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Kindergarten Readiness Assessment:
An Analysis of Existing and Recommended Practices

Abstract

Research Findings: Kindergarten readiness is being assessed and used to make decisions about children entering school. The literature in this area has highlighted both controversies and uncertainties about this type of assessment, but, with or without the guidance of research, kindergarten readiness assessment and screening continues to occur. Organizations and researchers have laid out recommendations on some aspects of assessing school readiness, but very little research has been conducted on other areas of school readiness, including the actual practices in schools today. A survey of teachers in a Midwestern state examined how and why schools are assessing kindergarten readiness. Within a decision-making framework, the survey results are presented and discussed in terms of their comparison with practices that are recommended in the literature. *Practice/Policy:* Several hypotheses for the current state of kindergarten readiness assessment practices are made, and the resulting implications for practitioners, policy-makers, and researchers are presented.

Kindergarten Readiness Assessment:

An Analysis of Existing and Recommended Practices

A child's academic success begins before his or her first year of formal education. Children enter kindergarten with vastly different family backgrounds, educational experiences, and capabilities, which significantly affect their early school education (Magnuson & Waldfogel, 2005). In response to these differential starting points, and with greater accountability requirements, many schools assess children prior to or at the beginning of the kindergarten year to determine their readiness for school. While the assessments may take different forms from school to school, their collective purpose is to get a picture of children to guide decision making concerning placement, the need for additional services, special needs, and instruction. The challenge for schools is that there are divergent opinions about how to assess school readiness, and in doing so, what specifically should be assessed.

While school readiness is commonly assessed in school districts across the country, there is little consensus among experts on what it means or should entail (Kagan, 1990). Our more recent review of the literature in preparation for this research found numerous opinions and recommendations, but little formal research to identify evidence-based practices. Also, we found little research that describes current practices among states and local communities. In one study, Costenbader, Rohrer and Difonzo (2000) conducted the second of two in-depth analyses of New York State, surveying public and private school districts in New York about their procedures and assessment instruments. (The first was conducted in 1992 by May and Kundert.) Fifty-one percent of the 755 school districts they surveyed responded. In this survey, respondents were asked about the characteristics of the school district, such as the setting, the average number of children screened each year, the number of children who had attended preschool prior to

kindergarten, and the special services available to children entering kindergarten. Respondents were also asked to describe their district's kindergarten readiness screening by indicating whether assessments were conducted individually or in groups, how much time was spent on each child, who was on the assessment team, and which assessment tools were used. Additionally, respondents indicated what took place when children were identified as "at risk," along with their personal satisfaction with the screening procedures. This survey revealed that 30% of the districts classify their screening measures as locally constructed, while 55% of the respondents used one of three published measures. Teachers, speech/language therapists, and school nurses were frequently involved in the assessment, while school psychologists, paraprofessionals, and social workers were included to a lesser degree. Despite the questionable technical adequacy of the kindergarten screening measures used, respondents reported high levels of satisfaction from the assessment process (Costenbader, Rohrer & DiFonzo, 2000).

From our reviews and this single study of one state's practices, there are a number of questions facing practitioners interested in assessing school readiness. These questions, presented in Figure 1, framed both our review of the literature, and our research into existing school readiness practices in one Midwestern state.

Definitions of School Readiness

How one defines school readiness has significant implications for what and who is assessed and how that assessment information is used. Definitions of school readiness have varied greatly in the literature. An early but still influential definition of school readiness focuses on the innate qualities of a child (Ilg, Ames, Haines & Gillespie, 1978). Through this model, school success or failure is based exclusively upon the child's maturity and level of

development, which is commonly measured using developmental assessments. Thus, if a child is not ready for school, the best thing to do is to give that child more time to mature and develop.

Another common definition of school readiness looks at the competencies children should have when they enter school (Kagan, 1990), including academic and cognitive skills, language and literacy abilities, and social-emotional functioning, which are vital to later school success (Mashburn & Pianta, 2006; Snow, 2006). In this model, children are ready for school if they possess the necessary competencies. Pianta and La Paro (2003) advocate for an environmental definition of school readiness, one that focuses on the cumulative experiences children have rather than weaknesses (or lack of competencies) within children. This places the responsibility of school readiness outside of the child, suggesting that all children are ready to learn and they need the opportunity to learn the skills which are necessary for school. By placing their children in situations where they are exposed to new activities and experiences, parents are preparing their children for the new opportunities that children will face in school. Pianta and La Paro (2003) state that school readiness might better be understood as a product of interactions and experiences children go through on the way to school. Despite the lack of convergent definitions (Kagan, 1990), there is agreement that the skills a child has when he or she enters school are highly correlated with later skills relating to school success (Snow, 2006).

How Will School Readiness Assessment Data be Used?

