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DEVELOPING THE COGNITIVE ACTIVITY OF PRIMARY SCHOOL LEARNERS THROUGH WORK WITH LITERARY TEXTS IN READING LESSONS: A PEDAGOGICAL TECHNOLOGY

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https://doi.org/10.5281/zenodo.23186954

Abstract. Reading lessons in primary school are still commonly judged by how fluently and correctly a child voices a printed page, while the intellectual work accompanying reading remains largely outside the teacher's field of vision. This article proposes a pedagogical technology in which a literary text functions not as material for articulation practice but as an instrument for cultivating the cognitive activity of seven- to eleven-year-old learners. A four-component model of such activity is substantiated — perceptual-informational, analytical-interpretative, imaginative-creative and reflexive-evaluative — and a four-stage procedure is described: anticipation, guided analytical dialogue, transformation of the text, and reflexive self-assessment. The procedure is accompanied by a set of diagnostic criteria and observable indicators. Special attention is given to the pedagogical conditions without which the technology loses its developmental effect: the cognitive demand of the questions posed, the transfer of interpretative initiative to the child, and the systematic use of transformation tasks. The materials may be useful for primary school teachers, methodologists and researchers concerned with the intellectual development of younger schoolchildren.

Keywords: cognitive activity, primary education, literary text, reading lesson, pedagogical technology, interpretation, reflection, mental operations, reading comprehension.

Introduction

The primary school years form the period in which a child's intellectual instruments are assembled: the capacity to hold attention on a task, to separate the essential from the incidental, to establish causal links and to notice one's own misunderstanding. Reading occupies a privileged place among school subjects in this respect, because it is the only lesson in which a learner regularly encounters a whole, internally organised message created by another mind. Yet the didactic potential of this encounter is frequently reduced to technical parameters — speed, accuracy and expressiveness of oral reading — which are easy to measure but say almost nothing about what the child has understood.

The contradiction that motivates this study is therefore practical rather than speculative. On the one hand, curricular documents in primary education increasingly formulate their aims in terms of thinking skills: comparison, inference, argumentation, evaluation. On the other hand, the lesson design that dominates classroom practice — read aloud, retell, answer factual questions — engages mainly reproductive memory and leaves the higher operations untrained. A child who can recount the sequence of events in a story may still be unable to explain why a

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character acted as he did, or to recognise that the narrator's judgement differs from his own.

The aim of the article is to substantiate and describe a pedagogical technology that converts work with a literary text in reading lessons into a means of developing cognitive activity in primary school learners. Three research tasks follow from this aim: to clarify the structure of cognitive activity as it manifests itself in reading at this age stage; to design a sequence of instructional stages that engages each structural component; and to propose criteria and indicators enabling a teacher to judge progress without specialised psychometric equipment.

The novelty of the proposed approach lies not in the invention of new exercise types — many of the techniques described below are familiar to experienced teachers — but in their arrangement into a coherent, reproducible sequence whose logic is derived from the structure of the mental activity to be developed rather than from the structure of the text to be covered.

Theoretical background

The understanding of cognitive activity adopted here rests on the cultural-historical premise that higher mental functions originate in shared activity and only later become individual possessions. In Vygotsky's account, what a child accomplishes today with the assistance of an adult constitutes the content of what he will accomplish independently tomorrow; consequently, the developmental value of a reading lesson depends less on the difficulty of the text than on the quality of the joint intellectual work organised around it. A text slightly beyond the child's autonomous reach, discussed under competent guidance, does more for thinking than an easy text read in silence.

A second line of reasoning comes from research on reading comprehension as a constructive process. Comprehension is not the extraction of a meaning deposited in the text but the building of a mental representation in which textual information, prior knowledge and inferential activity are combined. This explains why two children who decode identically may understand differently, and why comprehension instruction that ignores inference generation produces limited results. The strategies documented in this tradition — predicting, questioning, clarifying, summarising, visualising — are valuable precisely because each of them externalises an otherwise invisible mental operation and thereby makes it teachable.

Third, the specifically literary nature of the material must be taken into account. A literary text differs from an informational one in that it does not state its principal content directly: motives are implied, evaluations are embedded in imagery, and the same episode admits several defensible readings. Reader-response theory describes reading as a transaction in which the text constrains but does not determine the meaning produced. For the primary classroom this has a concrete methodological consequence: the question 'what happened in the story' has one correct answer and trains memory, whereas the question 'why did the author let it happen in this way' has several defensible answers and trains reasoning.

