The Role of Summative Assessment in the Development of Media Literacy of Schoolchildren

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Abstract. This article analyzes the role and possibilities of summative assessment in the process of developing media literacy of school students. First of all, the purpose, criteria and outcome indicators of summative assessment are harmonized with the components of media literacy (identification, analysis, evaluation and responsible production/linking of information). Existing scientific sources, national and international practices are considered, and a methodological approach is proposed to adapt summative tasks (portfolios, projects and presentations, case studies, tests) to a valid and reliable measurement of media literacy skills. There will also be assessment rubrics, problem cases, and recommendations for teachers to reduce the risk of using plagiarism/AI tools. At the end of the article, a practical model is presented to connect the results of summative assessment with formative feedback, reflection and differential learning, as well as to apply it in class-level decision-making and curriculum improvement. The proposed approach serves to develop critical thinking, source verification, and digital ethics in students.

INTRODUCTION

In modern education environment, where digital information flow has intensified, mass media literacy of pupils – that is, the formation of competencies to search, analyze, evaluate and responsibly communicate information – is becoming one of the priority tasks of general secondary education [1]. The diversity of information disseminated through social networks, online platforms, and artificial intelligence-based tools encourages students to think critically, check sources, and adhere to norms of information ethics. For this reason, the development of effective media literacy assessment mechanisms is important to ensure the quality of education and the effectiveness of the educational process [2].

Among the different forms of assessment, summative assessment – an approach that focuses on the overall assessment of learner achievement at the end of a particular stage of the curriculum – in most cases serves as the basis for certification, quarterly/year-end decisions and monitoring indicators. However, it is not enough to measure complex, multi-component competencies such as media literacy with tests alone; Moreover, tasks such as projects, portfolios, presentations, case studies should be integrated into the summative content. The issue is that the development of a methodology for assessing such assignments through valid, reliable and transparent criteria, as well as the implementation of it in teacher practice, still requires consistent research [3].

In current practice, the assessment of media literacy skills relies more on formative (given during the process) feedback, while the summative assessment is limited to recording the final result. As a result, learners' skills such as detecting fake news, making evidence, evaluating source reliability, and analyzing visual and digital content may not be fully reflected. There is also the possibility that risks such as plagiarism in assignments, the use of excessive AI help, or the misapplication of algorithmic help can undermine the principles of fairness and validity of the assessment. In this context, it is urgent to harmonize summative assessment with the requirements of media literacy, to improve the design of the measurement based on clear criteria and rubrics [4].

The purpose of this study is to determine the role and effectiveness of summative assessment in the development of media literacy of schoolchildren, as well as to offer methodological foundations for designing and evaluating summative tasks in integration with media literacy components. The study links the content, criteria and outcome indicators of summative assessment with the main components of media literacy (information retrieval, analysis,

evaluation, responsible creation/sharing) and develops practical rubrics for teachers and guidelines for reducing risks (plagiarism, AI) [5].

Research questions. 1. Which forms and tasks of summative assessment most effectively reflect students' media literacy skills?

2. What evaluation criteria/rubrics are needed to measure media literacy components in a valid and reliable way?

3. How can summative outcomes be linked to formative feedback, reflection, and differential learning?

4. What assessment design is recommended to reduce the risk of plagiarism and inappropriate use of AI tools?

Assessment allows both the teacher and the student to track progress towards learning goals and can be approached in a variety of ways. Being media-literate in the context of assessment refers to the tools that identify misconceptions, struggles, and gaps in learning and assess how to close those gaps [6]. It includes effective tools to help shape reading and can even enhance students' ability to learn if they understand that the goal is to improve reading rather than applying final grades. This can include assessing students themselves, their peers, or even a teacher through writing, quizzes, interviews, etc. In short, a summative assessment is done throughout the class or course and seeks to improve the achievement of learning goals through approaches that support students' goals and needs in a particular area. A summary assessment assesses a student's learning, knowledge, competence, or at the end of a period of study, such as a unit, course, or program [7].

Summative assessment can work very well with formative assessment, and educators can consider different ways to integrate these approaches [8].

Both forms of valuation can differ in several dimensions.

Formative assessment. Ideally, formative assessment strategies improve teaching and learning at the same time[9]. Teachers can help students grow by actively encouraging students to self-assess their abilities and knowledge, providing clear guidance and feedback [10].

