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Teachers' preferences for educational planning: Dynamic testing, teaching' experience and teachers' sense of efficacy

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ABSTRACT

This study surveyed a sample of 188 elementary teachers with respect to their preference for information regarding educational planning, in particular information captured with dynamic testing procedures. The influence of teachers' experience and sense of efficacy on teachers' preferences was also investigated. Results indicated teachers' preferences for dynamically gathered information regarding children's learning processes, next to standard information such as a diagnosis. Appreciation for dynamic testing information appeared to be relatively higher for those teachers with longer teaching experience, but not related to teachers' sense of efficacy. Findings are discussed with regard to their implications for both diagnostic and teaching practices.

Adapting instruction to the needs of individual students is an important theme in education. Teachers are more and more expected to differentiate instruction to address the needs of individual students, to monitor students' progress carefully and to write educational plans for students with learning difficulties or special needs (e.g., Pameijer, 2006; Pelco, Ward, Coleman, & Young, 2009). Teachers often rely on the assessment of a school psychologist to design instruction and individualized plans. However, a long noticed gap exists between the information provided by psychologists and the information considered relevant for instructional planning by teachers (Thurlow & Ysseldyke, 1982), as well as between the implementation of reported recommendations and the provisions by educational services (Kanne, Randolph, & Farmer, 2008).

While, traditionally, psychologists conducted assessments with the purpose of classification, diagnosis, clarification of learning problems or eligibility for special education, today the emphasis is more and more on prescriptive assessment, that is, on providing recommendations for interventions and individual educational plans (Brown-Chidsey, 2005; Kanne et al., 2008; Pameijer, 2006; Resing, Ruijssenaars, & Bosma, 2002). The application of a standard battery of instruments (i.e., intelligence tests) by school psychologists is believed to be one of the factors that contribute to maintaining this gap. These tests have been designed for describing strengths and weaknesses and for detecting deficiencies in learners, but hardly provide information for educational intervention (Elliott, 2003; Pameijer, 2006; Resing, 2000). Several researchers advocate for dynamic assessments, which provide such information, to be included so as to make assessments more useable (Haywood & Lidz, 2007). Dynamic tests are characterized by assessment procedures in which an intervention or a training phase is included, in order to observe the child's response to instruction and feedback (Elliott, Grigorenko, & Resing, 2010). It should be mentioned that these test procedures are neither developed nor used for the purpose of raising children's performances in basic skills such as reading and mathematics, but mainly to provide a fair description of a child's general learning capacity. The purpose of this study was to examine whether teachers consider the additional information provided by dynamic testing as relevant for instructional planning for individual children and whether teachers' opinions are systematically related to their own age, teaching experience, and sense of efficacy.

Much research has been dedicated to the effects and applicability of dynamic testing in educational settings in various countries, for instance, Beckmann (2001) in Germany, Lidz (2002) and Grigorenko (2009) in the United States, Hessels, Berger, and Bosson (2008) and Hessels-Schlatter (2002) in Switzerland, Resing, Tunteler, de Jong and Bosma (2009) in the Netherlands and Tzuriel (2000) in Israel. The results of these studies provided insight into children's potential for learning, their need for instruction and their response to feedback. In particular the intervention phase or training phase, which is part of the testing

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procedure, provides opportunities to acquire rich information regarding learning processes, learning strategies children use, and instructional strategies children could profit from (Elliott et al., 2010; Tzuriel, 2000). Outcomes of dynamic testing could therefore be of use to guide classroom recommendations regarding children's need for assistance, feedback and instruction (Bosma & Resing, 2010; Delclos, Burns, & Vye, 1993; Haywood & Lidz, 2007). However, dynamic testing is not common practice (Elliott, 2003; Grigorenko, 2009) and has not yet been included in teacher training programs in the Netherlands.

Some studies also addressed the applicability of information in psychological reports. Pelco et al. (2009) showed that teachers had difficulties in making use of the information found in psychological reports and in planning interventions. About half of the teachers in their research were unable to propose an intervention during a short brainstorm session immediately after reading the reports. Kanne et al. (2008) focused on the applicability of neuropsychological reports regarding children with autism for writing individual educational plans and concluded that the regular reports were not suited for this purpose. These authors suggested providing an additional bridging document that helps to translate the neuropsychological assessment information to educational practice.

Hulburt (1995) investigated preschool teachers' preferences for reports to be used in planning instruction for preschool children. Teachers were to rate statements about three types of assessment reports: 1) standard assessment, which includes norm-referenced or intelligence measures; 2) curriculum based assessment, which is a form of criterion-referenced assessment; and 3) dynamic assessment. Hulburt (1995) found that information regarding learning processes and teaching strategies (which are both examples of information provided in dynamic testing reports) was requested most. Information regarding curriculum skills and progress monitoring (which may be found in the second type of assessments) was also considered very useful, as was information regarding the diagnosis (e.g., low intelligence score or low reading scores), which is a typical example of standard reports.