The literature has much to say about how educators should and should not use assessment information. Saluja, Scott-Little and Clifford (2000) summarized and outlined four policy statements on how young children should be assessed, representing the work of eight professional organizations. These statements contained similar information, and the summarized findings of this consensus shows that readiness assessments should:

1. benefit both the children and the adults involved,
2. be used for their designed purposes,
3. have appropriate validity and reliability,
4. be age appropriate, and use naturalistic observations as children interact in “real-life” situations,
5. be holistic, and obtain information on all developmental domains (physical, social, emotional, and cognitive),
6. be appropriate both linguistically and culturally,
7. collect information through multiple processes and sources (collection of children’s work, observations of children, interviews with children, parents reports, etc.), and
8. be used to guide instruction, rather than to determine children’s placement in school.

In regards to the second point, the purpose of readiness screenings and assessments are not always readily evident. Salvia and Ysseldyke (1991) define the purposes of readiness tests as being able “to predict who is not ready for formal entry into academic instruction” and “to predict who will profit from either remedial or compensatory educational programs in which readiness skills or processes are developed” (p. 471). In a report for the National Education Goals Panel, Shepard, Kagan and Wurtz (1998) identify the main purposes for assessment: To support learning, to identify children with special needs, to evaluate programs and monitor child trends, and to use for high-stakes decisions. Although test creators explicitly state the purposes of readiness tests in order to make sure results are used correctly, practitioners do not always use these. For this reason, research and recommendations often specify what tests should *not* be used for as a safeguard against inappropriate use of assessments. In particular, assessments should not be used for other than their intended purposes due to their limited generalizability (Pyle, 2002);

and assessments designed for instructional planning should not be used to make high stakes decisions about student placements (Shepard, Kagan & Wurtz, 1998).

How will School Readiness be Assessed?

In an analysis of best practices in kindergarten readiness assessment, Pyle (2002) compiled a number of recommendations and suggestions. One such recommendation is that information about a child should be gathered from a variety of sources in order to determine readiness for school. In addition, technical adequacy of measures is an important component of assessment, though few individual screening measures possess adequate levels of reliability and validity to make appropriate early identification decisions. The most accurate method proposed by Pyle seems to be an ecological model, containing both multiple gates and multiple raters. In this type of model, children are assessed by several people (raters), and decisions are made based on different types of building information (gates). Although Pyle refrains from recommending specific instruments, purposes, or processes for assessment, she stresses the importance of carefully analyzing each decision based on the intended use of the results.

Another challenge facing practitioners who wish to assess kindergarten readiness concerns the selection of valid and reliable assessment instruments. It is important to note that although they identify high stakes decisions as a purpose for assessment, Shepard, Kagan and Wurtz (1998) describe the high levels of technical adequacy of assessments for this type of decision. Since assessments for young children often do not meet these standards, they recommend that assessments for high-stakes accountability decisions not be conducted until children are in third grade. A recent focus on curriculum-based measures has led to the development and use of these types of readiness screenings. While measures like this are popular because they tend to be short in length and easy to administer, there is very little research on the

technical adequacy of these assessments (VanDerHeyden, Witt, Naquin & Noell, 2001). In addition, because of the skills being assessed in such a quick manner on many current assessment tools, a number of currently available readiness assessments have no reliable prediction of children's school success (Ellwein, Walsh, Eads & Miller, 1991; Smith, 1999). Combining this preponderance of inadequate assessments with the fact that school districts make high stakes placement decisions based almost entirely on the results of one brief assessment measure (Gredler, 1997), the state of kindergarten readiness assessment is an important one to consider.

Along with the challenges of selecting assessments that both address the purposes for assessment and have appropriate technical adequacy goes the issue of selecting methods that are useful for all children. Students enter formal schooling with a variety of backgrounds and risk factors, such as differences in early educational experiences, physical and mental disabilities, and language differences. With such a diverse group of children, universal assessment procedures should be chosen that are applicable and beneficial for all groups of children (Snow, 2006).

Who, When, and Where of School Readiness Assessment?

Other analyses on screenings for young children (Gredler, 1997; Gridley, Mucha & Hatfield, 1995; McLoughlin & Rausch, 1990) address some of the logistical issues surrounding school readiness assessment. In terms of who should be involved, it is recommended that school psychologists be a part of the kindergarten screening process because they have been trained in assessment and test interpretation (Gridley, Mucha & Hatfield, 1995; McLoughlin & Rausch, 1990). While she does not name specific professionals, Pyle (2002) also urges practitioners to utilize several individuals besides the teacher to ensure that there are multiple raters of child behavior. In addition, the timing for conducting school readiness assessment is a critical factor. Unpredictability in young children's behavior may create a dilemma for school professionals

seeking to assess school readiness 6 months before school entry, since children can change rapidly (Gredler, 1997). Testing that occurs months before school entry may reflect behavioral problems which are no longer present when school begins. Although behavior is still variable once school begins, its presence at that time better approximates the child's behavior during the school year. Thus, it is recommended that children go through an adjustment time of at least three months in the school building and with a new teacher before behavioral screening measures are used (Gredler, 1997). This conflicts with kindergarten readiness assessment that takes place prior to school entry, often used for placement and services of children. Although Gredler recommends a waiting period before assessing children, he does not provide any answers for those practitioners seeking to assess children prior to school for these types of services.

