



# Putting the Evidence Back into Evidence-based Policies for Underachieving Students

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## Introduction

Policy-makers in Europe and most other countries around the world have no hesitation in endorsing the principle of evidence-based educational policies. Most would agree that it is particularly important to apply the findings of empirical research to improve the educational performance of socially and economically marginalised students because these students experience disproportionate school failure. Typically included within the category of marginalised or “disadvantaged” are students from low-income backgrounds, many groups of immigrant and refugee students, and minority groups such as the Roma and indigenous communities who have experienced discrimination and social exclusion, often over generations.

The motivation to close the achievement gap goes beyond principles of equality and social justice. The economic costs of school failure are enormous. The Organisation for Economic Cooperation and Development (OECD) has recently published an economic growth projection which estimated that even minimal improvements in the educational performance of socio-economically disadvantaged students would result in huge long-term savings for member countries: “The results suggest that bringing the lowest-performing students in the OECD area – many of whom are socio-economically disadvantaged – at least up to 400 score points on the PISA scale, which corresponds roughly to the lower boundary of the PISA baseline Level 2 of proficiency, could imply an aggregate gain of national income in the order of USD 200 trillion over the lifetime of the generation born in 2010” (OECD, 2010a, p. 26).

To what extent have recent attempts to implement evidence-based policies been successful? The picture is mixed. Data from the OECD Programme for International Student Assessment (PISA) suggest that countries vary significantly in the extent to which socioeconomic disparities influence educational achievement and also in the extent to which first and second generation immigrants succeed in school (OECD, 2010a; 2010b). Implementation of evidence-based policies is not straightforward for a number of reasons. In the first place, there are obvious ideological complexities associated with social policies generally, and particularly with respect to issues of equality, income distribution, immigration, and priorities within public education systems. Ideological presuppositions frequently influence what research is considered relevant and how that research is interpreted. Secondly, it is only within the past decade that comprehensive cross-national research has become available (largely through the OECD PISA studies) that directly addresses the causes of educational underachievement.

So what evidence should policy-makers consider in implementing evidence-based policies? Based on research findings regarding the achievement of immigrant and socially disadvantaged students, the OECD has articulated a number of useful system-level policy suggestions for improving students’ achievement (e.g., regarding funding allocations, evaluation and assessment, etc.) (OECD, 2010b) and it has also carried out case studies of educational jurisdictions that appear to be managing system improvement and diversity issues reasonably well (e.g., Ontario in Canada) (OECD, 2010c). The OECD has also highlighted the fact that “institutional changes must be made within every school, including changes in school leadership, teaching methodologies and school-home cooperation” (OECD, 2010b, p. 45). With respect to teaching methodologies, they emphasize provision of consistent support across the grade levels for developing students’ academic language and integrating language and content learning. They also highlight the importance of valuing and validating students’ mother tongue proficiency.

In short, as a result of the OECD studies during the past decade and a variety of other research syntheses that have been published (e.g., August & Shanahan, 2006; Bransford,

Brown & Cocking, 2000), educators and policy-makers are now in an excellent position to implement educational policies that are truly evidence-based. In the sections below, I synthesise the research findings in the form of a framework designed to support school-based policy development in relation to immigrant and socially marginalised students. The focus of the framework is on maximising students' literacy engagement within the classroom learning environment.

### **The Knowledge Base**

The major research findings relevant to designing evidence-based classroom instruction and broader within-school policies can be summarized under six categories. There is virtually universal consensus among researchers and educators about the relevance of three of these categories but only sporadic acknowledgement of the other three. The three categories about which there is consensus are sketched initially followed by an outline of the research findings that, thus far, have not played a major role in the development of school-based policies for underachieving students.