Freeman and Miller (2001) also focused on what information would be useful to write educational plans. They investigated the value of dynamic testing versus curriculum based assessment and standard assessment among special education coordinators. Ratings of excerpts of the three types of assessment reports revealed that coordinators were not very familiar with dynamic testing information and reports, but rated such information as more valuable and useful than information based on standard testing. Especially the dynamic measures of progress and the description of thinking skills were valued. Curriculum related information on the other hand was rated as most familiar and useful by the coordinators.

In a study with elementary school teachers, who rated reports and recommendations based on dynamic or standard testing for children that were actually in their class, the potential value of dynamic testing for guiding educational planning was generally acknowledged (Bosma & Resing, 2010). The majority of the teachers considered recommendations in dynamic testing reports as meaningful for their practice, but teachers who were presented with standard reports and recommendations also responded positively. Teacher ratings appeared to greatly vary among teachers reading dynamic testing reports. Excerpts of dynamic testing reports that resembled those of Freeman and Miller (2001) were also considered to contribute to the elaboration of individual educational plans, but here again the variation in teachers' responses was high. The ratings by the teachers appeared to be related to their experience and age. Variation in report preference was also found by Hulburt (1995) who suggested that personal learning and teaching styles may have been of influence.

It is interesting to know if the relationship between preference, experience and age is influenced by teachers' sense of efficacy, i.e., teachers' judgment about their ability to promote student learning. Teachers' sense of efficacy has been found to affect teachers' practices, their behaviors in the classroom, their instructional attitudes and their decision making (Wolters & Daugherty, 2007; Woolfolk-Hoy & Spero, 2005). Teachers with a higher sense of efficacy reported to invest more effort in planning and organization of their lessons (Allinder, 1994; Tschannen-Moran & Woolfolk-Hoy, 2001) and show greater persistence when confronted with challenges (Guskey, 1988). Teachers with a strong sense of efficacy also tend to be more open to new ideas, willing to implement new practices to better meet the needs of their students (Guskey, 1988) and demonstrate more positive attitude toward inclusion (Weisel & Dror, 2006).

Teachers' sense of efficacy tends to be affected by experience (Tschannen-Moran & Woolfolk-Hoy, 2007; Wolters & Daugherty, 2007; Woolfolk-Hoy & Spero, 2005). Novice teachers have a lower sense of efficacy than more experienced teachers, especially with regard to sense of efficacy of instruction and of classroom management (Wolters & Daugherty, 2007). However, a recent study by Klassen and Chiu (2010) showed that teachers' sense of efficacy may follow a nonlinear pattern, increasing from early career with a peek around 23 years of experience and decreasing to late career. The latter may perhaps be seen as a corroboration of the age effect found by Bosma and Resing (2010) with regard to dynamic testing.

In the present study we investigated the importance of dynamic testing information for guiding individual educational plans by an internet survey. The survey consisted of general questions regarding the respondent's background, of items from the teacher efficacy questionnaire, of statements regarding useful information for educational planning (e.g., information that included a description of a child's diagnosis), and ended with five excerpts from dynamic assessment reports (Freeman & Miller, 2001).

We addressed the following four questions: firstly, do teachers have a preference for information based on dynamic testing, curriculum based testing or standard testing? Secondly, which aspects of dynamic testing information do teachers consider as most useful for writing individual educational plans? Thirdly, are teachers' responses influenced by variables such as experience, age or training? And fourthly, are teachers' responses related to their sense of efficacy, i.e., sense of efficacy for instruction, classroom management and student engagement?

1. Method

1.1. Participants

Directors of elementary schools in The Netherlands were randomly selected and contacted by email. They were asked to propose their teachers to participate in the survey. The teachers could participate by simple clicking on a link in the email. The survey was filled in by 221 teachers out of a possible total of 2800 teachers. Because of missing data on key variables, the final sample consisted of 188 teachers. Responses were submitted anonymously and teachers explicitly acknowledged ethical approval when submitting their responses.

Most participants (87%) were female and only 13% were male, which corresponds with the percentage of male and female teachers in primary education. The mean age of the teachers was 41 years, with a range from 21 to 63 years. The majority of the respondents (96.3%) worked in regular schools and 3.7% of the respondents worked in schools for children with special needs. Teachers' experience varied from 0 to 40 years and were equally distributed over schools in (sub) urban and rural areas.