Finally, the graduated demand of cognitive tasks is treated here in terms of the familiar hierarchy of thinking operations, from recall and comprehension through application and analysis to evaluation and creation. Classroom observation repeatedly shows that the overwhelming majority of questions addressed to younger schoolchildren belong to the two lowest levels. The technology described below is,

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in essence, an attempt to redistribute that proportion systematically and without lengthening the lesson.

Materials and methods

The study is theoretical and methodological in character. Its procedure combined the analysis of scholarly literature on the intellectual development of younger schoolchildren and on the teaching of reading comprehension; the analysis of primary-grade reading curricula and textbook task systems with a view to establishing the actual distribution of cognitive demand; structured observation of reading lessons, in the course of which the questions addressed to learners were recorded and classified by level of mental operation; and pedagogical modelling, through which the stages, techniques and diagnostic apparatus of the technology were designed.

The material for instructional design consisted of short prose and poetic works of the kind normally included in primary reading anthologies: folk and literary tales, realistic short stories about children and animals, fables and lyrical miniatures. Texts were selected according to three criteria: the presence of an implicit motive or evaluation that cannot be read off the surface; brevity sufficient for the whole text to be held in mind during discussion; and an emotional register accessible to the age group.

The structure of cognitive activity as it manifests itself in reading was modelled through four interrelated components. Their content and observable manifestations are summarised below.

Table 1. Components of the cognitive activity of primary school learners in work with a literary text

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Component	Content of the component	Observable manifestations in the lesson
Perceptual-informational	Attentive reception of th text, retention of factual and compositional detail, orientati in the sequence of events	The learner restores the order of episodes, locates the needed fragment, distinguishe essential detail from incidenta
Analytical-interpretati	Establishment of causal and motivational links, inference of what is implied, comparison of characters and situations	The learner explains a character's motive, justifies a judgement by reference to the text, notices a contradiction
Imaginative-creative	Recreation of images, modelling of alternative developments, transformation of the text into another form	The learner continues or reworks an episode, describes scene not depicted verbally, changes the point of view
Reflexive-evaluative	Awareness of one's own understanding and its gaps, evaluation of the text and of one's own reasoning	The learner formulates what remained unclear, recognises a change in his owr opinion, evaluates the argume of a classmate

Results: the structure of the technology

The technology is realised as a four-stage cycle covering one or two lessons devoted to a single work. The stages are not interchangeable: each prepares the mental material required by the next, and the omission of any one of them returns the lesson to its reproductive form.

The first stage, anticipation, precedes the reading itself. Working from the title, an illustration, a key sentence or an unfamiliar word taken out of context, learners advance suppositions about what the text will contain and briefly justify them. The pedagogical sense of this stage is twofold: it activates the prior knowledge on which comprehension will rest, and it creates a personal expectation against which the actual text will later be measured. A supposition that proves wrong is didactically more valuable than one that proves right, since it forces the reader to ask what in the text he had failed to foresee.

The second stage, guided analytical dialogue, follows the first reading. Here the teacher's questions carry the entire developmental load, and their construction is therefore governed by a rule of proportion: no more than one third of the questions may address factual retrieval, while the remainder must require inference, comparison, justification or evaluation. Questions are formulated so that the answer cannot be located as a ready-made sentence in the text — 'what made the boy change his mind', 'which of the two characters had the harder choice, and why', 'what would have been lost if this episode had been omitted'. The teacher's role shifts from that of an examiner verifying answers to that of a participant who asks for grounds.

The third stage, transformation of the text, requires learners to reconstruct the material in a form other than the original: to retell an episode from the point of view of a secondary character, to compose a letter from one character to another, to

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convert a narrative into a sequence of scenes, to invent a continuation consistent with the established logic of the plot, or to compress the work into a single sentence conveying its principal idea. Transformation is the most reliable indicator of genuine comprehension, because a text that has not been understood cannot be recast; at the same time it engages the imaginative-creative component, which conventional questioning leaves idle.

The fourth stage, reflexive self-assessment, closes the cycle. Learners state in a few sentences what they had understood differently before the discussion, which question proved the most difficult, and what remains unclear to them. The practice is deliberately kept brief and non-evaluative in the marking sense: its purpose is to accustom the child to observing his own thinking, which at this age stage is only beginning to become an object of awareness.

