Social Project of Media and Information Literacy Knowledge Improvement Among Academic and School Librarians in Kazakhstan

Yelizaveta Kamilova[(✉)] [iD] and Zhuldyz Orazymbetova [iD]

Reference Office, Nazarbayev University, Astana, Kazakhstan
{yelizaveta.kamilova,zhuldyz.orazymbetova}@nu.edu.kz

Abstract. This paper reports the results of the "SauattyKeleshek" social project aimed to improve Media and Information Literacy (MIL) knowledge, skills, and abilities among academic and school librarians in Kazakhstan. The project included educational trainings developed and introduced to the target group consisting of 391 participants, both online and onsite. The objectives of this research paper are to identify the MIL competencies participants posses and ways to improve their MIL knowledge. In this study, researchers will answer the following questions: what are the information needs of the target audience; how does MIL training improve the MIL knowledge of participants; how does an MIL training program content respond to the information needs of the learners? Specifically, researchers applied a qualitative research method by analysing the results of primary data from an online survey conducted before the training, and the MIL training program was developed on the basis of the preliminary survey analysis.

Keywords: Kazakhstan · media and information literacy · school librarian · social project · MIL

1 Introduction

The Republic of Kazakhstan, located in Central Asia, gained its independence from the Soviet Union in 1991. It's current population is about nineteen million people. A national model of education has been formed in the country, which aims at improving the quality of human resources training, and conforming to the needs of the individual, society and the state. Considering the current era of the digital economy, media and information literacy of the population is one of the key factors in the development of human capital to ensure highly efficient innovative and sustainable growth of the Republic of Kazakhstan.

The availability of various initiatives and programs on developing the MIL competencies in many countries does not affect the overall situation in Kazakhstan. Due to a lack of standards introduced at the state level, existing materials and projects cannot be implemented thoroughly. Also, available programs presume omissions and gaps and do not respond to the current realities and the level of the citizens. The deficit of the materials in Kazakh language aggravates the development of MIL, and creates a barrier

to obtaining the necessary information for local teachers, librarians and school children in Kazakhstan.

A practice of transition to various models of distance learning during the COVID-19 pandemic, has shown that teachers should have essential skills, attitudes, and competencies related to media and information literacy in education. Furthermore, considering the current functions and responsibilities of school librarians, these above abilities are applied to library staff as well. Teachers and librarians have to be able to manage data flows, find, use, and disseminate reliable information. They must utilise these sets of skills to effortlessly navigate the online space and establish various kinds of communication and interaction, select and organise digital content, identify necessary online materials, understand copyright issues, and apply strategies of critical thinking. Moreover, schoolteachers and librarians are expected to develop all these skills and abilities for their students through a variety of online educational activities.

The Nazarbayev University librarians developed and implemented the SauattyKeleşek [sauattykeleshek] project aimed at developing media and information literacy skills of academic and secondary school librarians through online training in Kazakhstan. The project highlights the role of librarians as information professionals around the world, including Kazakhstan. Today, librarians are important agents in developing the key literacies of the young generation. They recommend and guide users in searching for valuable and reliable sources of information.

This paper presents the preliminary and final surveys results aimed at identifying project participants' MIL competencies. Also, researchers analyse the project program content in order to improve MIL knowledge. Authors of this study will present findings to the following research questions:

- What are the information needs of the target audience?
- How does MIL training improve the MIL knowledge of participants?
- How does MIL training program content respond to the information needs of the learners?

The project involved partners such as governmental and state agencies, national leading organisations in the professional development of pedagogical staff in Kazakhstan, including the librarians, and also secondary schools.

2 Review of Literature

The critical role of media and information literacy has been historically proven by many authors and studies when it comes to the vast amount of information available from different channels with uncertain quality [1]. As a result, the competencies of MIL have been discussed for more than three decades in Europe and other countries to understand its definitions, policies and initiatives [2]. UNESCO introduced the media and information literacy as a "composite concept, unifying information literacy, media literacy, digital competencies as well as considering the right to freedom of expression, access to information through ICTs, and intercultural dialogue" [3, p.7]. One of the selected definitions of the UNESCO Guideline adapted from Media Development Indicators: A framework for assessing media development states: "MIL is concerned with the ability to access the

media [new and old] and other information sources, to understand and evaluate critically their contents and functions and to critically used them to create communications in a variety of contexts including teaching and learning, self-expression, creativity and civic participation." [3, p. 180] and another definition was developed during the Media and Information Literacy for Knowledge Societies International Conference which states: "MIL is defined as a combination of knowledge, attitudes, skills, and practices required to access, analyse, evaluate, use, produce, and communicate information and knowledge in creative, legal and ethical ways that respect human rights." [4, p. 2].

At the same time, Thoman & Jolls highlight the increasing importance of media and information literacy skills, as the current generation is exposed to more information in one day than our great-grandparents in a year [5]. Especially nowadays, children and teenagers reach eight hours of screen activity, including television, smartphones and other gadgets [6] and most teenagers admit they utilise media on a daily basis particularly social networks, blogs and video streaming channels [7]. As a result, children and teenagers face vast amounts of unreliable information online and regularly experience difficulties distinguishing fake information [8].