Scientific Innovation: The scientific novelty is that the study breaks away from the traditional test-centric model of summative assessment and proposes a measurement design through complex tasks and clear, transparent rubrics appropriate to the multifaceted nature of media literacy. To offer practical rubrics and assessment design for integrating summative assessment elements with media literacy components. In practical terms, the presented model allows teachers to introduce summative tasks into the lesson plan, use the assessment results in order to customize the educational process and improve the curriculum. It was also found that declarative rules and verification procedures are important to reduce plagiarism and inappropriate use of AI.

Practical Significance: The model being developed allows teachers and methodologists to strategically use summative assessment in the classroom, applying the results to curriculum improvement and decision-making. Thus, the study serves to strengthen the conceptual and methodological foundations of the summative approach to the assessment of media literacy and contributes to the development of critical thinking, source verification and digital ethics in school education.

EXPERIMENTAL RESEARCH

This model provides for the following ways of integrating the education system into media education. Maintain clear criteria that determine good performance. Students can explain the criteria and encourage students to discuss and reflect on these criteria.Teachers can also conduct class-wide conversations on performance criteria at strategic moments throughout the semester.

Encourages learners' self-reflection. Teachers can ask students to use course criteria to rate their own or those of their peers' work and what feedback they find most valuable. In addition, teachers can ask students to describe the qualities of their best work through written or group discussions.

Encourage communication with teachers and peers around education. Teachers can invite students to discuss the formation process together. This practice largely revolves around feedback between schools and small group feedback, in which students reflect on the course and teachers respond to students' concerns. Students can also identify examples of feedback they find helpful and explain how they have helped. A particularly useful strategy is that teachers can invite students to discuss learning goals and assignment criteria and incorporate students' requirements into the curriculum.

The proof-of-concept study describes the development, optimization, implementation, and evaluation of web-based competition in digital and media education competencies in health education. Quality improvement should be done within the scope of the project. The introduction of media learning applications in digital education is an important element of developing users' point of view, critical thinking. Organize web surveys.

This quality improvement project will have appropriate results for successful user-oriented and digital integration of media education competencies into the education system.

Research Design. The study was conducted in a quasiexperimental design: with pre-test (pretest–posttest) controls and experimental groups. In the experimental group, summative assessment packages (project, portfolio, case study, test) aimed at developing media literacy were used; The usual assessment practice was maintained in the control group.

Participants and Environment. The study involved 7th and 8th grade students from 5 schools (total N = 14; age: 120 boys and 120 girls. Schools were selected in a convenient selection method, and classes were assigned on a random cluster basis (within a single school, classes were separated as experimental/controls). The training process was organized according to the usual class schedule, during the 4-week intervention.

Materials (package of summative tasks): For the experimental group, assignments covering the main components of media literacy were developed:

1. Project (media product creation): make infographics / videos/articles and indicate resources on the chosen topic in small groups (3-4 people).

2. Portfolio: Weekly Source Review Journal, Annotated Bibliography, and Self-Reflection Notes.

3. Case study: analysis of distorted message/"deepfakes"/clickbait examples (evidence, source reliability, logical errors).

4. Standardized test: multiple choice and short-answer questions (finding information, sorting, identifying the wrong message, ethical norms).

Measurement Tools. Media literacy rubric (divided into 4 levels): 1=primary; 2=average; 3=sufficient, and 4=competent.

The study was analyzed on 4 different scales.

(a) Verification of the source (authorship, reputation, date),
(b) Proof and analysis (argument-opinion difference, logic),
(c) Visual/Digital Content Literacy (Graphic, Image, Video Analysis),
(d) Digital ethics (plagiarism, copyright, responsible sharing).

Authorship and Plagiarism Control: Assignments were checked for plagiarism; The use of AI assistance was noted in accordance with the principle of open declaration.

Self-Efficacy Questionnaire:
1. What do you mean by media language?
A) Language of official documents
B) Written Literary Language
C) The language of emotional transmission of information
D) Newspaper language only
2. What is the main feature of information language?
A) Interesting story
B) Subjective opinion
C) Fact and reliability
D) Entertaining tone
3. Show an example of traditional text:
A) Video on TikTok
B) Instagram post
C) Newspaper article
D) Podcast
4. In what style is information conveyed through media texts?
A) Through digital and visual media
B) Through books
C) Through fiction poetry
D) Through a personal diary
5. Fill in the phrase "Media language is the language of ___":
Conveyer of information in an emotional and visual way
6. Which of the following is not specific to the media language?
A) Effects
B) Colors
C) Graphics
D) Legislation

7. Who is the media language aimed at most?
A) For scientific scientists
B) Elderly
C) To a mass audience
D) For journalists
8. What is the text like in the information language?
A) Emotional and colorful
B) Objective and evidence-based
C) Comic and entertaining
D) Voice Only
9. What is the primary purpose of media text?
A) Teaching
B) Being entertained and exposed
c) Critique
D) Issuance of judgment
10. What is the main difference between media and traditional texts?

