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Assessment in Finland: A Scholarly Reflection on One Country's Use of Formative, Summative, and Evaluative Practices

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Finland's high test scores have prompted international comparisons of educational policy. This article explores the use of assessment in Finland, particularly the intended use of student assessment and evaluation of schools as described in the National Curriculum. This article explores Finnish educational policy through the lens of formative and summative assessment in attempt to gain further understanding of the differences between Finland and the United States.

Finland has recently received international attention for its students' high performance on the Programme for International Student Assessment (PISA). Every three years, the PISA is administered to 15-year-old students in approximately 57 countries (Kupianinen, Hautamaki, & Karjalainen, 2009). Finland has scored first or second in mathematics on the past four administrations of the PISA and has the smallest variance across schools, meaning that Finland does not have a large achievement gap. Because policymakers and education reformers often assume that large-scale assessments are "indicators of the condition of school mathematics," educational practices in Finland have been examined and compared to those in other countries (Dossey, 2007, p. 1435). Officials in many countries, including the United States, have visited Finland to try to determine why Finnish students have performed so highly on the assessment (de Lange, 2007).

Kupianinen et al. (2009) suggest that Finland's high scores on the PISA are due to a lack of high-stakes testing. Finnish students do not take a national, standardized high-stakes test until they matriculate secondary school and then only if they intend to enter higher education. Instead, the purpose of assessment in Finland is to improve learning; it is "encouraging and supportive by nature" (Finnish National Board of Education, 2010, "Encouraging Assessment and Evaluation, para. 1).

According to Black, Harrison, Lee, Marshall and Wiliam (2003), formative assessments for the purpose of learning "produce significant, and often substantial, learning gains" (Black, Harrison, Lee, Marshall, & Wiliam, 2003, p. 9). Black et al. state "the pressure of external 'high-stakes' assessments" can "inhibit the development of formative assessment" (p. 19). However, one school principal in Finland admits that the PISA results have been beneficial in justifying Finland's educational reforms in his statement, "Some testing is thus ultimately necessary...if only to prove that regular testing is not" (Abrams, 2011).

In contrast to Finland, students in the United States have had consistently mediocre scores on international assessments, scoring average or lower than other countries (de Lange, 2007; Dossey, 2003; Loveless, 2011; Madaus, Clarke & O’Leary, 2003; Schleicher, 2009). On the First International Mathematics Study in 1964, the United States scored 11th out of 12 nations (Loveless, 2011). On the subsequent Trends in International Mathematics and Science Study (TIMSS), students in the United States scored lower than students in many other nations, fueling fear that the United States is losing its position as a world power and leading to national reports decrying the state of mathematics education (Madaus, Clarke, & O’Leary, 2003; Stigler & Hiebert, 1999; National Academies, 2007). As a result, studies have compared instruction and curriculum in various countries, and the United States has seen a demand for increased rigor in mathematics instruction (Loveless, 2007; Stigler & Hiebert, 1999). In attempts to raise national achievement, the United States has made several reforms that rely upon yearly high-stakes testing for students; however, high-stakes testing may only result in “teaching to the test,” or adjusting classroom practices to prepare students for a narrow assessment (Kulm, 1994, p. 2; Madaus et al., 2003).

In essence, while the United States has responded to low international rankings in mathematics assessments by requiring more high-stakes testing, Finland has used the PISA to justify its educational reforms that do not include nationwide high-stakes testing. When examining how Finland achieves such high scores on international assessments, national and classroom assessment practices of Finland should be considered.

To that end, this article describes changes in Finnish assessment practices since the initial PISA and TIMSS rankings. The purpose of this scholarly reflection is to examine Finnish national practices in assessment as a contrast to the practices of the United States. The text of the Finnish National Core Curriculum for Basic Education 2004 (Finnish National Board of Education, 2004) was consulted as the basis for this article, as well as the websites of the Finnish National Board of Education and the Ministry of Education and Culture and a selection of current articles on the topic. Because national policy documents were highly referenced for this article, the potential disconnect between a national curriculum and actual classroom practices must be addressed. According to Clandinin and Connelly (1998), school reform is more complex and difficult than merely changing the text of the curriculum; theory does not beget reality. Regardless, a national curriculum can provide insight into the values and expectations of a country, and Finland’s National Core Curriculum provides an illuminating look at the changes that have taken place in the country over the last decade.

Background on Finland Schooling Practices

General classroom practices in Finland may be unfamiliar to teachers in the United States. At age 6, children have the option of attending one year of government-provided pre-primary school, and 96% of students attend. Class sizes are limited to 20 and recommended to have no more than 12 students. At age seven, all students begin nine years of mandatory basic education before entering upper secondary school for three years of either vocational or general education. A school-leaving certificate, awarded after the successful completion of basic education, allows students to enter upper secondary school. Students with the highest grades and marks on the certificate attend general education, while other students attend vocational school. Both groups

of students then have the option to attend higher education at universities or polytechnic training schools. All public education is free, including university and polytechnic schools. At upper secondary and basic education, students are provided with meals and school transportation (Ministry of Education and Culture, 2010).

