Effective Educational Ukrainian Practices of the Formation of Media Literacy

Yu. Rudenko[*], S. Ahadzhanova[*], K. Ahadzhanov-Honsales[*],
O. Bieliaieva[**], A. Korovai[**] and O. Semenikhina[**]

[*] Sumy National Agrarian University, Sumy, Ukraine
[**] Sumy State Pedagogical University named after A. S. Makarenko, Sumy, Ukraine
yango641@ukr.net, svitlana.ahadzhanova@snau.edu.ua, karen.ahadzhanov-honsales@snau.edu.ua,
Lenyse4ka-85@ukr.net, a.korovai@fizmatsspu.sumy.ua, e.semenikhina@fizmatsspu.sumy.ua

Abstract - **The article touches on the problem of forming the younger generation's media literacy. It is shown that in order to solve it, it is necessary to: develop the critical thinking of young people regarding the consumption, verification, and evaluation of media products; to form the ability to resist manipulation, destructive influences, and hostile propaganda; to develop a culture of interaction in the Internet space and the ability to protect one's own information space.**

A workshop developed by a team of authors and the methodology of the practicum are described: the logical sequence of classes (motivation, encouragement to study; teaching practical techniques; checking the results; reflection); forms and methods of learning (quizzes, competitions, training, master classes). It is shown that the following are important for the successful implementation of the workshop: interactivity, game methods, learning techniques for emotional relief, learning by example, and real media products.

The effectiveness of the workshop has been confirmed. The dynamics of achievements have shown significant positive changes in the ability to distinguish facts from judgments and to identify inaccurate information. The number of students who realized the responsibility for spreading unverified information and the importance of creating an adequate own information space also increased.

Keywords - media literacy; Info media literacy; development of critical thinking; media products; professional training; information propaganda; destructive influence.

I. INTRODUCTION

Recently, there is an increased interest in media literacy in the world. As soon as society realized the scale of the impact of information technologies on the psyche, behavior, preferences, and values of citizens, the task of forming media literacy of the population to prevent destructive political, social, and other influences became actual. In the world community, the problem of the formation of media literacy is solved in different ways. Some countries interpret media literacy as the ability to read, interpret, and create informative content and therefore consider the development of critical thinking important. Others believe that media literacy is not only the development of critical thinking but also the formation of behavioral and psychological skills [1].

The global experience of teaching media literacy is of considerable interest. Theoretical aspects of media literacy were considered by N. Prykhodkina [2]. She describes the basic theories of media education: semiotic approach, ideological approach, media as popular arts approach, practical approach, uses and gratifications approach, protectionist approach, ethic approach, critical thinking approach, social and cultural approach, and media-didactic approach. Jin Yang [3] guides by the constructivist or social-cultural approach to learning and knowledge development that knowledge is learned best from participating in discussions and from contributing to the knowledge-generating. His study proposes and discusses the thesis that social media have the potential to facilitate dialogic learning and thus assist the accomplishment of educational goals and objectives. The guide [4] stresses teaching inductively and beginning whenever possible with students' direct experiences with the media. The basic method of media studies is that of a "spiral curriculum", a concept developed by educator Jerome Bruner [5] raise the issue of youth media literacy from a political point of view in retrospect and notes that its relevance decreases over time, which is unacceptable.

The practical aspect of the problem and the development of media literacy among young people were studied in [6]

In the paper [7] authors touch upon the problem of developing a tool that can evaluate the level of media literacy in terms of a person's ability to understand, analyze and evaluate media messages. M.Hameleers [8] analyses media literacy at point-view misinformation and accents that evidence-based misinformation is seen as more accurate than fact-free misinformation, and the combination of news media literacy interventions and fact-checkers is most effective in lowering issue agreement and perceived accuracy of misinformation across countries. In the course of the German language practical classes and in the optional course the following media education methods P.Pokrovska [9] uses the media-biographic method, the method of narrative analysis of media text, and L. Kolberg's method of moral dilemma and proves its effectiveness. I. Waterman [10] presents psychological

and pedagogical features of media literacy. The methodology of teaching media literacy in Ukraine is highlighted in scientific works [11; 12].