Implications for decision makers and practitioners

While research and policy statements have contributed to the general body of knowledge in this area, this knowledge has not been translated into clear policies and practices for decision-makers and practitioners. Saluja, Scott-Little and Clifford (2000) found that no state has a formal, statewide definition other than an age of eligibility requirement. Nationally, five states allow local districts to have formal definitions of school readiness, and another five states have developed frameworks or benchmarks around school readiness.

Without clear guidance, local school districts are often left to choose assessment methods and decide how obtained scores will be used. When state policy is vague and schools must individually interpret what it means on a building or system-wide basis, these interpretations may vary widely and criteria for kindergarten entry may differ dramatically across states (Wesley & Buisse, 2003). It is possible that current practices stem from a history of questionable decisions,

instigated by a responsibility to show accountability within programs (Mashburn & Henry, 2004).

Although the research on New York State, the recommendations on school readiness assessment, and the current legislation provide a backdrop for current practice, what is known is overshadowed by what is unknown about this existing practice. While nationwide research on the similarities and differences between state policies on school readiness has been conducted, the practices of only one state have been analyzed in depth. From this, we decided to investigate the school readiness assessment practices in another state and in a different part of the country, the Midwest. By expanding on Costenbader, Rohrer, and Difonzo (2000) through extension to another state and additional coverage of when screenings are taking place, the inclusion of diverse groups of children, and the comprehensiveness of the assessments being used, we hope to increase the body of research on the actual practices of school readiness. Additionally, after eight years have passed and a number of policy statements have been created, we wanted to once again take stock of if and how practitioners are utilizing recommendations. We also wanted to identify current practices for which there is little or no research guidance. By identifying areas in which research is lacking but school practices are prevalent, we hope to serve as a call for research in these areas.

Methods

Participant Selection

To conduct this study, the state's Department of Education's database was used to identify and request all public and private kindergarten teachers to participate in an online survey. Kindergarten teachers were targeted because earlier efforts by the investigators, including a previous survey, found that these individuals were almost always involved and often

were the only ones involved in conducting school readiness assessment. All individuals listed in the directory were then contacted via postcards and asked to participate.

Questionnaire design

The content of the questionnaire was developed by the authors, with guidance from the existing research in this area. The survey content was placed on Survey Monkey, so it could be viewed and completed online. The survey took approximately 20 minutes to complete. Several educational professionals familiar with early childhood assessment participated in testing the survey prior to its release on a statewide scale, so that questions were judged to be sufficiently clear and valuable. None of the participants included in the test development were included in the full sample.

The first page of the online survey consisted of an explanation of the study and information from the Institutional Review Board about voluntary participation in the study. By clicking on “I agree,” participants were directed to the beginning of the survey itself. The survey consisted of 12 questions, most of which had choices, along with an option for participants to write in unlisted answers. While questions about the participants’ perceptions of the assessments forced individuals to make one choice, participants were free to select multiple answers on questions about the logistical issues of assessments. Figure 2 presents the major questions asked on the online survey.

Field Procedures

A postcard about the study was sent to approximately 3500 individuals who had been previously identified through the directory. Each postcard contained a brief description of the survey, an invitation to participate with a special individual access code, directions on how to access the survey, which included the website address, and a thank you to participants.

Additionally, 2 weeks after the postcards were sent, follow-up email messages were sent to all elementary school principals listed in the Department of Education directory, asking them to remind the kindergarten teachers in their schools to participate. This was done so newly hired teachers, who may have been missed in the initial contact, would have a chance to participate.

Since paper invitations were used to invite teachers to access the online survey, data collection was anonymous. Teachers had the option to enter their email address if they wanted to receive a copy of the results. At the close of the survey, these email addresses were separated and stored apart from the survey results.

Response rate and sample characteristics

Though we contacted 3500 teachers, 278 individuals participated in the study, which was an 8% response rate. Survey participants came from 148 of the 292 (51%) school districts in the state, along with 8 private schools. Twenty-four percent of the survey participants taught in urban schools, 32% taught in suburban schools, and 42% taught in small town or rural schools. No other demographic data was collected from survey participants.

Data Analysis

Descriptive statistics were compiled and analyzed using SPSS, a software package used for research in the social sciences.

Results

Of the respondents, 75% (209 individuals) reported that they assess children's readiness for entry to kindergarten and school. Further results describing their school readiness assessment practices will be presented in response to the major questions framed earlier in Figure 1.

What Were the Purposes for Assessing School Readiness?

Kindergarten teachers were asked to report how the results from school readiness assessments were used, both in terms of placement decisions and curriculum/instructional planning decisions. In terms of placement, 44% of teachers reported using the assessment results to make what could be considered *high stakes* decisions including recommendations to parents that children delay kindergarten entry (34%), or children enter a developmental or transitional kindergarten (19%) or a special education classroom (11%). Thirty-nine percent of respondents said they used kindergarten readiness assessment scores to determine which children should participate in full and half-day programs. Alternately, 32% of respondents noted that they use the information to create *heterogeneous* classrooms and 28% of respondents said that these scores have no influence over placement for children.

