

Hordieieva Anzhela*PhD in Pedagogy (Candidate of Pedagogical Sciences), Associate Professor at the Educational and Scientific Institute of Philology**Taras Shevchenko National University of Kyiv, Kyiv, Ukraine*E-mail: angor67@bigmir.netORCID ID: <https://orcid.org/0000-0002-8570-9099>**Interactive methods for developing critical thinking in psychology students**

The development of critical thinking forms the basis for students' analytical competence and professionally oriented preparation for future activity. It has become a central objective of modern higher education. This article presents an interactive methodology oriented towards psychology undergraduates that combines stepwise tasks, structured worksheets, reflective writing, and peer review. The approach deals with guided work with English-language research articles. It enables students to find, evaluate, and interpret high-quality academic sources. Emphasis is placed on the integration of active learning techniques, which have been shown to enhance comprehension, facilitate long-lasting learning outcomes, and encourage independent analysis.

The methodology progresses through several stages. Students learn to identify reliable academic texts when they search for a scholarly article at the starting point. They extract key structural elements, such as research objectives, methodology, and findings. Worksheets provide a systematic framework for analysis, while reflective tasks help students to monitor and evaluate their own learning processes. Peer-review exercises promote teamwork and collaboration, allowing students to refine arguments, strengthen reasoning, and receive constructive feedback. Synthesis of information across multiple articles and the presentation of findings through visual or oral formats are required at the final stage, when acquired knowledge is consolidated and communication skills are enhanced.

Experimental implementation with a group of undergraduate psychology students demonstrated positive outcomes, including improved critical thinking, greater confidence in handling scholarly sources, and higher motivation. The gap between theoretical knowledge and its application in academic work can efficiently be linked thanks to these structured interactive techniques. This methodology contributes to the broader discourse on evidence-based teaching practices, emphasizing the importance of student-centered learning and the integration of academic English into professionally oriented preparation (training?).

Keywords: *critical thinking, psychology students, interactive learning, worksheets, academic skills.*

Introduction. In the modern higher education system, one of the key objectives in preparing highly qualified specialists is the development of academic skills, particularly critical thinking. The effectiveness of the learning process largely depends on the implementation of active methods that stimulate better comprehension of the educational material and contribute to the development of students' analytical abilities.

Having made an overview of research in pedagogy, it is necessary to indicate that active learning is considered one of the most effective approaches for improving the quality of education. In particular, Prince (2004) points out that the use of interactive forms of learning, such as discussions, group work, and problem-based tasks, facilitates better material retention and develops students' ability to perform independent critical analysis (Prince, 2004). This approach is especially important in undergraduate education, where students are expected not only to acquire knowledge but also to systematize and evaluate it.

Reflective practices can be helpful when it is necessary to achieve the deeper development of critical thinking, allowing students to become aware of their own learning processes and improve them. Research by Yeh et al. (2022) demonstrates that reflective writing effectively enhances students' analytical skills, as well as fosters important conceptual and behavioral changes, such as self-respect, responsibility, and patience. These skills can provide a foundation for successful academic performance and future professionally oriented development. Recent research by Schürmann and Bodemer (2025) also highlights that regular reflective activities during collaborative learning enhance students' engagement and critical thinking, particularly in higher education settings.

Moreover, Kuh (2008) emphasizes the significance of high-impact educational practices, including interactive exercises, peer review, working with academic texts, and creating visual presentations. These practices are significant as they both increase student engagement in the learning process and help form a comprehensive set of competencies necessary for successful work in modern professional fields.

Therefore, the integration of active learning methods, including structured worksheets with step-by-step tasks, can provide a promising and well-founded approach to developing undergraduate students' academic skills across various disciplines, such as psychology in our research. The methodology proposed in this article aims to stimulate independent student work, encourage critical thinking, and develop skills for working with scholarly sources, meeting the requirements of modern higher education.

Research aim and objectives. The main aim of this study is to create and implement a methodology that helps psychology undergraduates develop critical thinking and analytical skills through structured work with English-language research articles. Identifying practical and interactive tools that make learning engaging, designing step-by-step tasks using worksheets, and exploring how this approach affects students' analytical abilities, motivation, and participation in academic activities are the focus of this research. By achieving these goals, the methodology supports students in not only finding and evaluating high-quality sources, but also in organizing information effectively and confidently presenting their findings.