In Ukraine, due to Russian military aggression, the problem of the formation of media literacy of the population has become significantly aggravated, since the war is accompanied by information attacks of enemy propaganda, a huge number of fakes, and aggressive, offensive media reports. Especially vulnerable are young people who are the most active users of information content, and at the same time are subject to the most destructive psychological and emotional influences due to the lack of life experience and age-related psychological characteristics [6].

In the conditions of the multiplicity of existing information threats, we consider it expedient to develop the following components of media literacy among young people:

1) critical thinking (be critical of media products, have practical skills to verify them, the ability to distinguish facts from judgments, detect manipulative content, fakes, propaganda);

2) a responsible attitude to the creation, distribution, and consumption of information in the Internet space;

3) the ability to counteract destructive influences, psychological manipulation, propaganda, and disinformation;

4) the ability to ignore "informational" noise.

In the conditions of an educational institution, such development is possible if students pass a special workshop on media literacy, which was developed by individual authors of this paper [1; 13-15]. *The aim* of the paper is to develop and implement effective educational Ukrainian practices of the formation of media literacy. Research objectives: to develop the content and methodology of the workshop on media literacy; to check the effectiveness of the practicum in baccalaureate.

II. METHODOLOGY FOR WORKSHOP ON MEDIA LITERACY

The media literacy workshop is a cycle of practical classes that are organized logically and consistently and consists of the following stages: creating interest and motivation for learning; practice training; verification of results; reflection.
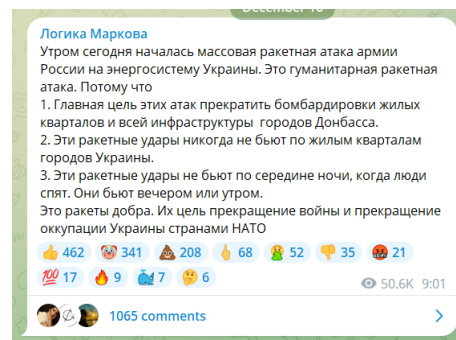
In the first lesson, the teacher needs to substantiate the role of media literacy, and its significance in war conditions and identify the real level of students' media literacy.

The introductory lesson "Is media literacy important?" was organized to justify the importance of media literacy, and motivate students to study. It is held in the form of a discussion in which media reports are discussed. Students are shown several sample messages and asked to answer the following questions:

– What is the truth value of this message?

– What techniques are used to attract attention?

– Can people interpret this message in different ways?

– What points of view and values are presented or omitted from this message?

– What answers to these questions will be given by a person who has media literacy skills, and a person who considers them unnecessary?

An example of a media message is shown in Fig. 1. The message refers to "humanitarian rocket fire that does not hit civilian targets and contributes to a ceasefire at the front" (Figure 1a). At the same time, real events and the results of rocket attacks testify to the death of 13 people and the destroyed houses in Kirovograd (Figure 1b).

Figure 1. Distorted and real information about the missile attack

The result of the discussion should be the conclusion: the opinions of a media-literate person and a person who does not yet possess media literacy skills will be different. The habit of checking information and being critical of the content will make it possible to assert that the message was created to justify massive missile strikes on Ukraine, which is beneficial to the Russian occupiers [14]. Basic human values are hushed up and replaced. And although this message justifies unacceptable cruelty, it finds the support of a large number of people, as evidenced by the likes under the post.

Similar examples with false information should show the role of media literacy for a modern person. Students must understand the threats of information wars and the need for critical thinking. Students should have the desire to develop critical thinking and practical skills for checking information for accuracy

The purpose of the lesson "How media literate are you?" is to identify students' media literacy levels. The lesson includes interactive exercises (tests, quizzes, games) that allow students to identify their personal media literacy level. The lesson may include:

Test "What do you know about media literacy" to identify general knowledge about media literacy;

The quiz "Fact or Opinion?" reveals the ability to distinguish between facts and judgments, the level of critical thinking;

Game-task "True or False?" determines the ability of students to check media reports for accuracy;

The exercise "News from my feed" determines the level of responsibility in the consumption and distribution of media in social networks;

Exercise "How attentive are you?" (students are offered instructions in which important information is present among the information noise). The attentiveness when reading the message, and the student's ability to identify manipulations and fakes are checked.