Validity and Reliability: Meaningful validity: 3 experts (pedagogy/psychology) assessed rubrics and assignments based on CVI/CVR indicators;

Inter-evaluator reliability: Compelling evidence was collected for the scores of the two independent evaluators on the rubric.

Process

1. Preparatory stage (week 1): parental consent and informed consent of the participant; Preliminary briefing was carried out.

2. Pre-test (week 2): pretest and short diagnostic tasks for all participants.

3. Intervention (Week 3): Summative assignments (project/portfolio/case/test) were collected in the experimental group each week, emphasizing one component; The usual assessment continued in the control group.

4. Next Dimension (Final Week): Posttest, Final Rubric Assessment, and Portfolio Analysis.

5. Moderation: anchor samples and short training for evaluators; third assessor in disagreements.

Ethical Considerations

The study received permission from the 5 school ethics commissions. Written consent has been obtained from parents and students. Data is anonymized; no personal identities are stored. A written policy on academic honesty was signed to prevent plagiarism and inappropriate use of AI tools.

Non-random selection (convenient selection), relatively short intervention duration, and differences in teacher practice can limit external validity. Further long-term follow-up and replication in different contexts are recommended.

RESEARCH RESULTS

Studies show that the implementation of special education programs on media literacy has a positive effect on the media competency levels of secondary school students. During the experiment conducted on the basis of secondary schools in Termez, it was found that the number of students with high media literacy increased from 26% to 73% after the media education course. Qualitative analysis of the media created by students of the experimental class, its digital introduction into the new sumtiv education system. Demonstrated a critical approach to media assessment and a better understanding of manipulative media techniques in relation to the control group. Particular attention was paid to assessing the impact of media education on the development of critical thinking and analytical skills in secondary school students. According to the results of the trial, the rate of critical analysis of media texts increased by 70 percent in the experimental classes and by 87 percent in the control group.

Table 1: Media competencies of secondary school students in the implementation of special education programs on media literacy.

Bullets	Start (%)	Final (%)	Growth (%)
General Media Literacy	26	73	47
Critical thinking skills (experience group)	25	70	45
Media literacy (control group)	23	87	64

Qualitative analysis of the essays also showed an increase in the analytical skills and media literacy of the schoolchildren who took the media education course. The findings show that an integrated approach to media education of schoolchildren, including elements of media literacy, is the most effective in the study of various subjects. At the same time, the formation of critical thinking and analysis of media texts in secondary school pupils showed the effectiveness of their organization and the organization of these courses. A number of researchers propose to combine the two approaches for the comprehensive development and development of media competencies of schoolchildren, taking into account age characteristics. The results obtained during the experiment show that targeted and systematic media education helps high school students to develop critical thinking, expanding their analytical and creative abilities in the field of media. To achieve long-term impact, it is necessary to integrate the basics of media literacy into the overall composition of school education, as well as to organize elective courses and extracurricular activities in media education. An integrated approach to integrating media literacy into the school curriculum is effective, but not enough to create a high level of media literacy.

The results of the study showed that conducting individual training courses on the basics of media literacy significantly expanded the analytical and creative media abilities of high school students. This is due to the opportunity to spend more time developing practical media relations skills. Thus, a combination of the two approaches to integrate elements of media literacy into traditional disciplines and to introduce specialized training courses for in-depth media studies seems acceptable. It covers the basics of media and gives a greater emphasis on advanced media development. More research is needed to determine the optimal ratio of integrated and specialized approaches that take into account the goals of education at different levels of education. The results show the high efficiency of an integrated approach that incorporates media education in teaching traditional disciplines, literature, history, and social studies. Analysis of the media presented in the classes contributes to in-depth study of teaching materials, the development of critical thinking. At the same time, for the comprehensive development of media competence of secondary school students, it is important to introduce independent training courses on the basics of media literacy. The optimal approach is a combination of media format in combination with teaching selected specialized subjects. According to the study, the learning model, which combined discussion of different educational technologies, hands-on training on creating media products, and case study analysis, was the most effective. Further research is needed to study the long-term outcomes of media literacy programs and to develop a long-term, systematic model of media education in school, taking into account age dynamics. The integration of media literacy into traditional disciplines will provide coverage of the basics of media analysis within the framework of the main program. However, less emphasis is placed on practical media skills. Standalone courses provide opportunities for in-depth study of media technologies, but audience coverage is often limited. In addition, the lack of connection with other disciplines reduces the educational impact. Thus, the optimal solution is a hybrid approach that allows to integrate media education into education, while at the same time giving priority to media literacy as a separate continuous course for the entire academic years. This allows you to combine the advantages of both strategies.