Normative assessment takes place in early comprehensive school to identify students with possible learning disabilities and need for special education support (Kupiainen et al., 2009). Students are not placed in different classes by ability level; instead, all students are in the same classroom and an additional teacher is present in the classroom to assist struggling students (Grubb, 2007). First- and second-year students may participate in before- and after-school programs, and older students may be provided with special tutoring outside school hours (Ministry of Education and Culture, 2010). Students generally have only a half-hour of homework each night and do not wear school uniforms. Further, Finnish schools have a strict focus on learning, as they do not have tardy bells, athletic teams, marching bands, or school dances (Gamerman, 2008). School learning consists of courses in art, music, cooking, carpentry, and a long recess period, in addition to the typical language, history, mathematics, and science courses (Abrams, 2011).

Teaching is a highly valued and competitive profession, with only the top 10% of applicants accepted into teaching programs (Burrige, 2010; Finnish National Board of Education, 2010). All teachers have extensive master's degrees, and are allowed freedom in the classroom to choose textbooks and adapt a broad national curriculum to their students' individual needs. Finnish schools do not rank students, so honor societies and valedictorians are nonexistent (Gamerman, 2008). The National Curriculum discourages competition, instead placing a focus on cooperation and helpfulness (Kasanen, Raty, & Snellman, 2003).

The assessment system of Finland is based around improving instruction, and the majority of the assessment is formative, or used to improve instruction and learning. Student assessment in Finland takes place in three arenas: within classroom practices, as the final comprehensive assessment of student progress at the culmination of basic education, and during the matriculation examination to serve as a criterion for college admission. Further, the national curriculum is evaluated through the help of an external evaluator and using data from a national standardized assessment, and teachers and schools use self-evaluation to improve education locally.

Student Assessment in Finland

The 2004 National Curriculum provides guidance for evaluation for students in early grades and throughout basic education. The National Core Curriculum for Basic Education 2004 (Finnish National Board of Education, 2004) divides classroom assessment into two categories: assessment during the course and final assessment. Both are nationally mandated to align with national criteria, but they serve different purposes. Formative assessment within the classroom encourages student growth and self-assessment. The national curriculum specifies the criteria for classroom assessment during the course, and it is the teacher's responsibility to carry out assessment of students' conduct and schoolwork along this national criteria. Yearly assessment, based on a variety of student work, provides feedback to students about progress in learning and

suggestions for improvement. The high-stakes final assessment of basic education, contained in the National Curriculum, requires student work samples from 2 years and is conducted by the subject teacher. A final type of assessment that is not included in the National Curriculum is the matriculation examination, the only high-stakes standardized test taken by students. The matriculation examination is administered upon completion of upper secondary school if the student intends to complete further education. In sum, Finland's assessment practices result in fewer formal assessments and fewer pressures for teachers merely to prepare students for a narrow examination.

Formative Assessment

Black and Wiliam (1998) define formative assessment as “all those activities undertaken by teachers, and/or by their students, which provide information to be used as feedback to modify the teaching and learning activities in which they are engaged” (p. 8). Five purposes of mathematics assessment have been outlined by Kulm (1994) as the following: improving instruction and learning, evaluating student progress, providing feedback for students to understand their thinking, communicating expectations, and improving attitudes toward mathematics. Finnish classroom assessment serves similar purposes. In Finland, the purpose of assessment is to guide and encourage studying and self-assessment skills. Assessment measures a combination of educational progress, work skills, and behavior (Finnish National Board of Education, 2010). Classroom assessment practices in Finland allow teachers to evaluate and change instruction based on student needs.

Within the classroom, teachers use formative assessment as well as summative assessment, giving students exams created by the textbook company or by teacher's associations (Kupiainen et al., 2009). According to Kasanen et al. (2003), teachers frequently use tests and test-like situations in primary schools, but avoid presenting the situations as tests. Thus, students see the test situations as learning experiences rather than summative assessments. Numerical grading is not used on these tests, but they are often scored or marked with a scale of “very good” to “needs practice.” In these situations, the results are often not provided to students or parents, and instead used by the teacher for planning. The only genuine test situations are presented in the second half of the school year, and they provide a summative overview of what has been learned.