At the end of the lesson, the results are announced. As a rule, they encourage students to increase their level of media literacy in the following lessons.

The "*Fact Check*" lesson is designed to develop the skills to identify false information presented in the form of text, photos, and videos. It is a master class, where methods for identifying false information are demonstrated using examples of various content [15].

An example of the task is "Refutation of a photo fake." The teacher focuses on manipulations in the title, teaches to check the date of publication and photo for authenticity, to find primary sources. Demonstrates how to use Google Lens to find similar photos and check when they were posted. Figure 2 shows a montage of photos from 2014 of Ukrainians honoring those who died on Maidan and a manipulative caption that Ukrainians "kneel before Biden." Checking the publication date with Google Lens disproves the title.
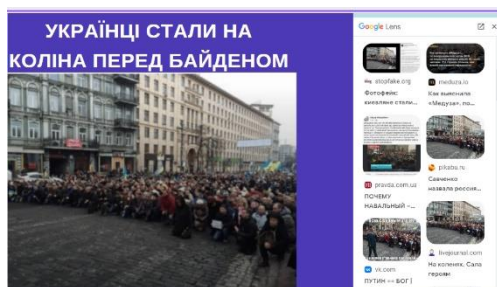

Figure 2.   Photomontage as an example of photo-fake

Conclusion to the lesson: it is important to acquire the skills of a media literate person:

– to distinguish manipulation elements in headers;

– to read full information, check links to primary sources and their reputation;

– to analyze the authority and opinions of experts (general phrases or specific facts, judgments, or emotional statements)

– to be able to use programs that allow you to identify a photo and the date of publication (Google Lens service, Tineye browser extension), identify the place of an event (Google Maps, Google Street View services), verify videos (YouTube DataViewer, InVID).

The "*Information Evening*" class follows the goal of forming the skill of a conscious and responsible process of information consumption.

During the lesson, a situation observed in every student's everyday life is recreated. For 2-3 minutes, it is suggested to view your feed in the social network, set favorites, and share information. After a certain time, students' actions are discussed through answers to the questions: What events are covered in the tape? Do you get the impression that you are surrounded only by like-minded people?

In most cases, students answer these questions in the affirmative, which leads to the conclusion that the student is in an "information bubble." The appearance of the information bubble is explained (the operation of algorithms that shape the information space of the user depending on his requests, comments, preferences, and actions with the distribution and removal of the content). The result of such algorithms is a formed news feed that corresponds to the user's worldview and preferences, which may be biased. The negative consequences of falling into an information bubble are discussed: lack of balance of opinions, confidence in one's rightness, omission of really important messages, and falling under the influence of manipulation.

Particular attention is paid to the dissemination of information. It is recommended to review the content and check it in other sources. The importance of disseminating information consciously, not under the pressure of emotions, as well as in compliance with copyright, and ethical and legal norms, is emphasized.

Recommendations are given on how to avoid the information bubble:

–   use the browser in incognito mode;

–   periodically delete search history and cookies;

–   consciously find other points of view;

–   read news directly from news sites, and not through links in social networks;

–   distinguish and avoid "junk pages" (a distinctive feature of "junk pages" is that they do not have contact details and information about the editorial staff, they write about absolutely everything, and the texts are full of emotions);

–   do not participate in tests, games, or flash mobs (most often they are used not only for advertising but also

for fraudulent schemes and collecting personalized information);

– do not interfere in discussions and disputes on unknown sites, with strangers, or on unknown topics (their goal is to provoke people, and raise the rating of a particular post).

Conclusion to the lesson: the consumption of information by a media-literate person is a conscious, balanced, and responsible process. The presence of critical thinking and the ability to control one's behavior in the information space allows one to avoid psychological manipulation and the destructive effects of propaganda.

Lesson "Emotional pause" on how to learn to get rid of excessive emotionality when consuming negative media messages. It is explained to students that any message pursues certain goals. To achieve these goals, the authors are trying to influence the emotions of the consumer, to encourage reckless impulsive actions.

