials.

What is _____'s skill level in math, reading, and writing? Describe important strengths and areas to address as you review portfolio/work samples.

What are some examples of adaptations you make for her/him in your classroom? What kinds of resources and support services do you need for the child to meaningfully participate?

Describe communications/consultations you have had about this student. With whom do you generally communicate and about what issues?

**Issues (ask only for one student)**

What are the greatest challenges you face in meeting the needs of individuals in a multi-age classroom?

In what ways is teaching in a multi-age classroom different than teaching in a single grade classroom?
Figure 2. Sample of Semi-Structured Interview Protocol (March)

Interface: General and Special Education

Teacher:

How long have you taught at this school? _______ (years)

How many years in general education? _____

How many years in special education? _____

Tell me about the model of special education at _______ school.

(Prompt: Referral processes, assessments, placements, delivery of services, communication, consultation)

Do you think there are students in the resource room program who might be successful in the regular classroom with individualized support?

For students who are mildly handicapped, such as those with specific learning disabilities, what special education services are available/used in this school? (Prompt: range of placement/service options)

Tell me about evaluation of students and programs. In what ways are student progress and achievement evaluated? In what ways are educational programs evaluated at this school?

How would you describe the coordination between general and special education programs and educators in this school?

In your opinion, are there barriers and facilitators to optimal communication and coordination of instructional programs between general and special education in this school? If so, how would you describe them?

What impact has the school reform movement had on mainstreaming/inclusion of special needs students?
Figure 3. Description of Performance Variance in Oral Reading Fluency

Descriptive Statistics
Split By: Gr

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<th>Std. Dev.</th>
<th>Std. Error</th>
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<th>Minimum</th>
<th>Maximum</th>
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Results for totals may not agree with results for individual cells because of missing values for split variables.
Table 1. Adaptations Reported by General Education Teachers

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<th>Adaptation and Descriptors</th>
<th>Narrative Support - Teacher Comments</th>
</tr>
</thead>
</table>
| Seating - proximity to teacher and others (11) | Turn her chair to face me [the teacher]  
Intentional seating  
I have her close by so she can watch me  
Physical structure of the seating arrangement  
Sit with him at centers  
Sit facing me so he can lip read  
Put capable student next to him  
Seat him away from a particular friend |
| Grouping Patterns - 1:1 tutoring, “buddy” help, Parent help, etc. (21) | Extra time in a 1:1 teaching situation  
Carefully configuring small groups that work together  
Team her up with other kids  
Put her with a partner  
I have parents come in and help/peer tutoring  
Fourth graders come in and listen to him read  
Has a reading buddy during silent reading |
| Modified Tasks or Expectations - different materials, do less on same assignment, different assignment (40) | Use manipulatives  
Use computer programs that provide incentives  
Use computer for writing assignments  
Reduce the amount of work completion expected  
Give him options  
Open-ended activities ... allow range of responses  
Uses the same worksheet as the rest of the class ... is not expected to complete it  
He can dictate to me and I write it  
Pick shorter reading passages for him  
Read aloud with him-you’re in charge of filling in the words I leave out  
Aide uses Flair (reading program) with him and other low students  
Make centers more structured and keep them longer  
SP has a behavior card |
| Prompts and Cues - verbal cues, notes, check in with more often, etc. (17) | I check in with her more often  
Write on sticky-notes for her to copy  
More eye contact  
Compliment him, let him know ...he’s making progress  
I remind her  
I use a lot of patterning when we do writing so he has a crutch |
| Additional Resources - devices such as hearing aids, human resources (5) | Classroom aide came specifically to work with him  
Made sure CM got glasses  
Carpeting the room ... to muffle noise |

