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DEVELOPING COGNITIVE SKILLS IN PRIMARY SCHOOL PUPILS THROUGH READING AND COMPREHENDING LITERARY TEXTS: A METHODOLOGICAL APPROACH

Maxmudova Nigora Hikmatovna
Teacher at Asia International University
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Abstract. This article presents a classroom-oriented methodology for strengthening the cognitive abilities of children in grades 1–4 by means of systematic work with literary texts. Drawing on developmental psychology, transactional reading theory, and research on comprehension instruction, the author describes a three-phase lesson model (before, during, and after reading), a set of instructional techniques matched to particular thinking skills, and simple tools for observing pupils' progress. The proposed approach treats a story or poem not as material for oral drill but as a space in which young readers practise predicting, inferring, comparing, judging, and imagining.

Keywords: primary education; literary text; reading comprehension; cognitive skills; questioning; metacognition; teaching methodology.

Introduction

Reading in the early grades is no longer understood as the simple mastery of decoding. Once children can recognise letters and assemble words with reasonable fluency, the central task of the primary school moves toward helping them construct meaning, and at this point literary texts acquire a special instructional value. The shift from learning to read toward reading in order to learn is usually placed around the end of the primary cycle, which makes the early grades a decisive period for preparing children's thinking.[1] A tale, a fable, or a short poem places before a young reader a compact world with characters, motives, conflicts, and consequences, and each of these elements calls for mental work: anticipating what will happen, comparing one hero with another, explaining why an action was taken, and weighing whether it was right.

Sustained contact with books is linked with better language and reading outcomes from infancy to early adulthood.[2] Yet exposure alone does not guarantee that thinking develops. A child may read a whole story aloud without difficulty and still be unable to say why the main character changed his mind. What matters is the kind of talk, questioning, and task design that surrounds the text. For that reason the question addressed here is a methodological one: how should a teacher organise work with fiction so that comprehension becomes a vehicle for the growth of cognitive skills?

The article pursues three aims. First, it outlines the psychological and pedagogical ideas on which the approach rests. Second, it describes a lesson model and a group of techniques that can be used with pupils aged approximately six to ten. Third, it suggests ways of following the development of pupils' thinking without turning every lesson into a test.

[1] Chall, J. S. Stages of Reading Development. New York: McGraw-Hill, 1983, pp. 10–24.

[2] Mol, S. E., & Bus, A. G. To read or not to read: A meta-analysis of print exposure from infancy to early adulthood // Psychological Bulletin, 2011, 137(2), pp. 267–296.

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Theoretical Foundations

Several lines of research support the idea that literary reading can shape cognition. The first comes from developmental psychology. According to Piaget, children between roughly seven and eleven years of age operate at the stage of concrete operations: they reason logically, provided the content is tied to specific, imaginable situations.[3] A story is well suited to this stage, because abstract notions such as fairness, cause, or intention appear in it through events that pupils can picture and discuss.

The second source is the sociocultural tradition. Vygotsky argued that higher mental functions first appear in shared activity and only later become the child's own, and that instruction is most productive when it targets the zone of proximal development, the distance between what a pupil can do alone and what he or she can do with an adult's or a peer's help.[4] Translated into classroom terms, this means that the teacher's questions, prompts, and modelling of thought aloud are not extras added to reading; they are the mechanism through which reasoning is passed to the learner.

Third, transactional theory describes reading as an exchange between a particular reader and a particular text. Rosenblatt distinguished between an efferent stance, in which attention is directed to information to be carried away, and an aesthetic stance, in which the reader lives through the experience of the text itself.[5] Literary texts invite the second stance, and it is in this lived-through experience that children form images, feel with the characters, and take another person's point of view.

Fourth, cognitive models of comprehension help to specify what exactly has to be developed. Kintsch separates the textbase, that is, the meaning of the words and sentences actually on the page, from the situation model, a richer mental representation built by combining the text with the reader's own knowledge.[6] Younger pupils often stop at the textbase; they can repeat the sequence of events but do not connect it with causes, motives, or their own experience. Methodology for the primary grades should therefore be designed to move children from the first level to the second.

Finally, the notion of metacognition, introduced by Flavell, reminds us that skilled readers not only think but also monitor their own thinking: they notice when a passage does not make sense and know what to do about it.[7] Even seven-year-olds can be taught simple forms of such monitoring, for example by stopping at a puzzling sentence and asking, “Does this fit with what I already know?”

Cognitive Skills Targeted in Grades 1–4

The revised version of Bloom's taxonomy arranges cognitive processes from remembering and understanding through applying and analysing to evaluating and creating.[8] For primary pupils this scale

[3] Piaget, J., & Inhelder, B. The Psychology of the Child. New York: Basic Books, 1969, pp. 96–120.

[4] Vygotsky, L. S. Mind in Society: The Development of Higher Psychological Processes. Cambridge, MA: Harvard University Press, 1978, pp. 84–91.

