

# Key Literacy Skills for Primary School Pupils – Diagnostic Battery

The research group of the Department of Psychology of the Faculty of Education of Charles University has completed a GAČR (Czech Science Foundation) project in which different methods of text comprehension were observed. The aim of the new TAČR (Technology Agency of the Czech Republic) project is to extend the view and, on the basis of the research findings, respond to the limits of current psychodiagnostic testing, generate updated norms, and allow the counselling professionals to assess different aspects of literacy skills in a broader context.

## Introduction and aim of study

The evaluation of the level of young school-age pupils' reading literacy has a long tradition in the Czech Republic. Since the 1980s original Czech standardized diagnostic tools (Matějček et al., 1987; Caravolas & Volín, 2005; Bednářová et al., 2014; Seidlová Malková & Cara-

volas, 2017, etc.) with an emphasis on decoding with the extended concept of (as it is called) "reading technique" has been widely used in counselling centres in the Czech Republic. Reading precursors have also been examined. Additionally, some of the tools referred to above include basic diagnostic procedures to monitor reading comprehension on the sentence level (Caravolas & Volín, 2005) and on the text level (Matějček et al., 1987; Bednářová et al., 2014). In particular, on the text level, the comprehension tasks are designed to assess comprehension of a narrative text based on retelling a story. It is well accepted that this evaluation may be subjective and significantly influenced by other factors, such as, for example, the verbal fluency of the examinee, rather than his or her comprehension skills.

We build on current trends in the foreign literature (e.g. Gough & Tunmer, 1986; Cain & Oakhill, 2006; Keenan et al., 2008) and bring new approaches to evaluate different forms of comprehension which contribute to the development

of functional literacy from the developmental perspective. The new battery will therefore include tools assessing listening comprehension, different levels of comprehension (explicit, implicit, and interpretative), and comprehension of narrative and exploratory texts, as well as the basic ability to work with texts with respect to silent reading and individual writing tasks.

## Methodology

### Participants

According to the design of the study, 1000 monolingual, Czech-speaking primary school pupils (1st–5th grade) will be tested. In order to ensure representativeness of the sample, the sampling will reflect socio-economic factors (unemployment). The size of schools will also be taken into account when recruiting participants.

Recruitment is planned to be realized in cooperation with the National Institute for Education, which is an application partner of the project. The principles of ethical data processing will be followed in the research; the head of the school and then the parents will declare their agreement to the participation of pupils (informed consent). All data will be anonymized.

### Methods

The battery that has been designed inclu-

des a variety of tools to measure different aspects of literacy:

- Measures of reading related skills (Tests of phonemic awareness, Test of repeating of pseudowords).
- Linguistic awareness test (assessing morphology, word formation, and sentence comprehension).
- Decoding tests (Word reading test, Pseudoword reading test).

Comprehension tests. Comprehension tests are the basis of the new diagnostic battery. They are designed in four formats, each in three versions (for first graders, younger and older pupils). They consist of continuous texts that are followed by questions mapping explicit and implicit comprehension and developing an interpretation of the text. In one of the tasks the examinee does not answer questions but fills in missing words.

- Listening comprehension;
- Oral reading comprehension tests;
- Silent reading comprehension tests;
- Cloze tests.

Reader's self-concept assessment scale.

Environmental factors questionnaires (Questionnaire for schools, Questionnaire for parents).

When designing the tools, we build on the tools developed in the GAČR project P407/13-20678S Reading comprehension – typical development and its risks (for more information see Kucharská et al., 2015). For the validation of the results some subtests from standardized cognitive tests and standardized reading and writing tests will be used.

## Implementation of project output and its contribution

Professionals in the counselling system in education – psychologists and special education teachers working in school counselling facilities (pedagogical and psychological counselling centres, special education centres) and at schools (school psychologists, special education teachers) – deal with providing support to pupils with literacy difficulties, i.e. a broad group of pupils (specific learning disorders, speech and language disorders, socio-cultural disadvantage, disabled pupils, foreigners, gifted pupils, etc.). A diagnostic approach which seeks the causes of difficulties in reading and writing and provides information about the strengths and weaknesses of the child is the basis for the recommendations for interventions at school and in the home environment.

The battery that is designed will be distributed via training events at the National Institute of Education. One-day

training will be arranged in which the theoretical background, administration, evaluation, and interpretation of individual tests in relation to the target population of poor readers will be explained. To prevent misuse, the battery will not be available without this training.

The manual of new tools will be used for the diagnosis of literacy difficulties (reading difficulties) of pupils at primary schools, which is the most frequent problem needing to be solved in the counselling system. These tools are necessary for the school environment since pupils with reading difficulties account for up to 85% of pupils with special educational needs. We hope this new standardized material will not only help to refine the diagnostic process of poor literacy but will also help to target the intervention better.

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