The number of times each type of adaptation was mentioned in the December interviews regarding 12 specific target children is in parentheses after the descriptor.
| Communication Between General and Special Educators is Unsystematic | “Sharing back and forth—we share both concerns and successes.”  
“It’s casual, it’s not like any kind of a formal. . .”  
“I check in with LL [resource teacher] informally about how she’s doing . . .”  
“No curriculum sharing”  
“During conference time”  
“Whenever we can find the time. . .”  
“We communicate on an as-needed basis. . .”  
“Unless it’s for a referral, or an SST [or TAT] our collaboration is informal.”  
“. . . we have an IEP [meeting] every so often . . . she’ll sit down and ask me, ‘well what do you think about this goal, do you think that this is realistic for this child?’ and we really as a team decide what’s appropriate for the kid. . . the teachers are active participants in goal setting.”  
“We don’t have a specific meeting set up or a time to sit down, you know, and not anything formal, but I check in with them a lot” |
|---|---|
| Separate General/Special Education Systems—Currently Pull-Out model | “I can’t recall where I have had them qualify for resource and then being kept in the regular classroom.”  
“It’s hard to find a common ground, where the child can make that link between what they are learning in those two settings [resource room and general education classroom]. . .” |
| Little Influence of General School Reform on Special Education Practices—Belief that Change Is Imminent | “I don’t see a difference between what’s happening now and what was happening five years ago. But there’s a lot more talk about what we could be doing and a lot more questioning and searching for what we could do if . . . so I think we will see change.”  
“I think the impact been real slow. I think we have done a lot of different changes and adapting, and I’m not sure that the special ed part of the program has really changed that much, and they are feeling that they probably should be changing.”  
“I don’t think it’s done a whole lot, made a lot of difference at our school because we’ve been trying to mainstream as much as possible.”  
“I’m not sure that the special ed part of the program has really changed that much, and they are feeling that they probably should be changing, and then we’re feeling, I don’t know we just want to try and pull that together a little bit more.” |
| General Education Teachers Make Adaptations for Individuals | “Primarily naturally occurring”  
“I make moderate adaptations for N S. It’s more evaluating, just getting a feel for her frustration” |
| Challenges to Meeting Individual Needs | “...it’s a challenge to me to meet all of their needs on their level. And I think it requires additional resources...”  
“The spread academically of where kids are...”  
“I have more at the low end and more at the high end... in math there’s a little more overlap [between second and third grade skills]... but reading and writing are very polar.”  
“Real ranges as far as their ability, from kids that are pretty much beginning readers... to kids reading at a fifth grade level, so trying to meet all their needs with that vast range and having 27 kids is difficult.” |
| Belief that Full-Time Regular Classroom Could be an Appropriate Placement for Students with LD with Support | “Yes. Definitely, you know I am really excited about trying that.”  
“If they had individual support, I think they’d do fine.”  
“It would depend on the student... it’s a definite possibility.”  
“If we had our way, we would use the inclusion or ‘push-in’ model at every opportunity.” |
| Shared Accountability for Student Progress/Use of Assessment Data | “At this school, it’s *our* kids.”  
“I like the way LL [resource teacher] does it [develops IEP].... she doesn’t just sit down and write the goals without consulting me.”  
“I feel like it’s a joint effort and a joint responsibility.”  
“I don’t feel like it’s all the special ed person’s job to fulfill his needs.”  
“If the child is not progressing [on comprehension measures], I’ll modify instruction—give him more sequencing activities, etc.”  
“It [performance data] causes me to talk with parents, try to get them maybe practicing more at home. Eventually doing a TAT, and filling out paperwork.” |
| Barriers to Inclusion (Time, Resources, Class Size, Facilities) | “We have too many classes being served by too few support people...”  
“The resource teacher has asked so many times to be able to come in our rooms and see how we teach reading. There’s just no time for her to do that and vice versa. I would love to be able to go in there and see what strategies they’re using with my kids... to see what their effective teaching methods are. And I can’t go in there, so I can’t see it...”  
“Maybe, ideally, it would be a nice model, but with the numbers we have to work with, that model may not be realistic...” |
| Facilitators to Inclusion (Communication, Skilled Personnel, Time to Collaborate) | “I think that between the programs and educators, I think, at least with our primary team we meet a lot and talk and plan together, so I think that that is real helpful, and having our Wednesday afternoons is real beneficial.” “People here try to solve problems, so they find a time and work out a way to accomplish this [communication].” |
| Perceived Benefits of Multi-Age Model | “I love the relationship, the bonding that you get that second year. I love the relationship you make with the parents that second year. I love being able to start teaching in September instead of October when you finally get to know the kids.” “…he’s so much better [behaviorally] this year than last—like night and day. That’s why it’s so good to have non-graded primary—you can have students for 2 years.” “I’ve got some, quite a few, little third graders that are taking on leadership roles because they know they’re older kids, and that’s good.” “There’s a lot of overlap [in skills between grade levels]. I’ve got some second graders that are getting up there in some areas and there are those still needing a lot of support in others. Funny how they’ll spike in different places.” |