Methodology. To accomplish our goals, our methodology focuses on the development of students' critical thinking, enhancing their ability to analyze scholarly texts, and building competence in using academic sources effectively in their own research projects, such as term papers or theses. As noted by Tyndall-Ford (2023), critical thinking is one of the central outcomes of higher education, but its development requires carefully designed tools and a structured learning process. The methodology relies on a series of interactive tasks that guide students through a structured analysis of research articles using worksheets.

Undergraduates are involved in their own research work when they prepare their theses. Our core objective is to enable students to locate, evaluate, and select high-quality academic sources for use in their own research. A summary table presents the key stages of our methodology for working with English-language research articles. It highlights the objectives of each stage, the practical benefits for students, and the specific activities or tools used to cultivate critical thinking and analytical skills. In this way, the table presents a clear outline for the learning process, helping students navigate scholarly literature from the initial search for sources to the presentation of their findings.

Having reviewed the key stages of the methodology in a structured format, we will now comment on each stage in detail. The following paragraphs describe the aims, practical benefits, and implementation strategies for the tasks at each stage, along with examples of worksheets and peer-review questions that support the development of critical thinking and analytical skills in psychology students.

Table 1

Key stages of the methodology for working with English-language research articles

Stage	Aim	Practical Benefit	Example Tasks
1. Searching for relevant literature (article hunt)	Learn to independently find academic articles relevant to the research topic	Develop the skill of searching for and selecting reliable sources for further academic use	Search for 5–10 articles using keywords, evaluate the credibility of journals and authors, use databases such as Google Scholar, Scopus, and Web of Science
2. Analysis and recording of information from 2 to 3 articles (literature review preparation)	Analyze several articles using a worksheet to identify ideas and data for one's own work	Learn to systematize information for a literature review and identify research gaps	Complete the worksheet: main ideas, methodology, results, gaps; create a short summary
3. Systematization and synthesis (synthesis and gap identification)	Summaries data, compare results and methodologies, highlight under-researched aspects	Provide a foundation for formulating a research problem and justifying the relevance of one's own study	Build a comparison table of articles: methods, results, key findings; identify contradictions and open questions
4. Presentation of literature review with constructive peer review (presentation and constructive peer review)	Prepare a presentation of the literature review, learn to give and receive constructive feedback	Develop communication skills, critical thinking, and the ability to justify the choice of sources	Present 2–3 articles (5–7 minutes), show the completed worksheet, discuss with peers, answer peer-review questions

The aim of the **first stage**, *Searching for Relevant Academic Literature (Article Hunt)*, is to help students learn how to independently locate scholarly articles that are related to their research topic, paying attention to the quality, credibility, and timeliness of the sources. As Halpern (2020) notes, the development of critical thinking is most effective when students are encouraged to actively evaluate the reliability and authority of the information they encounter. The choice of articles is extensive. A reliable article which also concerns one's research topic is important. Therefore, the first stage is crucial, as it lays the foundation for success later.

The practical benefit of this stage is that students are equipped with the essential skill of identifying and selecting reliable sources for further use in their own research papers. Before a classroom session, psychology students were given homework to search for 5–10 articles using specific keywords. During a classroom session, they were guided to critically assess each source by considering the authors' academic qualifications, the reputation of the journal, and the methodology used. Databases such as Google Scholar, Scopus, and Web of Science were actively applied, providing students with hands-on experience in navigating real academic resources. It is worth saying that this task not only familiarised students with the process of scholarly search but also fostered an awareness of how source quality influences the credibility of their own research.

The aim of the **second stage**, *Analysis and Recording of Information from 2 to 3 Articles (Literature Review Preparation)*, is to guide students in systematically examining several scholarly articles using worksheets in order to prepare a literature review. Students should be encouraged to identify which ideas, findings, or data may be relevant for their own research topics. We completely agree with Suwono et al. (2022), that integrating learning worksheets into the process of source analysis promotes better data organization and enhances the level of critical evaluation. Therefore, our students were provided with worksheets to systematically compare the chosen articles, analyze their methods and results, identify key findings, and highlight contradictions and open questions. Here is the worksheet designed for psychology students.