Assessment results were also reported to influence classroom planning for students. A majority of the respondents reported using assessment information to inform families about what they can do at home (77%) and to plan their curriculum and instruction (76%). Test results were also used to monitor children's progress (75%), identify the needs for additional resources, such as special education, health services, and social services (74%), determine learning groups (58%) and inform families about placement and educational recommendations (51%).

Who was Assessed?

Kindergarten teachers were asked to indicate to what extent different groups of children were included in their school readiness assessment practices. A high percentage of the respondents reported that diverse groups of students were fully included. Well over 90% of the kindergarten teachers reported fully including children whose first language was not English (93%), children with physical or sensory disabilities (95%), children whose parents did not speak or read English proficiently (96%), children with language or communication disabilities (97%),

children with mild developmental delays or learning disabilities (97%), children who were gifted (98%), children who came from families that place them at risk (99%), and children with no previous early education experiences (100%). Slightly fewer kindergarten teachers (86%) indicated that children with significant developmental delays or disabilities were fully included.

When asked how well their assessments worked in making decisions for these different groups of children, respondents reported their observations on a four-point scale, from 1 (poorly) to 4 (very well). On the average, kindergarten teachers reported that their assessment tools worked *fairly well* for most of the nine groups surveyed, including children with language or communication disabilities (3.01), mild developmental delays or learning disabilities (3.05), significant developmental delays or disabilities (3.05), gifted (3.01), and children with no previous early education experience (3.21). Kindergarten teachers indicated that their school readiness assessments worked slightly less than fairly well for children who came from families that place them at risk (2.86), whose first language was not English (2.78), with physical or sensory disabilities (2.81), or whose parents did not speak or read English proficiently (2.75). See Table 1 for a complete list of the perceived inclusion and adequacy of the assessments for diverse groups of children.

What Skill Areas of Were Assessed?

When asked if their assessments addressed skills across multiple domains, respondents indicated which domains were measured and their perception of whether each domain measured was assessed adequately (see Table 2). Ninety-six percent of respondents indicated that they assessed children's skills in the domains of physical health and well-being and 94% reported assessing language and literacy. These domains were also perceived by respondents to be the most adequately assessed (85% and 80%, respectively). Cognitive and general knowledge was

assessed in the schools of 92% of respondents, with 70% believing the measures to be adequate. Motor development was assessed by 86% of respondents, with 55% believing the measures to be adequate. Respondent indicated their schools assessed social-emotional development and approaches to learning the least often, with 71% and 69% reporting assessment in these areas, respectively. In addition, fewer respondents indicated that their assessment measures for social-emotional and approaches to learning were adequate for making decisions (45% and 39%, respectively).

How was School Readiness Assessment Conducted?

When asked to specify how they assessed school readiness in children, survey respondents were able to select from six different methods: observation, parent report, use of teacher-developed checklists, commercial assessment tools, school-wide assessment tools, and reports from children's early care and education practitioners. Ninety-three percent of respondents indicated they were using teacher observation and judgment, while 75% of respondents reported using parent reports and checklists. The use of checklists created by teachers was reported by 65% of respondents, while checklists created by schools were reportedly used by 52% of respondents. Fifty-four percent of respondents indicated that they were using commercial assessment tools (see Figure 3 for a list of the commonly reported commercial assessment tools), and 37% of them used reports from the child's preschool or child care. Additionally, 68% of respondents reported that they used assessment procedures reflective of district-wide policies and procedures.

Respondents indicated that they used, on average, 4 out of the six different assessment methodologies ($M=3.75$). Just over 70% of the kindergarten teachers surveyed use a combination of 3-4 methodologies. The most frequent combinations were:

- teacher observation, parent report, and either commercial assessment or teacher checklists; and
- teacher observation, parent report, teacher checklists, and school-wide checklists and procedures.

Looking at the assessment methodologies used for each domain, along with how well the teachers thought they assessed that domain, clear patterns emerge (see Table 3). For Health and Physical Well-Being, most teachers reported using teacher observation and/or parent report (74% and 70%, respectively), and felt that their school assessed this domain adequately to very well (89% and 93%, respectively). For the Language/Literacy domain, most teachers reported using teacher observation (88%), with 87% of those teachers feeling that they assessed that domain adequately to very well. A little over half of the teachers reported using teacher checklists (58%) and/or commercial assessments (52%). Over 90% of those teachers using these two procedures indicated that this domain was assessed adequately or better (94% and 93%, respectively). For the Cognitive and General Knowledge domain, teacher observation was the primary choice (82%), but just over half of the kindergarten teachers also reported using a teacher checklist (57%). For the Motor domain, almost all teachers (92%) reported using teacher observation; however, only 65% of those teachers felt that this procedure assessed that domain adequately to very well. For the Social-Emotional domain, most all teachers reported using teacher observation (94%); however, only 66% of the teachers felt that this assessment procedure was adequate or better. Finally, most kindergarten teachers (92%) reported using observation for the Approaches to Learning domain. Just over half of the teachers felt their assessment of this domain using this procedure was adequate or better (56%). Other assessment methods were associated with higher rates of adequacy, but they were used by less than half the teachers.

