

PISA Reading Literacy Subscales

PISA measures three aspects of reading literacy:

1. access and retrieval;
2. integration and interpretation; and
3. reflection and evaluation.

These aspects are described below.

"In both the print and digital media, tasks classified as *access and retrieve* involve skills associated with finding, selecting and collecting information. On some occasions readers seek specific pieces of information from a text: What time does the train leave? Who wrote this article? Sometimes finding the needed information is relatively simple, as it is directly and plainly stated in the text. However, access and retrieve tasks are not necessarily easy ones. Several factors may contribute to making such tasks challenging. For example, sometimes more than one piece of information is required or knowledge of text structures and features may be called upon. Tasks in the print medium might require readers to use navigation features such as headings or captions to find their way to the appropriate section of the text before locating the relevant information. In the digital medium, an *access and retrieve* question might involve navigating across several pages of a website, or using menus, lists or tabs to locate relevant information.

The aspect *integrate and interpret* involves processing what is read to make internal sense of a text. Integrating tasks require the reader to understand the relations between different parts of a text. These relations include problem-solution, cause-effect, category-example, equivalency, compare-contrast, and understanding whole-part relationships. To complete such tasks, the reader has to determine what the appropriate connection is. This may be explicitly signalled, as when the text states "the cause of X is Y", or may require an inference by the reader. The parts to be related may be near each other in the text or may be in different paragraphs or even in different texts. Interpreting refers to the process of making meaning from something that is not stated. It may involve recognizing a relationship that is not explicit or it may be required at a more local level, for example, to infer (to deduce from evidence and reasoning) the connotation of a phrase or a sentence. When interpreting, a reader is identifying the underlying assumptions or implications of part or all of the text.

Reflect and evaluate tasks involve drawing on knowledge, ideas or values external to the text. In reflecting on a text, readers relate their own experience or knowledge to the text. In evaluating a text, readers make a judgment about it, either drawing on personal experience or on knowledge of the world that may be formal or content-based. Reflecting on and evaluating the content of a text requires the reader to connect information in a text to knowledge from outside sources. To do so, readers must be able to develop an understanding of what is said and intended in a text. They must then test that mental representation against what they know and believe on the basis of either prior information or information found in other texts. Reflecting on and evaluating the form of a text requires readers to stand apart from the text, to consider it objectively and to evaluate its quality and appropriateness. Knowledge of text structure, of the style typical of different kinds of texts and of register play an important role in these tasks. While the kinds of reflection and evaluation called for in the print medium assessment are also required in the digital medium, evaluation in the digital medium takes on a slightly different emphasis. Sources for online information are more varied, ranging from authoritative sources to postings with unknown or uncertain credibility. Because the source of many digital texts is obscure and because it is much easier to distribute them widely and anonymously, such judgments are especially important for digital texts. All information must be evaluated in terms of accuracy, reliability and timeliness, but this is particularly important with online material. (*continued on next page*)

The three broad aspects defined so far are not conceived of as entirely separate and independent, but rather as interrelated and interdependent. Indeed from a cognitive processing perspective they can be considered to be semi-hierarchical: it is not possible to interpret or integrate information without having first retrieved it, and it is not possible to reflect on or evaluate information without having accessed the information, and very likely made some sort of interpretation. In PISA, however, while it is acknowledged that all aspects (as cognitive processes) are likely to play some role in each task, each task is designed to emphasise one or another of the aspects. Generally, the aspect classification for each PISA reading literacy task depends on the objective of the task. For example, retrieving a single piece of explicitly stated information from a web page (such as finding out the number of Internet users worldwide) would be classified as an access and retrieve task, even though it might involve a complex series of steps including the evaluation of the relevance of several results on a search result page, comparing and contrasting descriptions and deciding which of several sources is likely to be most authoritative."

OECD, *PISA 2009 Results: What Students Know and Can Do—Student Performance in Reading, Mathematics and Science*, Vol. I (OECD, 2010), pp. 42–43, <http://dx.doi.org/10.1787/9789264091450-en>.