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DEVELOPING PRIMARY SCHOOL PUPILS' CRITICAL THINKING THROUGH INTERACTIVE TEACHING METHODS

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Abstract: The development of critical thinking is an essential objective of contemporary primary education, as it enables pupils to analyse information, identify relationships, evaluate evidence, formulate reasoned conclusions, and solve problems independently. Interactive teaching methods provide opportunities to develop these competencies by engaging pupils in dialogue, collaborative learning, problem-solving, inquiry, and reflection. It concludes that systematic, age-appropriate, and curriculum-aligned use of interactive teaching methods can create favourable conditions for developing critical thinking, provided that pupils are encouraged to explain their reasoning, support their opinions with evidence, consider alternative perspectives, and reflect on their learning.

Keywords: critical thinking, primary education, interactive teaching methods, independent thinking, problem-based learning, collaborative learning, reflective thinking, analytical skills, formative assessment, learner-centred education.

Primary education provides the foundation for pupils' intellectual, social, linguistic, and personal development. During this stage, children acquire essential knowledge and develop the cognitive and learning strategies that influence their subsequent academic progress. Therefore, contemporary primary education should not be limited to memorising information or reproducing textbook content. It should also encourage pupils to ask questions, investigate problems, compare ideas, evaluate information, and explain their conclusions.

Critical thinking is particularly important in an educational environment characterised by an increasing volume of information and diverse sources of knowledge. Pupils need opportunities to distinguish relevant information from irrelevant details, recognise differences between facts and opinions, identify relationships, and develop explanations supported by appropriate evidence.

Facione (1990), in the influential Delphi Report, identifies interpretation, analysis, evaluation, inference, explanation, and self-regulation as central dimensions of critical thinking. Although these dimensions are commonly discussed in relation to general critical thinking, they can be adapted to primary education through age-appropriate classroom tasks.

For example, a pupil reading a short story may identify the main idea, explain why a character acted in a particular way, compare two characters, and support an interpretation with details from the text. Such activities require more than recalling information: they involve interpreting evidence and constructing a reasoned response.

The objectives are:

1. To examine the theoretical foundations of critical thinking in primary education.
2. To identify the pedagogical opportunities offered by interactive teaching methods.

3. To describe practical methods for developing analytical, evaluative, and reflective thinking.
4. To propose a structured framework for integrating interactive methods into classroom instruction.
5. To develop practical lesson activities and assessment criteria.
6. To identify the pedagogical conditions and implementation challenges associated with critical thinking instruction.

The article addresses the following questions:

- How can critical thinking be understood and developed at the primary school level?
- Which interactive teaching methods can create opportunities for critical thinking?
- How should teachers organise classroom activities to encourage evidence-based reasoning?
- Which assessment criteria can be used to monitor pupils' developing critical thinking skills?

Critical thinking is a purposeful process of examining information, interpreting evidence, evaluating possible explanations, and making reasoned judgements. It involves both cognitive skills and dispositions, including intellectual curiosity, openness to alternative viewpoints, willingness to reconsider an opinion, and attention to the quality of evidence.

Facione (1990) identifies several important cognitive skills:

- Interpretation: understanding and clarifying information.
- Analysis: identifying relationships between ideas, statements, and evidence.
- Evaluation: assessing the credibility of claims and the relevance of supporting information.
- Inference: drawing reasonable conclusions from available evidence.
- Explanation: presenting the reasons behind a judgement.
- Self-regulation: reviewing and improving one's own thinking.

These skills can be developed progressively in primary school. Younger pupils may begin by identifying similarities and differences, explaining simple choices, and distinguishing observable facts from personal preferences. More advanced pupils can compare explanations, evaluate evidence, recognise contradictions, and defend conclusions in structured discussions.

Critical thinking at this level should not be confused with criticism, disagreement, or the rejection of other people's opinions. Rather, it involves examining ideas carefully, asking relevant questions, and giving reasons for accepting or rejecting a claim.

Applied to primary education, reflective thinking begins when pupils encounter a meaningful question or situation that cannot be resolved through immediate recall alone.