At the lesson, students are offered a message of an overly emotional nature. After reading the message, students should mark this emotion on the wheel of emotions

(an adaptive model of identification and strength of emotions developed by American psychologist) [16]

After that, the teacher distracts students to a calm psychological topic (music, humor, nature) for 20-30 seconds and again asks them to indicate the strength of the emotion on the wheel of emotions. As a rule, the results have the following form (the asterisk of emotions has shifted to the left on the scale) (Fig. 3).

As the images show, the first emotion "Anger" is marked with an asterisk almost in the center of the wheel, and after an emotional pause, the mark moved to the edge of the wheel.

Both labeled drawings are shown on the screen so that the training participants can see for themselves the effectiveness of the "emotional pause" technique, in reducing the strength of the emotion or changing the focus of attention. The mechanism of information destructive attacks from the standpoint of the human psyche and effective ways to master oneself are explained.
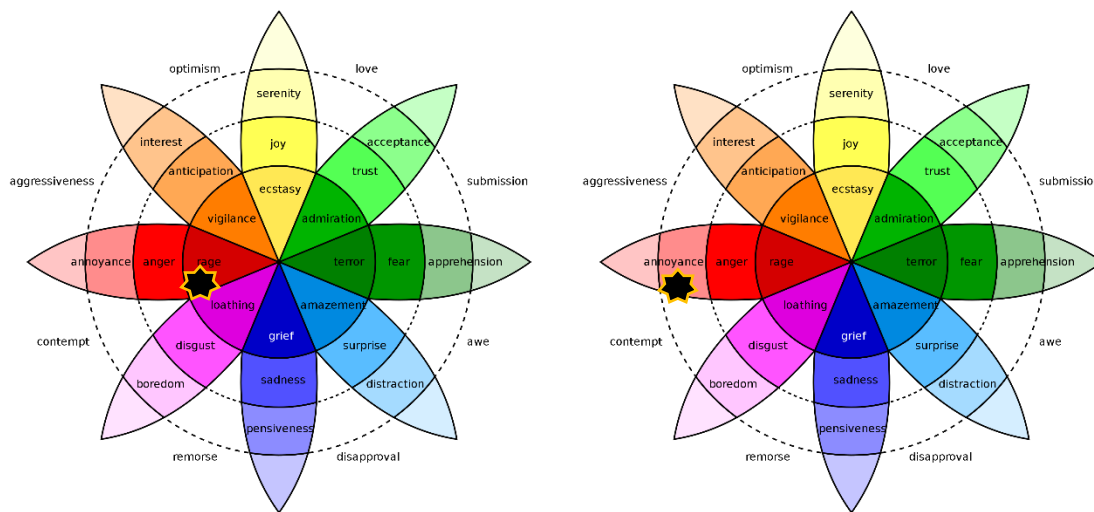

Figure 3.   Identification of emotion and its strength before (on the left) and after (on the right) reading media

Conclusion: it is important to develop the ability to consume information in a rational and balanced manner, to be able to take emotional pauses, and to objectively and critically evaluate content.

The "Reflection" class is designed to test knowledge and consolidate the skills acquired during the practicum.

Students are invited to take the test again and write a short review about their impressions of the completed practicum. Feedback should contain detailed answers to the following questions:

Do you consider "media literacy" an important element of the education of a modern person?

Do you know how to verify media information?

Is it important to be conscious and responsible about the dissemination of information in social networks?

Was the internship useful for you?

The described workshop is dynamic and, if necessary, some classes, for example, "Fact-checking", can be increased in volume.

III.   DESCRIPTION OF THE PEDAGOGICAL EXPERIMENT AND ITS RESULTS

To check the effectiveness of the workshop, a pedagogical experiment was conducted, which lasted throughout October-November 2022. 64 students (1st year) of Sumy National Agrarian University and Sumy State Pedagogical University participated in the experiment. Four tools for checking educational achievements were used:

1) test "What do you know about media literacy"

2) quiz "Fact or opinion?"

3) task "Reliable-unreliable information"

4) exercise "How attentive are you?"

The tools are the author's development of Yu. Rudenko.

The results at the beginning of the workshop and after its completion are presented in Table 1.