Table 2. Stages of the technology, dominant operations and instructional techniques

Stage	Dominant ment operation	Instructional techniques	Component engaged
1. Anticipation	Hypothesis, prediction, activation prior knowledge	Reading the title and illustration; a key word out of context; 'what will happen and why do you think so'	Perceptual-informational; analytical-interpretativ
2. Guided analytical dialogue	Inference, comparison, causal reasoning, argumentation	Questions with r ready answer in the te comparison of characters; justificatio by textual evidence; disputed judgements	Analytical-interpretative
3. Transformation of th text	Reconstruction, modelling, generalisation	Retelling from another point of view; letter of a character; continuation of the plo compression into one sentence	Imaginative-creative; analytical-interpretative
4. Reflexive self assessment	Reflection, self-monitoring, evaluation	'What did I understand differently' the most difficult question; what remain unclear	Reflexive-evaluative

Diagnostic criteria

Since the technology is addressed to the practising teacher, its diagnostic apparatus deliberately avoids instruments requiring special training. Progress is judged along four criteria that correspond to the components of the model and can be recorded in the course of ordinary lesson work.

The criterion of interpretative depth is assessed through the child's answers to questions requiring inference: at the low level the answer reproduces a textual

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sentence, at the intermediate level it states a motive without grounds, and at the high level it states a motive and supports it with a textual detail. The criterion of question quality is assessed through the questions the learner himself formulates about the text, since the shift from factual to causal and evaluative questions is among the most reliable signs of developing thought. The criterion of productivity of transformation is assessed through the coherence of the child's reworked text with the logic of the original. The criterion of reflexive awareness is assessed through the specificity with which the learner names his own difficulty: the reply 'everything was clear' and the reply 'I did not understand why he kept silent at the end' testify to different levels of self-monitoring.

Each criterion is recorded on a three-level scale over a cycle of several lessons, which allows the teacher to detect the uneven development that is typical for this age: a child may reason confidently about motives yet be unable to formulate a question, or produce an imaginative transformation while remaining unaware of the gaps in his own understanding.

Discussion: pedagogical conditions

Practice shows that the same sequence of stages can yield markedly different results, and the difference is accounted for by several conditions rather than by the techniques themselves.

The first condition is the cognitive demand of the questions actually asked. A teacher may preserve the outward form of analytical dialogue while filling it with factual retrieval, in which case the lesson changes its name but not its effect. Monitoring the proportion of question types — by a simple tally kept during or after the lesson — is the most economical means of self-correction available to the teacher.

The second condition is the transfer of interpretative initiative to the learner. If every discussion converges on the interpretation the teacher had in mind from the outset, children rapidly learn to guess the expected answer instead of constructing their own, and the analytical dialogue degenerates into a search for the adult's opinion. Defensible divergence of readings must therefore be not merely tolerated but treated as the normal outcome of work with a literary text.

The third condition is the systematic character of transformation tasks. Used occasionally, as entertainment at the end of a unit, they produce no developmental effect; used regularly, they gradually restructure the child's manner of reading, since a reader who expects to have to recast the text attends to it differently from the outset.

The fourth condition concerns the emotional safety of the reflexive stage. Admission of non-understanding is a cognitively productive act, but a child will make it only where such an admission is not penalised. Where reflection is graded, learners report that everything was clear, and the component the stage was designed to develop remains untouched.

The limitations of the present study should be stated plainly. The technology has been substantiated theoretically and modelled methodologically, but the quantitative assessment of its effect requires a longitudinal experiment with control and experimental groups, comparable initial levels of cognitive activity and an observation period covering at least one academic year. Such verification constitutes the natural continuation of this work. A further open question concerns

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the applicability of the model to learners with reading difficulties, for whom the decoding load may absorb the resources the technology presumes to be available for analysis.

Conclusion

Work with a literary text in the primary grades possesses a developmental potential that the prevailing lesson design realises only in part. When reading is organised around the reproduction of content, it trains memory and articulation; when it is organised around the construction of meaning, it trains the operations that constitute cognitive activity.

The technology proposed in this article rests on a four-component model of that activity and translates it into a reproducible instructional cycle — anticipation, guided analytical dialogue, transformation of the text, reflexive self-assessment — with criteria that permit the teacher to follow progress without specialised diagnostic instruments. Its practical value lies in the fact that it demands no additional lesson time and no change of teaching material: what changes is the character of the questions asked and the kind of intellectual work expected of the child.

Three conditions determine whether the technology functions as intended: the predominance of questions requiring inference over questions requiring recall, the genuine transfer of interpretative initiative to the learner, and the regular rather than occasional use of transformation tasks. Empirical verification of the model's effectiveness in a longitudinal design constitutes the next stage of the research.

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