***Scaffold meaning.*** The term *scaffolding* refers to the provision of instructional supports that enable learners to carry out tasks and perform academically at a higher level than they would be capable of without these supports. Some forms of scaffolding focus on modifying and mediating the immediate input so that it becomes more comprehensible to students (e.g., through use of visuals, demonstrations, dramatisation, acting out meanings, interactive and collaborative tasks and explicit explanation of words, linguistic structures and discourse patterns). Other forms of scaffolding operate on students' internal cognitive structures to enable them to develop long-term strategies for effective learning. For example, in PISA 2009 it was reported that: "Within each country, students who reported beginning the learning process by figuring out what they needed to learn, who ensured that they understood what they read, tried to figure out which concepts they had not fully grasped, attempted to remember the most important points in a text and sought additional clarifying information when they did not understand something they had read, tended to perform better on the PISA reading scale than those who do not" (OECD, 2010d, p. 48). A detailed description of scaffolding strategies is provided in a Council of Europe study written by Thürmann, Vollmer and Pieper (2010).

***Activate prior experience/build background knowledge.*** There is virtually universal agreement among reading and learning theorists that effective instruction for all students activates their prior experience and builds background knowledge as needed (e.g., Bransford, Brown & Cocking, 2000). Learning can be defined as the integration of new knowledge and skills with the knowledge and skills we already possess. Therefore it is crucial to activate students' pre-existing knowledge so that they can relate new information to what they already know. The relationship between existing knowledge and learning has been expressed succinctly by Donovan and Bransford (2005, p. 4): "*new understandings are constructed on a foundation of existing understandings and experiences*" (emphasis original). Applied to immigrant students, this principle implies that when students' background knowledge is encoded in their first language (L1), they should be encouraged to use their L1 to activate and extend this knowledge (e.g., by brainstorming in groups, writing in L1 as a stepping stone to writing in L2, carrying out Internet research in their L1, etc.).

***Extend language.*** As students progress through the grades, they are required to read increasingly complex texts in the content areas of the curriculum (science, mathematics, social studies, literature). The complexity of academic language reflects: (a) the difficulty of the concepts that students are required to understand, (b) the vocabulary load in content texts that include many low frequency and technical words that we almost never use in typical conversation, and (c) increasingly sophisticated grammatical constructions (e.g.,

passive voice) and patterns of discourse organization that again are almost never used in everyday conversational contexts. Students are not only required to read this language, they must also use it in writing reports, essays, and other forms of school work. As pointed out by the OECD (2010b), an explicit and consistent focus on developing students' awareness of how academic language works in the different content areas across the curriculum is essential if struggling learners are to catch up academically (see also Thürmann, Vollmer and Pieper, 2010).

As noted above, there is a large degree of consensus among researchers, educators and policy-makers with respect to the importance of these three instructional principles. Equally strong research support is available for the following three principles despite the fact that they have not yet been explicitly integrated into school improvement policies in many countries.

**Maximise print access and literacy engagement.** Successive PISA studies have reported a strong relationship between reading engagement and reading achievement among 15-year old students. The 2000 PISA study (OECD, 2004) led to the conclusion that the level of a student's reading engagement is a better predictor of literacy performance than his or her socio-economic background. The authors point out that "engagement in reading can be a consequence, as well as a cause, of higher reading skill, but the evidence suggests that these two factors are mutually reinforcing" (p. 8). The more recent PISA findings (OECD, 2010d) confirm these trends. Engagement in reading was assessed through measures of time spent reading various materials, enjoyment of reading, and use of various learning strategies. Across OECD countries, approximately one-third of the association between reading performance and students' socio-economic background was mediated by reading engagement. *The implication is that schools can significantly mitigate the negative effects of socioeconomic disadvantage by ensuring that students have access to a rich print environment and become actively engaged with literacy.*

The importance of print access/literacy engagement has been confirmed by a recent meta-analysis that concluded: "Separate meta-analytic procedures performed on just those effects produced by "rigorous" studies suggest that children's access to print materials plays a *causal* role in facilitating behavioral, educational, and psychological outcomes in children—especially attitudes toward reading, reading behavior, emergent literacy skills, and reading performance" (Lindsay, 2010, p. 85).