According to the Finnish National Board of Education (2004), the role of assessment during courses is to “guide and encourage studying and to depict how well the pupil has met the objectives established for growth and learning” (p. 260). Thus, within the classroom, frequent feedback is provided to students regarding their progress through the curriculum. Behavior, work skills, and content knowledge are all assessed on the basis of student and teacher interactions, and communicated with parents regularly. Supportive, positive feedback has been shown to increase student learning and feelings of self-efficacy (Black & Wiliam, 1998). Student growth and progress are carefully monitored and shared with students and parents to encourage further student growth and study habits, as well as the development of self-evaluation skills (Finnish National Board of Education, 2010). In addition to frequent feedback about strengths and areas for improvement, students receive a report at the end of each school year and sometimes at the midpoint of the school year, to be further used as guidance for studying.

Further, frequent formative assessment enables teachers to identify students who struggle with particular topics and provide timely intervention. The teacher or teacher assistant works with individual students or small groups to help students with certain topics. The teacher assistants have been trained in a specific post-secondary program to learn how to assist struggling students, and they work closely with the classroom teacher. Thus, immediate intervention serves struggling students by adapting the learning environment to enhance learning. If necessary, students are provided with special assistance by a special needs teacher, with tutoring after school, or both (Grubb, 2007).

Formative classroom assessment also promotes student self-evaluation. The Finnish National Board of Education (2004) encourages assessment that helps students become aware of their thinking as well as their progress through the curriculum. Thus, student self-assessment is a critical skill for students to develop. Learning how to self-assess well also necessitates teacher guidance. According to Kulm (1994), grades must convey more than mere scores and “communicate to the student what the score means and how they can improve their process” (p. 99). This encourages and enhances the students’ ability to self-evaluate future work. Similarly, Rossi (1995) states that one purpose of assessment is to “encourage and positively direct the learner” (p. 160). The information provided by assessment to the learner can help the learner evaluate his or her own performance and learning process, by setting goals and reflecting on progress.

Summative Assessment

Guidelines for summative assessment are detailed in both the Finnish National Board of Education’s 1999 publication, *Criteria for Graduating Evaluation in the Basic Education*, and the 2004 National Curriculum (Simola, Rinne, Varjo, Pitkanen, & Kauko, 2009). The purpose of the 1999 document was to establish equality across schools regarding student placement in schools or programs after basic education. The more recent *National Core Curriculum for Basic Education* (Finnish National Board of Education, 2004) expands upon the earlier publication with criteria for teachers to use in evaluating students.

The final assessment of comprehensive school can be considered high-stakes, as it determines whether students earn a certificate of completion and can continue to secondary school. Compiled by the main teacher for each subject, the final assessment is a portfolio containing students’ yearly reports as well as diverse evidence of students’ work from eighth and ninth grades (Kupiainen et al., 2009). The National Core Curriculum requires the final assessment to be “nationally comparable and treat the pupils equally” (p. 264). It must be aligned with national criteria for each subject, showing that students have met the required objectives for the course. Test scores are not acceptable as the sole criteria for assessment. Further, the final assessment consists of both verbal comments and a numerical score on a scale of four to ten, with an eight reflecting good performance, and a score of five showing an adequate level of performance and allowing students to earn the certificate of completion (Finnish National Board of Education, 2010).

Students take a standardized matriculation examination upon completion of secondary school and prior to entering a university, polytechnic, or vocational school (Grubb, 2007; Ministry of

Education and Culture, 2010). This assessment measures the knowledge and maturity gained through the upper secondary education curriculum (Finnish National Board of Education, 2010). This marks the only time that standardized assessment is used to make a decision regarding individual students in Finland. Students may take an advanced or general school-leaving exam to determine future school placement (Brekke & Zambulionis, 1995). In a comparison of school-leaving exams among Denmark, Finland, Latvia, Lithuania, Norway, Poland, Russia, and Sweden, studies found that Finland's examinations were the most comprehensive, addressing six (general) or seven (advanced) of eight categories of mathematical content. Of these countries, Finland's exams had the second highest percentage of the exam assessing the more advanced levels of mathematics proficiency. Further, Finland's general exam contained a greater percentage of high-level questions than any other country in the study (Brekke & Zambulionis, 1995).

Evaluation of Teachers and Schools

In the late 1980s, education in Finland became largely decentralized, increasing local control and ending former policies that structured the teacher's workday and school evaluations. In the past, teachers adhered to a strict national curriculum and official teaching guides, recorded the topic of each instructional hour in a class diary and adhered to a weekly timetable, and school inspectors evaluated schools strictly according to norms (Rinne, Kivirauma, & Simola, 2002). In 1999, the Basic Education Act revised Finland's evaluation practices, changing the purpose of evaluation away from norm steering and to the purpose of supporting "development of education and [to] improve conditions of learning" (Simola et al., 2009, p. 170). Rather than using evaluation to control, the new system of evaluation involves self-assessment, respects diversity, and encourages growth and improvement (Rinne et al., 2002). The only remnant of the former control is the nationally mandated minimum number of lessons that must be taught in each subject. In 1995, the Framework for Evaluating Education Outcomes was published by Finland's National Board of Education to provide guidance to local entities regarding evaluations, but this document is intended to be loosely interpreted (Simola et al., 2009). According to Simola et al., evaluation varies widely among schools, and there is no single national evaluation.