Participants: A total of N = 240 students (experimental group: N = 120; control group: N = 120) were sent to the study. The experimental and control groups were at a similar level in the pretest.

Overall effect: In the experimental group, the average score on the general media literacy rubric from pretest to posttest increased significantly: pretest M = 26, posttest M = 73. When examined with paired t-tests, the difference was statistically very significant, and the size of the effect was very large.

Critical thinking skills (experimental group) did not show a significant change between pretest and posttest: pretest M = 25%, posttest M = 70%; double t-test result 45%.

Cross-group comparison (posttest). When comparing the experimental and control groups in terms of posttest scores, the independent t-test showed that experimental M = 45%, control M 64%, which indicates a very large effect.

In the section of components by rubric, the experimental group showed the following changes:

Table 2: Rubric components

Rubric Components	Experiment group (%)	Control group (%)	Change (%)
Source Verification	47	72	25
Argument and analysis	45	78	33
Visual analysis	48	78	30
Digital Ethics	52	77	25

There was a significant change in components in the control group. The source showed 47% in the control group, compared to 47% in the control group. The overall change rate is 25%. On the argument and analysis component, the

percentage increased from 45% to 78% in the previous experiment. The overall rate of change is 33%. It was shown in the experiment by visual analysis at 48% in the experimental group and 78% in the control group. This represents a 30% increase in value. There has been a significant 25% change in students' digital ethics.

Validity and reliability. It was measured through expert assessments with rubrics used and a questionnaire. These indicate that the measurement tools are sufficiently reliable and meaningful.

Additional analysis. Taking into account the pretest scores as a covariety, the result confirmed that the group effect was significant, that is, the effect size of the intervention was large.

Discussion: The results of this study show that summative assessment packages (project, portfolio, case study and special tests) aimed at building media literacy are effective, which significantly increase students' skills such as source verification, evidence-based analysis, evaluation of visual material, and adherence to digital ethics [10]. The high growth observed in the experimental group and the large group difference (posttest) compared to the control group support the effectiveness of skillful design of summative tasks and assessment through defined rubrics [11].

Analytic comments. Expected results can be attributed to the following factors: (1) project-based and portfolio-based assignments allowed students to independently examine and review information sources; (2) in addition to rubrics and traditional tests, case-study tasks encouraged critical thinking by applying them to real-life situations; (3) Ancor samples and evaluator training for teachers increased inter-evaluator compatibility [12].

Educational value. The results show that summative assessment can be used in school education not only as a final source of assessment, but as a means of building competencies and managing the learning process[13]. Integration of media literacy components with summative tasks in educational programs increases students' ability to evaluate information in real life and develops digital ethics [14].

Limits. The fact that the study was conducted in a quasi-experimental design and that the choice of schools is based on the principle of favorable selection limits external validity. Also, due to the short duration of the intervention, long-term effects have not yet been evaluated [16]. Controlling plagiarism and misuse of AI tools only in a declarative way can be a limitation [15].

Recommendations for future research. In the future, it is recommended to carry out large-scale replications using a broader nationwide sample, long-term follow-up (6-12 months), and other assessment tools (video examinations, real-life task monitoring). It is also necessary to develop special headings to evaluate AI-generated content.

CONCLUSIONS

Thus, the analysis shows that the introduction of media education in the school education system is an important strategic task. Media literacy should be seen as the main focus of general education, along with subjects such as mathematics or native language. The most effective integrated approach that combines the integration of the basics of media literacy into traditional sciences and the creation of independent study courses for in-depth study of the media. Media education programs are recommended to start from the elementary grades, gradually sophisticating and expanding them as they grow. This ensures continuity of learning and maximum impact of learning. This study confirmed the important role of summative assessment in the development of media literacy of schoolchildren. As a result of the experimental intervention (a summative package that summarizes projects, portfolios, case studies, and tests), students' basic media literacy skills such as source verification, evidence, and visual content analysis have increased significantly. Assessment of summative tasks through acceptable rubrics compared to the assessment group had a significant positive effect on learning outcomes, indicating the need to organize the assessment as a means of building competencies rather than as a final assessment.

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