<p align="center">Article Comparison Worksheet <i>Select the articles relevant to your research topic.</i> <i>For each article, answer the questions below.</i> <i>Identify similarities, contradictions, and open questions.</i></p>		
Article 1	Article 2	Article 3
Citation (APA 7):	Citation (APA 7):	Citation (APA 7):
Methods:	Methods:	Methods:
Results:	Results:	Results:
Key Findings:	Key Findings:	Key Findings:
Contradictions / Differences:	Contradictions / Differences:	Contradictions / Differences:
Open Questions / Future Research:	Open Questions / Future Research:	Open Questions / Future Research:

The practical benefit of this stage lies in helping students develop the ability to structure information for a literature review and to identify gaps in existing research – an essential foundation for defining the novelty of their own work. In practice, students completed structured worksheets where they summarized each article's main ideas, methodology, results, etc. Through group discussions and guidance from the instructor, psychology students compared findings across articles, noted contradictions, and reflected on areas needing further exploration. This hands-on activity strengthened their analytical skills and prepared them for more advanced stages of research, including the synthesis of information and the construction of well-supported arguments in their own academic writing.

At the **third stage**, *Systematization and Synthesis (Synthesis and Gap Identification)*, students bring together the information they have collected from multiple articles, comparing the main results and methodologies to highlight areas that remain underexplored. According to Purdue OWL (Purdue University, 2023), which is completely supported by our investigation, this step is crucial for recognizing patterns, contradictions, and open questions in the literature.

From a practical perspective, this stage allowed our students to develop the foundation needed to formulate their own research problems and justify the relevance of their studies. During our sessions, students actively created comparison tables summarizing the methods, outcomes, and key conclusions of each article. It is necessary to mention that some students initially struggled to cope with the tasks, but group discussion and guidance helped them critically evaluate sources. This collaborative activity, as our experience shows, not only enhanced analytical skills but also encouraged students to articulate their own interpretations and questions, promoting deeper engagement with the material.

The **fourth stage** involves *Presenting the Literature Review with Constructive Peer Feedback*. The aim is to train students to present their findings confidently, using the worksheets completed in previous stages, and to develop the skill of giving and receiving constructive critique. Interactive strategies, including Socratic

questioning (Abrami et al., 2015), have proved highly effective for stimulating critical thinking and deeper understanding.

We applied this approach in our lessons, allowing students to practice presenting their literature reviews and providing constructive feedback to their peers. In practice, each student delivered a 5–7-minute presentation covering the analysis of 2–3 research articles via the worksheets. Presentations included key ideas and results from the selected articles, justification for selecting these particular studies, and identification of research gaps and opportunities for further investigation.

Our monitoring of the process indicated that during the peer review, classmates asked clarifying questions, challenged assumptions, and offered suggestions for improvement. Students who were initially hesitant to speak became more confident, defending their reasoning and reflecting on peer feedback. Many noted that considering their peers' perspectives helped them rethink their own analysis. It must be emphasized that providing students with practical experience in scholarly dialogue and collaborative evaluation at this stage reinforced not only academic skills but also interpersonal and communication abilities.

To facilitate structured feedback and ensure comprehensive peer evaluation, students were provided with a worksheet containing guiding questions. This worksheet encouraged them to assess clarity, relevance, completeness, strengths, weaknesses, and to propose improvements. An example of the peer review worksheet is presented below:

<p>Peer Review Worksheet</p> <p>Student Name: _____</p> <p>Presenter Name: _____</p> <p>Date: _____</p> <p>1. Is the research aim clear?</p> <p>■ _____</p> <p>2. Are the selected articles relevant to the topic?</p> <p>■ _____</p> <p>3. Is the rationale for selecting these articles well explained?</p> <p>■ _____</p> <p>4. Does the literature review cover the topic comprehensively?</p> <p>■ _____</p> <p>5. What are the strengths of the review?</p> <p>■ _____</p> <p>6. What weaknesses or gaps did you notice?</p> <p>■ _____</p> <p>7. Suggestions for improving the review:</p> <p>■ _____</p> <p>8. Questions for the presenter:</p> <p>_____</p> <p>_____</p>

After receiving the worksheets, students used them to structure their peer feedback and make notes during the presentations. Observations during the process revealed that even the more reserved students gradually became more confident in sharing their thoughts and explaining their reasoning. Many students said that hearing their peers' perspectives helped them rethink their own evaluations and notice details they had initially missed. It is also worth mentioning that the worksheets kept everyone focused, encouraged thoughtful questions, and made the feedback process more constructive. This, in turn, enhanced their motivation.