Who, When, and Where was School Readiness Assessment Conducted?

When asked about who was involved in assessing school readiness, participants were able to choose from a list of seven choices: kindergarten teacher, school nurse or other health care professionals, speech and language therapist, school psychologist, other school personnel (e.g., paraeducators), parent volunteers, and other. Participants could make multiple selections to indicate all individuals involved in the assessment process. Kindergarten teachers indicated that on the average, there were three types of individuals involved in the school readiness assessment ($M=3.2$). More often than not, those three individual included the kindergarten teacher (97%), speech and language therapists (61%), and school nurses and other health care professionals (61%). Paraprofessionals were also frequently cited for their involvement (57%), with school psychologists (13%), parent volunteers (14%), and others (23%) less frequently identified. The list of individuals listed under “Other” generally included other teachers, notably Title 1 teachers, and other professional disciplines, such as an audiologist, or physical and occupational therapists.

Survey participants were asked to select among four options concerning when kindergarten readiness assessment takes place: Spring prior to kindergarten, Beginning of kindergarten, Summer events prior to kindergarten, or During preschool/child care. The majority of respondents (59%) reported that they assess children in a spring event prior to kindergarten. Forty-six percent of the respondents report assessing children at the beginning of kindergarten. Another 23% of respondents said that children are assessed for school readiness while they are in preschool or childcare setting, and 15% reported assessments during summer events prior to kindergarten. On the average, kindergarten teachers reported assessing kindergarten readiness 1.5 times each year. The majority of kindergarten teachers reported carrying out kindergarten

readiness assessment once each year (67%). A quarter of the teachers (24%) reported carrying out school readiness assessment two times per year. For the teachers who reported conducting kindergarten readiness assessment only once per year, most of teachers conducted it either during the spring before kindergarten (53%), or at the beginning of school (49%). For kindergarten teachers who assessed school readiness two times each year, the most frequent combination was during the spring and then again at the beginning of kindergarten.

Survey participants were also asked to identify where school readiness assessment was conducted. The overwhelming majority of kindergarten teachers identified their school or another school as the most common location (95%). Within their school, assessment occurred in the teacher's classroom and/or in a general location within the school (59% and 61%, respectively). Very few assessments occurred outside of the school building. When they did, they either occurred in a community location (e.g., church) or at the child's home.

Discussion

The goal of this study was to contribute to what we know about current practices in kindergarten readiness assessment. In addition, we organized the information into a framework for both practitioners and future researchers.

What is the purpose of assessing school readiness?

Survey results indicate that the majority of respondents are using readiness assessments to make appropriate decisions, such as making recommendations for parents, determining resources that will be necessary, and informing the class curriculum. Practices which have been encouraged in research, including placement of children into full-day kindergarten (Nelson, 2000; Plucker, Eaton, Rapp, Lim, Nowak, Hansen, et al, 2004), referral for special education services (Litty & Hatch, 2006), and the development of learning groups within the classroom

(McCoach, O’Connell, & Levitt, 2006; Tieso, 2003), were all reported uses of readiness assessment results. While many of the decisions have been supported in the literature, others are more questionable. One of the practices reported by one third of our respondents—recommending that child’s entry into kindergarten be delayed—has been significantly questioned in the research. This practice, known as red-shirting, has been correlated with increased behavioral problems (Graue & DiPerna, 2000), decreased likelihood of completing school (Angrist & Krueger, 1991), and heightened expectations in the typical kindergarten classroom (May & Kundert, 1997; Shepard, 1997).

Who was assessed?

This research looked only at the children that were included in school readiness assessment. We did not ask participants to indicate if their school readiness assessment practices included assessing families, the community, and/or their own school practices. One of the more positive findings was that most respondents included nearly all children in their assessment process. Including children from multiple family backgrounds and cultures, and including children with a wide range of disabilities, indicated strong efforts throughout the state to be all-inclusive in their school readiness assessment practices. Striving to be inclusive did not equate, however, with the respondent’s reports of how well they felt their assessments provided accurate and useful information for all groups of children. Generally, kindergarten teachers rated the quality of their assessments as *fairly well*—not poorly but not very well, either. Kindergarten teachers rated their assessments of children and families whose first language was not English slightly below *fairly well*. This last statistic most likely indicates the respondents’ concerns about the linguistic or cultural appropriateness of the assessment results for some students, and that is why their perceived efficacy is low.

What areas were assessed?