[5] Rosenblatt, L. M. The Reader, the Text, the Poem: The Transactional Theory of the Literary Work. Carbondale: Southern Illinois University Press, 1978, pp. 22–47.

[6] Kintsch, W. Comprehension: A Paradigm for Cognition. Cambridge: Cambridge University Press, 1998, pp. 93–120.

[7] Flavell, J. H. Metacognition and cognitive monitoring: A new area of cognitive–developmental inquiry // American Psychologist, 1979, 34(10), pp. 906–911.

[8] Anderson, L. W., & Krathwohl, D. R. (Eds.). A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives. New York: Longman, 2001, pp. 67–68; cf. Bloom, B. S. (Ed.). Taxonomy of Educational Objectives. Handbook I: Cognitive Domain. New York: David McKay, 1956.

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can be translated into a manageable set of skills that literary reading is able to train. Six groups are proposed as the working core of the methodology.

The first group is attention and memory for narrative detail: holding the order of events in mind, noticing who speaks, and recalling the setting. The second is inference and interpretation, that is, going beyond the stated word to explain feelings, hidden reasons, and the meaning of figurative expressions. The third is comparison and classification, for instance sorting characters by their actions or contrasting two versions of the same folk tale. The fourth is evaluative reasoning: giving a judgement about a character's decision and supporting it with a reason taken from the text. The fifth is imaginative and creative thinking, expressed in continuing a plot, changing an ending, or re-telling from a different narrator's position.

The sixth group deserves separate mention. Fiction constantly requires the reader to work out what characters think, want, and believe, and some scholars argue that this habit of attributing mental states is exercised in a particular way by literary narratives.[9] Research on children's literature likewise suggests that picture books and stories offer young readers repeated practice in perspective-taking and in understanding causal links between events.[10] For this reason, perspective-taking and metacognitive monitoring are treated below as cross-cutting skills that accompany the other four groups rather than as isolated topics.

A Three-Phase Model of the Reading Lesson

The methodology is organised around a lesson cycle with three phases. Its underlying principles are as follows: the text is always read for a purpose that pupils understand; questions move gradually from literal to inferential and evaluative; talk among pupils is treated as a learning tool; teacher support is reduced as competence grows; and the child is regularly invited to reflect on how he or she arrived at an answer.

In the pre-reading phase the teacher activates background knowledge and sets a purpose. Pupils look at the title and illustration, guess what the text will be about, and recall what they already know about the topic or the genre. This short stage is important because a reader's expectations determine what will be noticed in the text, and wrong expectations, when later corrected, create a natural occasion for reflection.

During reading the text is divided into meaningful segments, and the teacher pauses at planned points. The pauses are used to check the prediction, to clarify an unfamiliar word or expression, to ask a question that requires an inference, and to model how a proficient reader thinks. Modelling has a special place here: the teacher says aloud, “I did not expect the fox to refuse; perhaps he suspects a trick,” and thereby makes an invisible mental operation visible for children to imitate.

After reading the class returns to the whole text. Pupils retell it in their own words, compare their interpretations, justify opinions, and complete a creative or analytical task. The phase ends with a brief reflection on the process: which question was hardest, what helped to understand the passage, and what would be done differently next time. Table 1 summarises the model and shows which skills each phase mainly supports.

[9] Zunshine, L. Why We Read Fiction: Theory of Mind and the Novel. Columbus: Ohio State University Press, 2006, pp. 3–27.

[10] Nikolajeva, M. Reading for Learning: Cognitive Approaches to Children's Literature. Amsterdam: John Benjamins, 2014, pp. 1–30.

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Table 1. Three-phase model of a literary reading lesson

Phase	Teacher's actions	Pupils' activity	Skills mainly developed
Before reading	Presents the title and picture; asks about prior knowledge; sets the reading purpose	Predict the content; recall related experience; formulate their own question	Activation of memory; prediction; motivation and attention
During reading	Stops at planned points; models thinking aloud; asks literal and inferential questions	Check predictions; clarify words; explain motives; visualise scenes	Inference; comprehension monitoring; imagery; perspective-taking
After reading	Organises discussion and creative tasks; guides reflection on the process	Retell; compare versions; justify judgements; change the ending; evaluate own work	Analysis; comparison; evaluation; creativity; metacognition

Instructional Techniques

Several well-documented techniques fit the three-phase model and can be adapted to short stories, fables, and poems typical of primary readers. Their common feature is that they make thinking observable and social.

Reciprocal teaching. Reciprocal teaching, developed by Palincsar and Brown, organises discussion around four strategies: predicting, questioning, clarifying, and summarising.[11] In grades 3–4 pupils may take turns in the role of the "teacher" for one paragraph, whereas in grades 1–2 the teacher leads and the children supply the predictions and clarifications with the help of picture cards.

Questioning the author. The Questioning the Author approach shifts attention from what the text says to what the writer is trying to say. Instead of asking a single comprehension question, the teacher poses open queries such as "What is the author telling us here?" or "Does the author explain this clearly?"[12] With young pupils the queries are simplified and attached to a few pre-selected places in the story.