In addition, as Gretter and Yadav (2016) noted, it is now crucial to understand the tendency of becoming knowledge creators rather than being passive consumers of information [7]. Bernier (2020) also stated that the ability of teenagers to utilise, absorb and share the media is one of the key competencies of the 21st century [9].

Considering misinformation growth there is an urgent need for integration of MIL competencies into the educational programs. However there is no clear understanding of how MIL pedagogies and training might be provided [10–12]. De Paor & Heravi [13] also affirm the importance of library efforts and initiatives to stop the spread of fake news and educate communities on MIL competencies. Various studies also confirm that librarians are the driving force supporting and organizing MIL activities to develop the MIL competencies of students and children [14–16].

Thus authors consider librarians one of the important agents to integrate the MIL competencies to the schools and academic institutions.

3   Methodology

This research paper explores the MIL competencies of project participants and ways to improve their MIL knowledge. The researchers adapted the qualitative method by (a) conducting two language (Kazakh and Russian) online surveys before and after the MIL training. The Qualtrics platform was utilised for collecting data. The questionnaire was processed through and approved by the Institutional Research Ethics Committee of Nazarbayev University. The data collection was started in December 2021 till January 2022. The survey contained questions with options, scaling and open ended queries.

The formal letter was sent to the Republican Scientific Pedagogical Library of the Ministry of Education of the Republic of Kazakhstan, the supervising institution of all Kazakhstani high and secondary school libraries, with the request to recruit participants. The survey was further spread to the target group including high and secondary school librarians. Overall 472 librarians registered for the MIL training, as well as 214 of them responded to the survey, and 391 participants enrolled in the MIL program. The MIL training lasted for four months, in between February and May 2022.

In addition, (b) the content analysis method has been used to study the MIL program for evidence of providing required knowledge on MIL competencies based on deficiencies identified during the preliminary survey.

4   Findings and Discussion

4.1   Preliminary Survey Results

The preliminary survey results revealed the librarians' basic knowledge on MIL before participating in the training program. Furthermore, researchers identified the vulnerable information needs of the target audience. The results of the questionnaire served as a starting point for the development of the MIL training program to meet the librarians' needs.

The first question of the survey sought to find out the familiarity of the respondents with the term "media and information literacy", and almost 90% (192) of respondents pointed out "Yes" they know. However, the second question, which asked for a definition of MIL showed that only about 30% (64) of respondents properly understood what MIL is. The next question of the survey was to identify if the respondents provide any information literacy sessions, and only 20% (42) of the librarians claimed that they do. Additionally, respondents were asked to list the sessions, and as a result barely 25% (53) of the provided sessions from the list were on information literacy. Librarians indicated different types of activities and perceived them as information literacy sessions (Fig. 1).
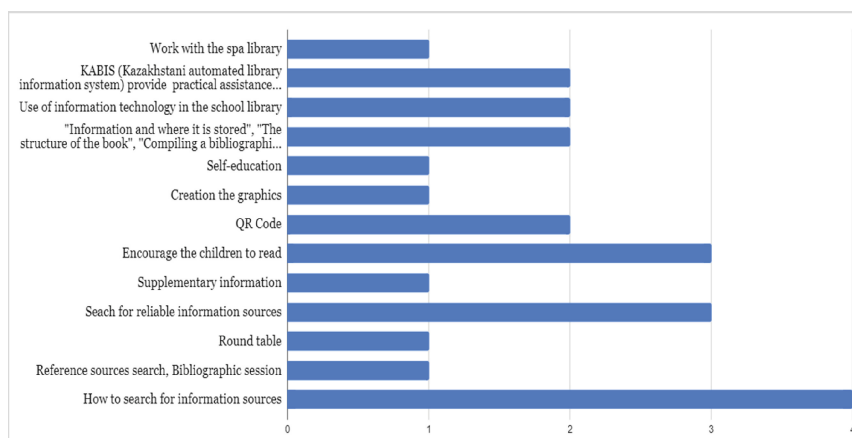

Fig. 1. Librarians' response on library activities

According to the preliminary survey responses, more than 80% of librarians support the inclusion of media and information literacy classes in the educational process as they believe it will improve student achievements. Moreover, about 40% (85) of the librarians suppose they are capable of teaching media and information literacy skills to schoolchildren, teachers, and parents.