Results. During the experimental implementation of the proposed methodology, 30 undergraduate psychology students participated in the structured analysis of research articles using worksheets, followed by presentations and peer review sessions.

Analysis of the completed worksheets revealed that most students were able to accurately identify key elements of the articles, including objectives, methods, and main findings, with over 85% correct responses.

Many students also demonstrated the ability to critically assess the strengths and limitations of the studies, reflecting a noticeable improvement in their analytical thinking skills.

During presentations and discussions, students actively defended their choice of articles for the literature review and asked insightful questions of their peers, which contributed to deeper understanding and engagement with the material. Observations during these sessions highlighted that students who were initially hesitant to speak gradually became more confident, articulating their reasoning clearly and reflecting thoughtfully on peer feedback. Pre- and post-implementation surveys indicated an increase in students' self-confidence when working with scholarly texts and a greater motivation for independent learning.

Conclusions. The proposed methodology of interactive analysis of research articles using structured worksheets has proved highly effective in fostering critical thinking among psychology students. The step-by-step work of locating, evaluating, and presenting scholarly sources has also contributed to the development of systematic information processing, analytical thinking, and well-reasoned communication skills.

Incorporating constructive peer review during presentations has strengthened academic interaction among students, promoted reflective practice, and helped them develop the ability to give and receive feedback. This process also nurtured a sense of responsibility for their own learning and an appreciation for collaborative work. It has enhanced psychology students' motivation, improved their engagement with the learning material, and strengthened their ability to apply theoretical knowledge in practical tasks.

The findings support the inclusion of similar interactive methods in psychology undergraduate programs to enhance the quality of academic training. It is important to emphasize that this methodology can also be adapted for other humanities and social sciences disciplines where analytical and communication competencies are vital.

Future research could explore scaling this methodology to other disciplines and student groups, as well as developing additional instruments for quantitative and qualitative assessment of advanced critical thinking skills. Observations during this study suggest that when students actively engage with structured tasks and peer interactions, their confidence, reflective skills, and collaborative abilities grow significantly, highlighting the value of hands-on, interactive learning experiences.

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Інтерактивні методи розвитку критичного мислення у студентів-психологів**Гордєєва Анжела Йосипівна***кандидат психологічних наук, доцент кафедри іноземних мов факультетів психології та соціології
Київського національного університету імені Тараса Шевченка, Київ, Україна*

Розвиток критичного мислення є основою аналітичних навичок і професійної готовності студентів, а також залишається ключовою метою сучасної вищої освіти. У статті представлено інтерактивну методику, орієнтовану на студентів-психологів, яка поєднує поетапні завдання, структуровані робочі аркуші, рефлексивне письмо та взаємне рецензування.

Наш підхід передбачає керувану роботу з англійськими науковими статтями, що дає змогу студентам-психологам знаходити, оцінювати та інтерпретувати високоякісні академічні джерела з фаху. Особлива увага приділяється інтеграції активних методів навчання, які сприяють глибшому розумінню матеріалу, забезпечують тривале засвоєння знань та стимулюють самостійний аналіз.

Методика реалізується поетапно. На початковому етапі студенти навчаються визначати надійні академічні тексти під час пошуку наукової статті. Вони виділяють ключові структурні елементи, такі як цілі дослідження, методологія та результати. Робочі аркуші надають систематичну основу для аналізу, а рефлексивні завдання допомагають студентам оцінювати власний процес навчання. Вправи зі взаємного рецензування сприяють командній роботі та співпраці, даючи змогу удосконалювати аргументи, зміцнювати логіку мислення та отримувати конструктивний зворотний зв'язок. На фінальному етапі студенти синтезують інформацію з кількох статей і презентують свої висновки усно або візуально, закріплюючи набуті знання та розвиваючи комунікативні навички.

Експериментальне застосування методики серед студентів-психологів продемонструвало позитивні результати, як-от покращення критичного мислення, підвищення впевненості у роботі з науковими джерелами та зростання мотивації. Завдяки структурованому інтерактивному підходу теоретичні знання ефективно поєднуються з їх практичним застосуванням. Методика робить значущий внесок у розвиток навчання на основі доказів, підкреслюючи важливість орієнтованого на студента підходу та інтеграції академічної англійської у професійну підготовку.

Ключові слова: критичне мислення, студенти-психологи, інтерактивне навчання, робочі аркуші, академічні навички



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