TABLE I.   RESULTS OF THE PEDAGOGICAL EXPERIMENT

Task Type	Verification	Number of questions	Number of correct answers (average)		Dynamics, number of questions
			Before the workshop	After the workshop	
test	understanding the essence, components, and requirements of media literacy	7	4	6	2
quiz	The ability to distinguish judgments and facts	20	10	18	8
task	Skills to analyze information (identify primary sources, check content and photos)	5	2	4	2
exercise	Ability to separate information noise		20	54	34

Interpretation of results. The "What do you know about media literacy" test and the "True-false information" exercise revealed a positive performance trend: on average, the number of correct answers increased by 2 for both tools. During the Fact or Judgment quiz, the dynamic was +8 correct answers. 20 students before the lesson and 54 after it correctly completed the exercise to identify attentiveness when reading instructions.

Thus, the test results indicate a low level of understanding of the essence of media literacy, an inability to distinguish between facts and judgments, as well as ignorance of methods for checking information for reliability at the beginning of the experiment and a significant improvement in knowledge and skills at the end of the experiment. Thanks to the last tool, we state that attention, the ability to concentrate, and logical thinking have increased.

We were interested in student reflection. Therefore, at the beginning and the end of the workshop, it was proposed to write detailed answers to questions about the quality of the workshop.

Analysis of responses revealed a positive result. For example, to the question "Do you consider "media literacy" an important element in the education of a modern person?" The number of "Yes" answers doubled. 48 students believe that thanks to the workshop they learned to check media information for authenticity. Before the practicum, 18 students were able to check it (the question "Can you check media information for authenticity?"). 56 students (62.5% more than at the beginning of the experiment) realized their responsibility for the dissemination of information (the question "Is it important to consciously and responsibly treat the dissemination of information in social networks?").

All 64 students found the practice useful. Among the comments were: "Thanks to the workshop, I realized the responsibility for creating and disseminating media information", "I really liked the workshop, now I feel like a media literate person", "media literacy is very important, especially in times of war", "I realized how important it is to think critically, not to succumb to emotions," etc.

IV.   CONCLUSION

Thus, the media of all formats are a powerful factor in both positive and destructive impacts on the psyche and behavior of young people. Therefore, it is important to develop the media literacy of students. In modern conditions, media literacy should include the ability to think critically, the availability of practical skills for checking media messages; a responsible attitude to the creation, distribution, and consumption of information in the Internet space; the ability to counteract destructive influences, psychological manipulation, propaganda, disinformation; cybersecurity skills.

In the conditions of an educational institution, such development is possible if students undergo a special workshop on media literacy. For the workshop, the logical sequence of lessons is important (interest, motivation, practical skills; checking student progress; reflection); use of interactive and game methods (quizzes, competitions, training, master classes); learning from real examples, and real media messages of all kinds.

According to the results of the pedagogical experiment, the improvement of critical media consumption skills was recorded, and the skills to distinguish facts from judgments, and to identify fakes and propaganda were formed. The workshop made it possible to study the techniques of emotional unloading and methods of counteracting psychological manipulation. There are grounds to assert that students have formed a responsible attitude to creating and disseminating information in the Internet space.

Conducting such a workshop requires a teacher to have a high level of media literacy, developed communication skills, and skills in using various digital interactive teaching methods. Therefore, in the perspective of further research, profile training of teachers is planned.

REFERENCES

[1] Yu. Rudenko, and V. Ovcharenko, "Analysis of abroad experience of developing youth media literacy," Osvita. Innovatyka. Praktyka – Education. Innovation. Practice, Vol. 10, No 6, 2022, pp. 45-51. https://doi.org/10.31110/2616-650X-vol10i6-006.

[2] N. O. Prykhodkina, "Osnovni teoretychni kontseptsii mediaosvity [Basic theoretical concepts of media education]," Pedahohika vyshchoi ta serednoi shkoly – Pedagogy of the high and secondary school, Issue 3, 2016. pp. 264-277. http://nbuv.gov.ua/UJRN/PVSSh_2016_49_28.

[3] Jin Yang, "Social Media's Potential to Facilitate Dialogic Learning", 2014. https://doi.org/10.4018/978-1-4666-6046-5.ch068.