**Affirm students' identities.** The construct of *identity* has not generally been considered in models of school effectiveness for the simple reason that this construct is difficult to quantify and thus has not been amenable to statistical manipulation. However, there is an extensive body of research from the disciplines of sociology and anthropology that discusses how minority students' academic engagement is affected by patterns of teacher-student identity negotiation (see Cummins, 2001; and Cummins & Early, in press, for reviews). The influence of broader societal power and status relations on teacher expectations and classroom interactions was documented many years ago by research in the American southwest which reported that Euro-American students were praised or encouraged 36% more often than Mexican-American students and their classroom contributions were used or built upon 40% more frequently than those of Mexican-American students (U.S. Commission on Civil Rights, 1973). Under these conditions, students very quickly pick up and internalise the message about who is seen as intelligent and who is less intelligent. Lacking identity affirmation in the classroom, many of these marginalised students find identity affirmation on the street.

Identity negotiation and its relationship to societal power and status relations is also clearly implicated in the phenomenon of "stereotype threat" for which there is extensive

experimental documentation (see OECD, 2010d, pp. 87-88). This research is summarised by Schofield and Bangs (2006) as follows: “stereotype threat, the threat of being judged and found wanting based on negative stereotypes related to one’s social category membership, can seriously undercut the achievement of immigrant and minority students” (p. 93). It is not difficult to see how negative stereotypes communicated overtly or inadvertently to students within the school might undermine the academic engagement of students from socially marginalised groups (e.g., Roma students). The direct implication is that schools need to challenge the devaluation of students’ language, culture, and identity in the wider society by implementing instructional strategies that affirm students’ identities.

**Promote plurilingualism.** Policy-makers have increasingly acknowledged the extensive research suggesting that (a) bilingualism confers linguistic and cognitive benefits on pre-school children and school-age students and (b) bilingual programmes that use two (or more) languages for instructional purposes develop strong L2 skills at no cost to students’ L1. This awareness is reflected in the proliferation of Content and Language Integrated Learning (CLIL) programmes across Europe and elsewhere in recent years. As one example, the number of CLIL programmes in the municipality of Madrid has increased tenfold, from about 25 in 2004 to more than 250 in 2010.

The benefits of plurilingualism and intercultural education generally have been endorsed by policy-makers within Europe for many years. For example, the Council of Europe has consistently promoted the value of plurilingualism for *all* students (including migrant and vulnerable students) (e.g., Little, 2010).

Unfortunately, however, at a national and local level, policy-makers have been largely unwilling to implement programmes and school-based instructional policies that would encourage immigrant and minority group students to continue to develop their home languages. In many cases, students’ home languages have been seen as part of the problem rather than as part of the solution; in other cases, they have been treated with benign neglect within the school and viewed as irrelevant to students’ learning of the school language and broader academic achievement.

In recent years, however, research has documented the feasibility and benefits of bilingual instructional strategies that position students’ L1 as a cognitive resource and a tool for learning, even in multilingual school contexts where teachers do not speak most of the languages of their students (see Cummins and Early, in press). Among these strategies that not only promote plurilingualism but also affirm students’ identities, are the writing and web publication of dual language books (often with the assistance of parents and/or community volunteers), inquiry projects that encourage students to use both their L1 and L2 (see Marshall and Toohey, 2010, for an excellent example), and language awareness activities that teach for transfer across languages and focus students’ attention on differences and similarities between languages (e.g., cognate relationships). This focus on promoting plurilingualism has been endorsed by the OECD (2010b) as an important component of school-based policies for promoting immigrant students’ achievement: “Valuing the mother tongue of immigrant students is an essential part of developing a positive and appreciative approach to diversity and identity” (p. 49).

The endorsement of bilingual development by agencies such as the OECD and the Council of Europe is not just a statement of social values. On the contrary, it is based on a massive amount of data showing consistently strong and positive relationships (interdependence) between academic development in L1 and L2 among both minority and majority language students (see August and Shanahan, 2006; and Cummins, 2001, for reviews).