Question types and sources of answers. Question–answer relationships teach children to notice that different questions require different sources of information: some answers lie "right there" in one sentence, others require the reader to "think and search" across the text, and still others depend on combining the text with what the reader knows.[13] Colour-coded question cards help pupils select an appropriate strategy and, at the same time, develop awareness of their own reading process.

Story-based inquiry. Short narratives can serve as starting points for philosophical or ethical inquiry, in which pupils examine a dilemma faced by a character and give reasoned arguments.[14] A fable

[11] Palincsar, A. S., & Brown, A. L. Reciprocal teaching of comprehension-fostering and comprehension-monitoring activities // Cognition and Instruction, 1984, 1(2), pp. 117–175.

[12] Beck, I. L., McKeown, M. G., Hamilton, R. L., & Kucan, L. Questioning the Author: An Approach for Enhancing Student Engagement with Text. Newark, DE: International Reading Association, 1997, pp. 18–40.

[13] Raphael, T. E. Teaching question–answer relationships, revisited // The Reading Teacher, 1986, 39(6), pp. 516–522.

[14] Fisher, R. Stories for Thinking. Oxford: Nash Pollock, 1996, pp. 9–21.

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about greed or a folk tale about a clever but dishonest hero is convenient material, since the moral question is contained in the plot and the class is free to disagree with the traditional conclusion, provided every opinion is supported by a reason. Texts from the pupils' own literary heritage, including Uzbek folk tales and modern children's stories, make such discussions closer to their experience.

Graphic organisers and dramatisation. Character maps, sequence chains, comparison tables, and "thinking triangles" (event, cause, consequence) transform an abstract mental operation into a visible object on paper. Role-play, hot-seating, and dramatisation add an embodied dimension, because a pupil who must answer questions in the role of a character is compelled to take that character's perspective and to justify its behaviour.

Sustaining engagement. Motivation is not a decorative element here. Pupils who read out of interest and choice engage more deeply with the text and persist longer with difficult passages.[15] A classroom library, opportunities to choose between two or three texts, and time for pupils to talk about what they have read therefore belong to the methodology as much as the questioning routines do.

Assessing the Development of Cognitive Skills

Assessment in this approach is primarily formative. Its purpose is to supply teacher and pupil with information that can be used immediately to adjust instruction.[16] Three sources of evidence are suggested. Observation sheets record how often a pupil offers an inference, supports a claim with a textual reason, or asks a question of his or her own. Short written or oral tasks, for example explaining a character's decision in two sentences, show the quality of reasoning at a given moment. Finally, portfolios containing retellings, drawings, altered endings, and self-reflections make it possible to compare work across a term.

It is useful to describe performance by levels rather than marks. At the first level a pupil reproduces facts from the text; at the second he or she explains a cause or motive with the teacher's help; at the third the explanation is independent and supported by a quotation or episode; at the fourth the pupil relates the text to other stories or to personal experience and forms an independent evaluation. Such descriptors let the teacher plan the next step for each child and give parents a clear picture of progress.

Practical Recommendations

Experience with this kind of work suggests several practical points. Texts should be selected for their thinking potential, not merely for length or vocabulary: a good text contains a gap, a surprise, or a dilemma that provokes discussion. The teacher should prepare three or four key questions in advance, moving from literal to inferential and evaluative, and should allow a pause of several seconds after each question, since young children need time to formulate a reasoned reply. Pupils should be encouraged to say "I think" and "because," so that opinions and reasons become a habit of speech. Errors should be treated as material for analysis, and the question "How did you get this answer?" should be asked of correct answers as often as of incorrect ones. Finally, the balance of the lesson matters: reading aloud, silent reading, group talk, and writing should alternate so that the same skills are practised through different channels.

[15] Guthrie, J. T., & Wigfield, A. Engagement and motivation in reading // Handbook of Reading Research. Vol. 3. Mahwah, NJ: Lawrence Erlbaum, 2000, pp. 403–422.

[16] Black, P., & Wiliam, D. Assessment and classroom learning // Assessment in Education: Principles, Policy & Practice, 1998, 5(1), pp. 7–74.

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Conclusion

Literary texts offer primary school teachers a rich and emotionally engaging resource for developing thinking. The methodology described above combines a clear lesson structure with techniques that ask children to predict, question, infer, compare, judge, and imagine, and it makes room for reflection on the reading process itself. Its theoretical basis lies in the ideas of concrete-operational reasoning, socially mediated learning, transactional reading, and metacognition, while its practical strength lies in the fact that it can be adapted to different texts and class sizes without special equipment. Further empirical work, in the form of classroom experiments with control groups and longitudinal observation, is needed in order to determine which combinations of techniques produce the largest gains at each age. Nevertheless, the available research and teaching practice already justify treating every reading lesson in the early grades as a lesson in thinking.

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