[4] B. Duncan, "Canada Offers Ten Classroom Approaches to Media Literacy," https://www.medialit.org/reading-room/canada-offers-ten-classroom-approaches-media-literacy.

[5] R. Wallis, and D. Buckingham, "Media literacy: the UK's undead cultural policy," International Journal of Cultural Policy, 2016. https://www.tandfonline.com/doi/full/10.1080/10286632.2016.1229314.

[6] Yu. Rudenko, N. Dehtiarova, S. Petrenko, and V. Horokhova, "Development of media literacy of the young generation: a practical aspect of the problems," Physical and mathematical education, vol. 37, No 5, 2022, pp. 56–63. https://doi.org/10.31110/2413-1571-2022-037-5-008.

[7] A. Arooj, G. Saima, S. Noshina, H. Mian, and A. Muhammad, "Revisiting media literacy measurement: Development and validation of 3-factor media literacy scale," Journal of Computer Assisted Learning, vol. 38, 2022. https://doi.org/10.1111/jcal.12682.

[8] M. Hameleers, "Separating truth from lies: comparing the effects of news media literacy interventions and fact-checkers in response to political misinformation in the US and Netherlands," Information, Communication & Society, vol. 25, 2020, pp. 1-17. https://doi.org/10.1080/1369118X.2020.1764603.

[9] P. L. Pokrovska, "Formation of media competence of students of humanitarian faculties during the study of specialized disciplines," Information Technologies and Learning Tools, vol. 71(3), 2019, pp. 215–226. https://doi.org/10.33407/itlt.v71i3.2558.

[10] I.M. Watermann, "Pflege 4.0. Auswirkung auf die praktische Berufsausbildung von Pflegekräften," Hausarbeit (Hauptseminar) – Pädagogik – Berufserziehung, Berufsbildung, Weiterbildung – Arbeiten publizieren: Bachelorarbeit, Masterarbeit, Hausarbeit oder Dissertation, München: GRIN Verlag, 2017. https://www.grin.com/document/383437.

[11] D. Verbytskyi, Yu. Sikora, and O. Usata, "Mediahramotnist yak odyn zi skladnykiv protsesu pidhotovky suchasnoho pedahoha profesiinoho navchannia [Media literacy as one of the components of the training process of a modern professional teacher]," Naukovyi visnyk Uzhhorodskoho universytetu. Seriia:«Pedahohika. Sotsialna robota» – Scientific Bulletin of Uzhhorod University. Series: "Pedagogy. Social work", №1 (48), 2021, pp. 69-72.

[12] O.O. Rekun, "Mediahramotnist u systemi vyshchoi osvity [Media literacy in the system of higher education]," Visnyk Natsionalnoho universytetu «Chernihivskyi kolehium» imeni T. H. Shevchenka – Bulletin of the Chernihiv Collegium National University named after T. G. Shevchenko, Vol. 8 (164), 2020, pp. 41-44. https://doi.org/10.5281/zenodo.3905534.

[13] O. Semenog, O. Semenikhina, P. Oleshko, R. Prima, O. Varava, and R. Pykaliuk, "Formation of Media Educational Skills of a Future Teacher in the Professional Training," Revista Românească pentru Educaţie Multidimensională, Volume 12, Issue 3, 2020, pp. 219-245. https://doi.org/10.18662/rrem/12.3/319.

[14] Yu. Rudenko, N. Dehtiarova, and N. Tutova, "Practical aspects of mind-shaping the development of critical health," Current Science Nutrition, No 3(3), 2022, https://doi.org/10.52058/2786-6300-2022-3(3)-316-327.

[15] M. Drushlyak, O. Semenog, N. Hrona, N. Ponomarenko, and O. Semenikhina, "Typology of internet resources for the development of youth's Infomedia literacy," Information Technologies and Learning Tools, vol. 88, No 2, 2022, pp. 1-22. https://doi.org/10.33407/itlt.v88i2.4786.

[16] Plutchik's Wheel of Emotions: Exploring the Emotion Wheel. Retrieved from: https://www.6seconds.org/2022/03.