A related issue concerns the question of whether immigrant families should be encouraged to use the school language, rather than their home language, in raising their children. Parents sometimes feel that their children will benefit from eliminating the “language barrier” before they go to school and this attitude has sometimes been encouraged by teachers in the school. Unfortunately, when parents attempt to use the school language in the home, they often expose their children to poor models of this language (because they may not be totally fluent), reduce the quality of communication with their children, and deprive their children of the opportunity to develop proficiency in the home language. At a very concrete level, this frequently results in children and grandparents being unable to communicate with each other. The PISA data show clearly that there is no independent relationship between language spoken at home and students’ reading achievement. Although there is a negative correlation between use of the L1 in the home and achievement in many countries, this relationship is mediated by factors such as socioeconomic status and length of residence in the host country and disappears (in 10 out of 14 OECD member countries) when these factors are controlled (Stanat & Christensen, 2006, Table 3.5, pp. 200-202).

### **An Evidence-based Framework for School Policy and Classroom Instruction**

The framework presented in Figure 1 integrates the research findings that have been outlined up to this point. The framework posits print access/literacy engagement as a direct determinant of literacy attainment. As noted above, this proposition is strongly supported by the empirical research. The framework also specifies four broad instructional dimensions that are critical to enabling all students (and particularly those from socially marginalised groups) to engage actively with literacy from an early stage of their schooling. Literacy engagement will be enhanced when (a) students’ ability to understand and use academic language is scaffolded through specific instructional strategies, (b) their prior experience and current knowledge are activated, (c) their identities are affirmed, and (d) their knowledge of, and control over, language is extended across the curriculum. The distinctions captured in the framework are frequently fused in classroom practice. For example, acknowledging and activating students’ prior experience simultaneously affirms the legitimacy of that experience and, by extension, the legitimacy of students’ identities. Bilingual students’ identities are also affirmed when they are encouraged to use their L1 writing abilities as a stepping stone or scaffold to writing in L2.

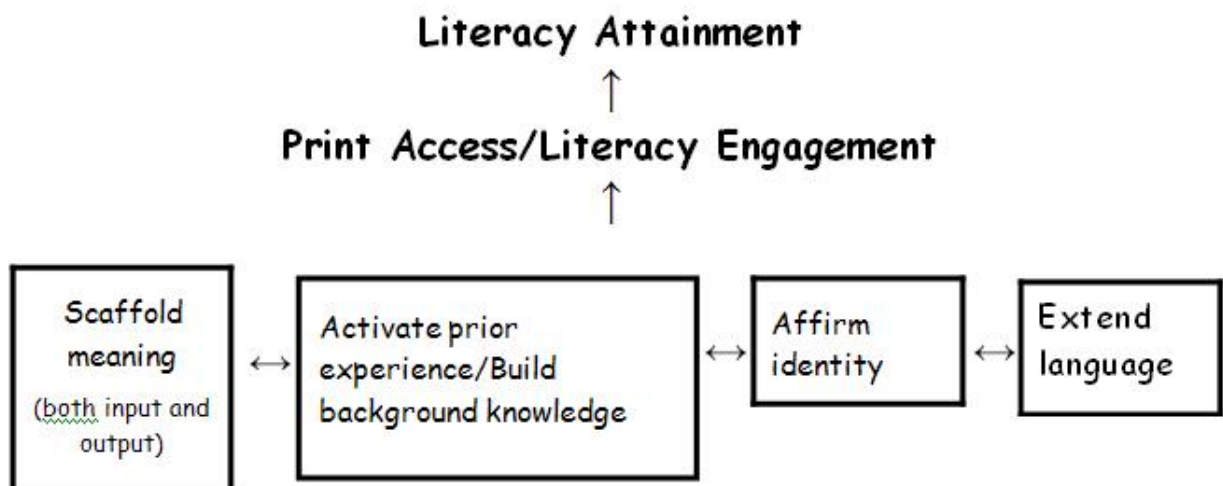


Figure 1. The Literacy Engagement framework

In summary, current school improvement models and policies aimed at increasing the achievement of immigrant and socially disadvantaged students could reflect the empirical



evidence more fully by incorporating the constructs of Print Access/Literacy Engagement and Identity Affirmation. In addition, acknowledging the role of students' L1 as a cognitive tool and their bilingualism as a personal accomplishment could increase the efficacy of instructional strategies designed to scaffold meaning, activate students' prior experience, affirm identities and extend students' academic language awareness and proficiency.

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