The majority of schools reported that kindergarten readiness assessments were generally comprehensive in nature, measuring the domains of physical health and well-being, language and literacy, cognitive and general knowledge, motor development, social-emotional development, and approaches of learning. While high percentages of respondents indicated that these skills were being measured, fewer kindergarten teachers reported that the quality of the assessment was adequate or better. Less than half of the respondents believed that the assessments for social and emotional development and approaches to learning were adequate, and only about one half of the teachers believed their assessment of children's motor skills was adequate. Since a national survey found that nearly half of kindergarten teachers were *most* concerned with children being able to follow directions in the classroom (Rimm-Kaufman, Pianta, & Cox, 2000), assessment measures for these areas should be improved across the state.

How was school readiness assessment conducted?

One of the more striking statistics of this study was the large percentage of kindergarten teachers reporting that kindergarten readiness is being assessed in their schools—75%. With such a high prevalence of this practice, examining how this assessment is being carried out and how well it reflects best practices in the assessment of young children is critical to the field of early childhood education. In this regard, the respondents in this study engaged in practices that are both promising and problematic. Among the more promising assessment practices reported included the high percentage of schools using multiple assessment measures, suggesting that schools may be utilizing the multiple gate, multiple rater system as recommended by Pyle (2002). By collaborating with families, schools are able to acquire information about the child in more natural settings. In addition, the high prevalence of teacher observations, informal teacher

assessment measures, and parent reports in school readiness assessment suggest that many schools recognize the importance of assessing young children, even without standardized assessment tools. The combination of assessments being used were frequently reported to cover all of the developmental domains associated with school readiness. It may be advantageous for teachers to create their own measures, since commercial assessments often under-represent the areas of motor development, social-emotional development, and approaches to learning (National Education Goals Panel, 1995; 1997).

When compared to what Costenbader, Rohrer, and DiFonzo (2000) reported on school readiness assessment practices in New York State, a larger number of locally constructed (teacher-created, school-created) measures are currently being used. The same commercial assessment measures were reported as the most popular instruments. Additionally, the assessment team composition appeared to be very similar. There do not appear to be any substantial differences between the practices reported in New York State eight years ago and the current practice in a Midwestern state.

The flip side to this data is the possible over-reliance on observation and teacher-developed measures that may lack the technical adequacy to make the kinds of decisions that are being made. In addition, a majority of the teachers reported that their measures of children's motor, social-emotional, and learning skills were not adequate in helping them to make decisions. This data may also highlight the underrepresentation of commercial tools for assessing skills in this area, as noted above.

Who, when, and where of assessing school readiness?

As one of the primary consumers of school readiness assessment results, it is logical that kindergarten teachers would and should be primary participants in the assessment process.

Nearly all respondents indicated that kindergarten teachers were the primary assessors in their schools. Joining the kindergarten teachers, although not at the same frequency, were speech and language therapists and health care professionals. The prevalence of speech and language problems at this age, and their impact on later literacy development, explains the importance of including speech and language therapists. School nurses are typically used in school settings to collect family health history information and determine if children's immunizations are complete prior to entry into school. Their frequent inclusion in the school readiness assessment process enables that information to be collected immediately. The less frequent use of other professionals (e.g., school psychologists) contrasts with recommendations in the literature that these individuals be included (Gridley et al, 1995; McLoughlin & Rausch, 1990). This study did not ask why certain professions were or were not included or about the specific roles included individuals took in the assessment process. For example, it might be interesting to learn more about whether school nurses are actually assessing motor development or if they are collecting health forms and doing hearing and vision screening in different schools.

Although nearly half of the respondents reported assessing children at the beginning of kindergarten, the majority of teachers reported assessing children in the spring before kindergarten. From informal conversations with kindergarten teachers, there are multiple reasons for engaging in spring *kindergarten roundups*. First is the ease and expense of providing a common, easily advertised time and location for families to visit the school and enroll their child. Second, it provides an opportunity for teachers, administrators, and families to meet and learn from one another in an environment that will become very familiar to the child and family. Finally, enrolling children in the spring also allow schools to make plans for staffing how many kindergarten sessions they will need on the first day of school.

On the flip side, assessing children five to six months before school entry might be risky, considering the unpredictability of young children's behavior (Gredler, 1997). This is compounded when taking into account that most all assessment takes place in the schools, which are unfamiliar contexts for young children at this point in their life. Taken together, the assessment results may be skewed. School districts that collected parent and early child care reports may successfully compensate for this by gaining a more multi-faceted look at children. There were a number of teachers that reported conducting school readiness assessment in both the spring and the fall. This combination may provide the *best of both worlds* of enrolling children in a timely fashion, introducing and informing families prior to school, and collecting assessment information about children closer in time to when it is useful.

How is school readiness defined?

While schools do not always explicitly define school readiness, the definition of this concept is in their assessment practices and decisions. For example, schools that use the results for their assessment to recommend children *sit out a year* are subscribing to a maturational perspective. Schools that stated that the assessment results were not used for placement decisions, but to guide their curriculum and instruction, reflected a more environmental perspective advocated by Pianta and La Paro (2003). Thus, it is imperative for schools to develop a clear idea of what they would like to measure, and how it will influence their decision-making. The decisions being made by schools indicated that definitions of school readiness vary throughout the state. Additionally, the choice of assessment instruments reflects a school's definition of school readiness. One important consideration is the prevalence of school and teacher-created measures. When individuals are constructing school readiness assessments, these instruments may reflect differing or even conflicting definitions of school readiness. When these

assessment measures are then being used for purposes that may or may not go along with the definition, it is easy to see how the idea of school readiness can become muddled.