According to these new evaluation standards, teachers and schools are not evaluated externally or on the basis of student test scores. Although schools are evaluated, since 1998 the data has never been publicly linked to individual schools or teachers, so neither schools nor teachers can be ranked (Simola et al., 2009). Students take a national standardized assessment during the last year of basic education, but these results are only used to assess the effectiveness of the national curriculum. Schools perform a self-evaluation once per year, and this evaluation can be made public.

National standardized assessment takes place once per year with a selected sample of ninth grade students for the purpose of diagnosis and improvement of the national curriculum. Each year, a sample of approximately 100 schools is selected for national testing to evaluate the national curriculum. This standardized mathematics assessment is administered and evaluated by the National Board of Education (Kupiainen et al., 2009). However, school test scores are kept confidential to avoid ranking schools or teachers, and only national averages are released to the public (Valijarvi, 2004). The scores are used only to identify widespread weaknesses in the

nation's educational system and to improve the national policy or curriculum as needed (Grubb, 2007; von Zastrow, 2008).

According to the Ministry of Education and Culture (2010), schools in Finland perform their own evaluations to ensure educational quality and adherence to education policy. Although the Ministry of Education determines the strategy for school evaluation, the Educational Evaluation Council serves as an external evaluator for general features of the educational system (Kupiainen et al., 2009). Schools and municipalities perform self-evaluations regarding education each year (Rinne et al., 2002). Due to this decline in control and increase in self-evaluation, some school employees felt that inspection, control, and evaluation was minimal, and schools were run almost independently (Rinne et al., 2002).

Cautions in Making Comparisons

Although Finland's success on the PISA has encouraged policy-makers in the United States to analyze Finland's educational system, a few cautions should be taken when comparing the two countries.

First, Finland does not have a system for encouraging high achieving and gifted students within the classroom (Burrige, 2010; Gamerman, 2008). Classes containing all students of varying abilities may be helpful to struggling students but boring to gifted students. Although students are told to ask for more work if they find the material too easy, Gamerman (2008) found that some educators and parents advocate for special gifted programs for high-achieving students.

Second, cultural differences between the two countries may mean that the United States cannot implement Finland's policies in the same way or expect the same results. Grubb (2007) warns against imitating Finland's entire educational system because "some aspects of that nation's politics and culture cannot be readily transferred" (p. 106). Finland's reforms work with a small country and a fairly homogenous population, and such reforms might be difficult to implement in large countries with a large disparity in socioeconomic status and immigrants or English language learners. Further, Finland's reforms extend beyond school, providing free health care, meals, counseling, and higher education to all students, hereby alleviating some of the factors that negatively impact students' performance in school.

Third, Finland's recent international acclaim seems to be solely based on the PISA scores, as Finland did not participate in any other international assessments, including the TIMSS, from 1999 to 2011. The PISA may be a "friendly judge" for Finland, as the PISA assesses mathematical literacy and the Finnish mathematical curriculum places a heavy emphasis on literacy and application (Andrews & Sayers, 2006; Loveless, 2011, p. 4; Schleicher, 2009). The TIMSS, on the other hand, tends to assess topics commonly learned across curricula (de Lange, 2007). Regardless of these differences, in 1964, Finland scored 5th of 12 countries on the *First International Mathematics Study*, and on the most recent *Trends in Mathematics and Science Study* in which Finland participated, its students scored 14th of all 38 participating countries—both higher than the United States, which ranked 11th and 19th, respectively (Loveless, 2011). More light will be shed on Finland's international rankings in late 2012, when the results of the most recent TIMSS will be released (Loveless, 2011; National Center of Education Statistics,

2011).

Concluding Thoughts

With the attention the United States has directed at international assessments, some consideration should be paid to the policies of high scoring nations. Although the United States should not leap into educational policies mirroring those of Finland, the differences in the countries' policies are dramatic. Finland takes a definitive stance toward both summative and formative assessment in its national curriculum. The United States has also taken a definitive stance toward national assessment, albeit in the opposite direction. Whereas Finland sees no need for high-stakes testing, the United States has pinned its hopes for improving education on widespread high-stakes testing. The Finnish National Curriculum has fostered a supportive environment for the development of teacher professionalism and expertise, providing Finnish teachers with the freedom needed to make classroom and assessment decisions. On the other hand, teachers in the United States are subject to stringent requirements regarding curriculum and assessment. Policymakers in the United States might benefit from a consideration of the policy differences in Finland and the effect these policies may have on student performance. After all, if Finland is able to score so highly on international assessments with their hands-off policies, what does that mean for the rigid policies and high-stakes testing in the United States?

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