For example, after reading a story, pupils may be asked: "Was the character's decision the best possible choice?" To answer, they must recall relevant events, consider the character's circumstances, compare possible decisions, and justify their conclusions.

The teacher's role is to create opportunities for inquiry rather than immediately providing the expected answer.

Constructivist perspectives emphasise that learners actively construct understanding by connecting new information with prior knowledge and experience.

Piaget's work on cognitive development highlights the importance of developmental readiness and active engagement in learning. Vygotsky (1978) emphasises the role of social interaction and guided participation in the development of higher psychological processes.

The "Think–Pair–Share" method provides three stages of participation.

1. Think: each pupil considers a question independently.
2. Pair: pupils discuss their ideas with a partner.
3. Share: pairs present their conclusions to the class.

This method can support critical thinking because it provides individual reflection before group discussion. It also gives pupils opportunities to compare interpretations and explain their reasoning.
For example, after reading a story, the teacher asks, "Which character made the most responsible decision?" Pupils first formulate their own answers, then compare their views with a partner, and finally present a conclusion supported by details from the story.
The teacher should encourage pupils to refer to the text rather than merely state personal preferences.
A problem-based learning sequence can include:

1. Identifying the problem.
2. Determining what information is needed.
3. Suggesting possible solutions.
4. Comparing the advantages and limitations of each solution.
5. Selecting a solution and explaining the decision.
6. Reflecting on the outcome.

For example, pupils may be asked to plan a small school garden with limited space. They need to decide where to place different plants, explain their choices, and consider sunlight, water, and available space.
The teacher facilitates the process by asking questions and helping pupils identify missing information without solving the problem for them.
The following example demonstrates how interactive teaching methods can be combined in a primary classroom.
Subject: Mother Tongue / Reading
Topic: Analysing Characters and Their Decisions in a Story
Suggested grade: Grade 3 or Grade 4, depending on the curriculum
Duration: 40 minutes
Learning objective: Pupils will identify a character's actions, support an interpretation with evidence from the story, compare alternative decisions, and formulate a reasoned conclusion.
The teacher presents a short story containing a situation in which a character must make a decision.
Before reading, pupils examine the title and illustration and predict what the story might be about.
The teacher asks:

- What do you think might happen?
- Which details helped you make this prediction?
- Could the story develop differently?

Pupils are encouraged to explain the basis of their predictions.
Pupils read or listen to the story.
The teacher asks them to identify the main characters, the central problem, and the important events.
Pupils distinguish information explicitly stated in the text from their own interpretations.
Pupils work in pairs using the "Think–Pair–Share" method.
They discuss the following question:
Was the main character's decision appropriate in the circumstances?
Each pair identifies at least one detail from the story that supports its conclusion.
Different interpretations are welcomed when they are supported by relevant evidence.
Pupils formulate a short response using the Claim–Evidence–Reasoning structure.
For example:

- Claim: The character made a responsible decision.
- Evidence: The character considered the consequences before acting.

- Reasoning**:** Considering possible consequences helped the character avoid an unnecessary risk.

The specific response will depend on the story selected by the teacher.
Pupils complete a brief reflection:

- What was your original opinion?
- Which detail most influenced your conclusion?
- Did you consider another point of view?
- Would you change your answer after the discussion? Why or why not?

The teacher assesses pupils' reasoning rather than whether they agree with a predetermined interpretation.
This lesson model integrates comprehension, analysis, comparison, argumentation, and reflection. It can be adapted to different reading texts and curriculum objectives.
Assessment should focus on the quality of pupils' thinking rather than the frequency of their participation or the length of their answers.
A pupil who speaks frequently does not necessarily demonstrate stronger critical thinking than a pupil who contributes less often but provides a well-supported explanation.
Teachers may use it alongside pupils' written work, oral explanations, observation notes, group tasks, and learning portfolios.
Assessment should be constructive. Errors provide opportunities to identify misunderstandings and improve reasoning rather than simply assigning a mark.
Further studies should investigate the effectiveness of specific interactive methods across different primary school grades and subjects, with attention to assessment validity, long-term development, and the transfer of reasoning skills to new situations.

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