How well do current practices reflect current research?

If the kindergarten readiness assessment practices look the same after 8 years despite nearly a decade of research and policy, one might be tempted to conclude that there is a lack of communication between research and practice. However, the difference in geographical location makes this comparison impossible to make, since there is no indication of where the current state's practices were eight years ago, or what the state of New York's practices look like today.

One hypothesis for why current kindergarten readiness assessment differs from recommended practices is that schools are facing increasing pressures in response to accountability measures and the downward extension of expectations for children (Shepard, Kagan & Wurtz, 1998). The focus of kindergarten has become increasingly educational and aligned with the learning standards and curriculum of later grades (Shepard, 1997). In response to this, schools and kindergarten teachers are realizing pressures for children to acquire the important academic skills that can make the difference between success and failure in later years, which impacts kindergarten content. In the face of these demands placed on schools, decisions made for individual children may be difficult to separate from decisions made to help the school meet expectations (Shepard, 1997). Viewed in this light, kindergarten readiness assessment may be both a response to and a method of precipitating the current system of accountability.

In addition, schools' may have limited capacity to carry out recommendations (e.g., conduct assessment in both the spring and the fall; conduct observations in child care and early education settings). The pressures faced by schools, combined with already tight budgets and limited time, may affect or limit what schools are able to do. For example, purchasing

appropriate commercial assessment instruments or staffing additional events or classrooms to facilitate assessment procedures may not be affordable.

Implications

A number of implications arise for individuals who influence school readiness assessment practices for young children, including practitioners, policy-makers, and researchers (See Figure 4). As the implementers of kindergarten readiness assessment, practitioners (teachers, principals, etc.) are ultimately responsible for implementing best practices. Therefore, it is important that practitioners maintain their knowledge of the literature in this area. Rather than simply choosing a method or tool because others have done so (i.e., traditions), practitioners should carefully consider their purposes for assessing kindergarten readiness and then make choices based on these needs. By carefully thinking about and systematically answering the questions framed in Figure 1, practitioners can be sure that they are being thoughtful of the choices and decisions they make in regards to assessment.

There are also implications for policy-makers regarding the current state of kindergarten readiness assessment. In addition to making decisions based on research, policy-makers should regard child readiness as one part of the puzzle, and continue to promote policy that strengthens families, community resources, and educational programs (Scott-Little, Kagan & Frelow, 2006). If leaving decisions to local administrators and practitioners, policy-makers should make it easier for practitioners to access research information, and thus make informed decisions. Statewide adoption or distribution of policy statements could help inform practitioners without creating explicit requirements for practitioners. In addition, professional accountability, with particular attention to the preparation and hiring of individuals in decision-making positions, even at the

local level, may positively influence school readiness assessment decisions and practices (Darling-Hammond, 1990).

Implications for researchers stem from the lack of research in many areas relating to school readiness assessment. If practitioners are to have a research base from which to draw from, there must be a strong base of knowledge. The existing literature should be increased so that high-quality research exists in this area. Numerous articles and studies have highlighted the differences in definitions of school readiness and how current testing practices are inadequate, but this does not positively influence what is actually occurring in schools today. When practitioners have research to draw from, they are more likely to choose appropriate practices which will benefit children.

There are three distinct gaps in the literature. First of all, while decisions based on assessment results have been evaluated in terms of which decisions are beneficial to children, the process of using data to make decisions has been largely ignored. Although this survey asked about decisions being made, the appropriateness of these decisions based on test results was not verified. Future studies might look at specific assessments, the decisions made from these assessments, and the longitudinal impacts of these decisions. Secondly, the inclusion of all children in the assessment process, and the perceived utility of assessment results with specific groups of children have been underrepresented in the research literature. In this survey, most respondents indicated that children were always included in kindergarten readiness assessment, but the perceived usefulness of testing results was fairly low for some groups of children, particularly when the children or parents did not speak or read English proficiently. When the perceived usefulness of readiness assessment differs systematically between groups of children, it might be beneficial for research to examine the linguistic and cultural sensitivity of various

assessment measures. Finally, the increase in locally constructed assessments should lead a movement to examine a sampling of these assessments, to determine what type of content is covered, and where teachers are obtaining the information for these measures.

Conclusion

An investigation into kindergarten readiness assessment in one Midwestern state provided a view into the current practices in schools. While the types of assessments being used and the decisions being made from assessment results are arguably the most influential for children, all aspects of the kindergarten readiness assessment process have significant implications and results for children. With varying levels of guidance and structure, states are assessing school readiness across the nation. By increasing the research and knowledge in this area, the base of evidence-based practices might grow and continue to improve the state of practices.

