

Scientific Review
Commissioned by the Language and Literacy Committee

Assessment of Middle School Literacy and **Achievement in Israel** (*)

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(*) Commissioned by the Initiative for Applied Education Research's Language and Literacy Domain Committee .

- The findings are in the authors' own words and the conclusions reached are their own.
- This is an English translation of the review abstract, originally written in Hebrew.

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Abstract

The purpose of this professional literature review is to assist the 'Expert Committee for Language and Literacy', established by the Initiative for Applied Research in Education, in its discussions on the promotion of literacy in junior high schools. As such, this document includes a review and analysis of results regarding the achievements of Israeli Hebrew- and Arabic-speaking junior high school students in the language domain, obtained from several national and international assessments over the past decade. Also provided in the document are some findings regarding the relationships between various educational indicators and student achievement.

The report commences with a brief introduction addressing the following: a review of definitions of reading literacy, a brief summary of the Hebrew language curriculum, classification of the various cognitive functions underlying verbal ability, and a brief review of the sources and types of difficulties in the acquisition and usage of language functions. The main part of the review focuses on two large scale assessments: the EGEMS - Education Growth and Effectiveness Measures for Schools (also known by its Hebrew acronym - MEITZAV) and the Program for International Student Assessment (PISA). A few other assessments are briefly introduced. The following information is provided for each assessment: rationale and purpose, structure, the definition of linguistic literacy, the specific skills assessed, and the achievements obtained by students from various population groups.

The assessment of language literacy

Language, and all its various components, is the primary medium for thinking, learning and communicating. The term 'language literacy' commonly refers to the extent of an individual's mastery of various language components and the efficacy with which he/she uses them in different contexts. Though the national and international assessments focus on different language components, most of the assessments in the educational context concentrate predominantly on 'reading literacy' (reading comprehension). Other language skills (e.g., grammar, writing) are either not examined at all (as in the PISA) or are examined in differing degrees (as in the EGEMS and AMIT - a test administered to seventh graders to identify students with insufficient command of their mother tongue as well as difficulty in other areas language acquisition).

With regard to the structure of the assessments, both national assessments (EGEMS and AMIT) share a similar structure, while that of PISA is considerably different. Whereas the EGEMS and AMIT are anchored in the Hebrew/Arabic curriculum and encompass a variety of language skills (reading comprehension, writing and grammar), the PISA is based on a dynamic model of life-long learning with an emphasis on reading literacy and its usage in everyday life situations. Moreover, the PISA assessment is broader both in terms of the number of items and texts, and in the diversity of genres and types of texts. Particularly noticeable is its broad coverage of non-continuous texts (e.g., tables, charts) which is only partially examined in the national assessments. In spite of the difference between the EGEMS and the PISA in the types of text, both assessments define and examine rather similar reading skills and use both multiple-choice and open-ended items to assess reading comprehension. Nonetheless, the proportion of open-ended items in the national assessment (70%) is higher than in the PISA (52%).

Achievements in language literacy

The average achievements of Hebrew-speaking students in language literacy, as measured by the EGEMS language tests, increased by about a 1/3 SD over the past three years (2008-10). The average achievements of Arabic-speaking students also increased between 2008 to 2010, albeit more moderately, and in an inconsistent pattern. Results from international assessments indicate that the achievement of Hebrew-speaking students in reading literacy are slightly higher than the international mean, while the achievements of the Arabic-speaking students fall approximately 1.0 SD below the international mean. Findings regarding achievements in specific reading skills indicate that Hebrew-speaking students are more proficient in higher level skills, such as 'developing an interpretation' and 'reflecting on and evaluating the content/form of a text,' than in 'retrieving information' from text, which is considered a lower-level skill.

Achievement by sector: The achievements of Hebrew-speaking students in reading literacy (PISA) are on average much higher (by approximately 0.84 SD) than those of Arabic-speaking students. Only a small part of this effect can be explained by the difference in the socio-economic status (SES) between the two groups. The gap has

been rather consistent over the past decade and is in line with results obtained in a large variety of assessments which were administered during the past two decades in a variety of school subjects. Although both groups improved their PISA achievement scores between 2006 and 2009, the gap between them increased by 0.2 SD. With respect to the three sectors of Arabic speakers, the highest mean achievements were obtained in the Druze sector, followed by moderately lower achievements (0.2 - 0.3 SD) in the Arab sector and by significantly lower achievements in the Bedouin sector (0.3 - 0.7 SD). This achievement pattern has been consistent over the years.

Achievement by gender: In general, girls score higher than boys on language tests. The mean achievement of Hebrew-speaking girls has been consistently higher than that of boys by approximately 1/3 SD. The gap between Arabic-speaking girls and boys is even greater (0.7 to 0.2 SD).

Achievement by type of inspection: The mean achievements of Hebrew-speaking students enrolled in schools supervised by the Ministry of Education's secular inspection are slightly higher than those of students enrolled in schools supervised by the Ministry's religious inspection. Several studies showed that the variance is attributable mostly to the difference in SES between the two groups.

Achievement by socio-economic status: The mean achievements of Hebrew-speaking students of high SES are considerably higher (0.5-0.9 SD) than those of students of low SES. A fairly similar trend was found among Arabic-speaking students. The achievement gap between the upper and lower SES groups is consistent across time and assessments. Results from the PISA tests indicate that the gap in Israel is among the highest observed for all the participating countries.

Achievement of immigrant students and of special education mainstreamed students: The mean achievement of Hebrew-speaking immigrant students is considerably lower (about 1.5 SD) than that of Israeli-born students. The mean achievement of Hebrew-speaking mainstreamed students is also considerably lower (about -1.2 SD) than that of non-mainstreamed Israeli-born students. The mean achievement of Arabic-speaking mainstreamed students also falls considerably below (1.5 SD) the mean achievement of non-mainstreamed students.

Educational indicators: The most comprehensive examination of the relationships between educational indicators and achievement in the language domain was carried

out by the PISA 2000 Assessment, which focused on reading literacy. However, in many of the indicators examined, the average achievements were not consistent across achievement quartiles and their patterns differ to a large extent from the results obtained for the total international sample. This fact raises doubts about the credibility of the results and poses difficulties in their interpretation.