It is important to note that several aspects of the research may limit the generalizability of the results. The study only looked at practices in one state, and while the survey respondents covered a majority of the counties within that state, results of some questions may have been different if the number of respondents was larger. Additionally, due to the varied nature of kindergarten readiness assessment between states, an analysis of assessment in one state may look quite different from that in another state.

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Table 1

Inclusion of Certain At Risk Groups in Readiness Assessment

Populations of Children	Included	Quality of Assessment
Children with no previous early education experience	98%	3.21
Children with mild developmental delays or learning disabilities	95%	3.05
Children with significant development delays or disabilities	80%	3.05
Children with language or communication disabilities	96%	3.01
Children who may be gifted	96%	3.01
Children who come from families that place them at risk	96%	2.86
Children with physical or sensory disabilities	92%	2.81
Children whose first language is not English	90%	2.78
Children whose parents do not speak or read English proficiently	93%	2.75

Table 2

Assessment of School Readiness by Domain

School Readiness Domain	Measuring domain	Perceived adequacy
Physical health and well-being	96%	85%
Language and literacy	94%	80%
Cognitive and general knowledge	92%	70%
Motor	86%	55%
Social-emotional	71%	45%
Approaches to learning	69%	39%

Table 3

Assessment Methods by School Readiness Domains

Readiness Domains	Teacher Observation	Parent Report	Schoolwide Procedures	Teacher Checklist	Commercial Tools	Early Education
Physical health and well-being	74% ¹ (89%) ²	70% (93%)	38% (96%)	13% (87%)	4% (86%)	24% (88%)
Language and literacy	88% (87%)	36% (88%)	30% (94%)	58% (94%)	52% (93%)	21% (89%)
Cognitive and general knowledge	82% (77%)	30% (88%)	31% (86%)	57% (85%)	30% (78%)	17% (75%)
Motor	92% (65%)	33% (83%)	16% (65%)	37% (78%)	21% (71%)	22% (78%)
Social-emotional	94% (66%)	60% (73%)	14% (84%)	32% (93%)	4% (100%)	32% (68%)
Approaches to learning	95% (56%)	40% (65%)	13% (93%)	38% (78%)	6% (86%)	23% (67%)

¹Top number indicates the percentage of teachers reporting they used this method for this domain

²Bottom number indicates the percentage of teachers reporting they felt this method assessed the domain adequately to very well

Figure 1

Questions Facing Practitioners and Researchers Concerning Assessing School Readiness

1. How should school readiness be defined?
2. What is the purpose of assessing school readiness? What decisions will be made?
3. Who will need to be assessed (e.g., children, families, community programs)?
4. What areas will need to be assessed (e.g., development, specific skills, family background)?
5. How will school readiness assessment need to be conducted (e.g., observation, commercial tests, parent report)?
6. Who will need to be involved in assessing school readiness (e.g., teachers, school psychologists)?
7. When and where will school readiness assessment need to occur (e.g., spring or fall, community or school)?

Figure 2

Survey Questions

1. Do you assess children's preparation or readiness for entering your kindergarten and school?
2. To what extent does your school assess children's skills in each of the following areas:
Health and Physical Well-being, Motor Development, Social and Emotional Development,
Language Development and Literacy, Cognition and General Knowledge, and Approaches to
Learning?
3. For each area, how do you assess children?
4. If you use a commercially published assessment, what is it?
5. Who is involved in assessing children's school readiness?
6. When does school readiness assessment occur?
7. Where is school readiness assessment conducted?
8. Are school readiness assessment procedures the same for all children in your school and
district?
9. To what extent are various groups of children (e.g., children with disabilities, non-English
speaking children/families, children living in poverty) included in your general school
readiness assessment?
10. What class placement decisions or recommendations are based upon the assessment results?
11. How do the assessment results influence classroom work?
12. How well do the assessment results help you in your decision making?

Figure 3

Commonly reported commercial assessment tools

- Brigance K & 1 Screen
- Dynamic Indicators of Basic Early Literacy Skills (DIBELS)
- Peabody Picture Vocabulary Test (PPVT)
- Galileo
- Gesell Developmental Assessment
- Creative Curriculum
- Developmental Indicators for the Assessment of Learning- 3 and Revised (DIAL-3/
DIAL-R)
- Early Prevention of School Failure (EPSF)
- Northwest Evaluation Association (NWEA) measures

Figure 4

Implications for Professionals

Practitioners

1. Define school readiness and choose purposes for assessment before making logistical decisions
 2. Choose assessment teams and practices to complement the definition of school readiness and the purposes for assessment
 3. Use assessments only for their reported purpose
 4. Stay current on the research literature for school readiness assessment
-

Policy-makers

1. Make decisions based on the research in the area
 2. Support policies that strengthen families, community resources, and educational programs, all of which will positively influence school readiness for children
 3. Help practitioners stay informed of current research
-

Researchers

1. Increase research in this area
2. Focus research efforts on actual practices and their implications for children