One of the questions asked respondents to indicate the sources they trust, and it turned out that most librarians trust governmental periodicals and broadcasts. Nearly 20% (42) of the participants underline that they do not trust any sources fully; in contrary, less than 10% (21) of the librarians rely on any kind of sources, which is an alarming fact. According to the next question response, more than 80% (171) of the librarians use Internet as the main source of the information (Fig. 2).
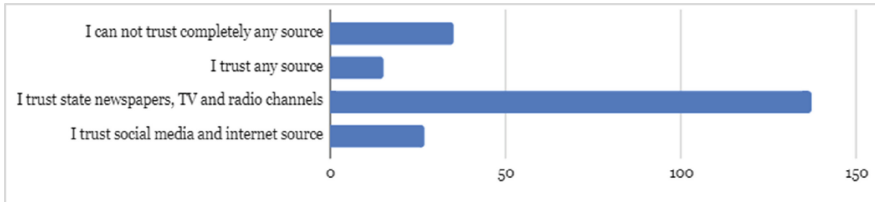

Fig. 2. Librarians' response on trusted sources of information

Another important finding from the survey was that some respondents admitted to using information without proper attribution.

These preliminary survey results played a key role on developing of the fundamentals of MIL program. The researchers were able to apply collected data in the MIL training program to respond to the users needs.

4.2 Post Evaluation Analysis

As mentioned above, 214 librarians took part in a preliminary survey, however after the start date of the MIL training program the number of participants increased to 391 librarians. According to the MIL training program, a post-evaluation test was provided, and a total 317 librarians responded to the survey questions. The online survey contained 50 questions pursuant to MIL course topics, and each correct answer was scored one point. The results of the post evaluation test revealed that only 245 librarians were able to pass the exam, and 87 of them got the highest scores (Fig. 3).
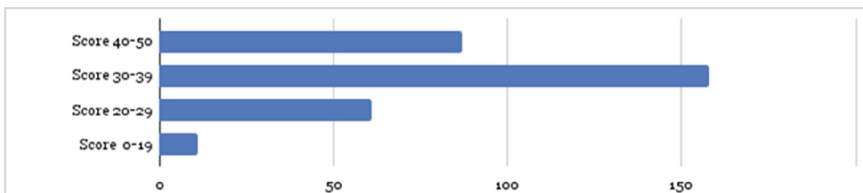

Fig. 3. Post evaluation score results

The questionnaire contained seven specific questions aimed at defining the concept, principles, and characteristics of MIL, and more than 60% (234) of the learners answered correctly. Compared with the preliminary test, where initially about 30 percent of respondents had a correct understanding of the meaning of MIL, the post-test showed that due

to the knowledge gained during the training, the number of participants who indicated the correct answer doubled.

Several questions of the survey were aimed at identifying what MIL activities were carried out during the training by the participants of the program and how effective they were. In the framework of the project, the participants were required to hold activities dedicated to the development of the MIL competencies, which allowed them to practically apply the acquired knowledge and integrate it into the educational process and library activities. As a result of successful MIL activities, librarians reported on the proportion of trained students who learned to evaluate the reliability and quality of information based on different surveys and tests; the highest value was found in the activities of 62 librarians with an indicator of 75%; average value with a score of 50% in the activities of 233 librarians; and a minimum knowledge increase of 25% was found in the event of 22 librarians.

To identify the sustainability and future actions of program participants, the questionnaire asked whether librarians plan to promote MIL in their schools and colleges, and almost 90% (351) of them confirmed that. In the preliminary survey, participants confused various activities with MIL and now in the final questionnaire, respondents indicated the following activities that they plan to conduct in their educational institutions to promote MIL, thus proving that they distinguish MIL activities from other library activities; info-session "Media and information literacy", "References, dictionaries and encyclopedias as a primary source of information", "Journals and newspapers as a source of information", "Internet ethics", "Children and Media (Internet)", "Cyber security", "The structure of the book (journal)", library lesson on "How to search for information (in the library, online)?", "MIL games and quizzes".

4.3   MIL Training Program Content Analysis

Given the knowledge gaps of the project participants, the authors of the training program faced the task of developing an MIL training program according to the information needs of the target audience. The authors of the program, the Nazarbayev University librarians, also acted as trainers, developers, and experts of the SauattyKeleşek project. After studying the results of the preliminary survey, it was decided to include materials on the basic skills of digital literacy and information inclusiveness. Thus, the authors compiled a training program in three sections, which was designed for a total of 16 h of training. Each section was aimed at developing relevant competencies and skills and divided into subsections with thematic units. The teaching methodology included: a theoretical part for studying fundamental knowledge about MIL; a practical part to consolidate the knowledge of the participants of the training; brief testing for summing up; homework, and development of MIL activity projects in their schools and colleges.

The first section of the MIL program is aimed at developing school librarians' knowledge in the field of information, including the importance of developing MIL in education, and the ability to identify its key elements. This section introduces the librarians to the theoretical foundations of MIL and expands their initial knowledge. The material is structured in such a way that librarians would be able to develop their own MIL training program or extracurricular activities on MIL based on initial and gained knowledge and experience. Definitions of various terms and concepts such as "information", "media

and information literacy", and "inclusion" are provided for reference in the section. The material is supplemented with information about various types of information and media sources, their characteristics, including accessibility for people with disabilities, as well as the safety of their use. The material is expanded with the subsection "MIL in Education" to familiarize participants with the scale of MIL as a global movement that brings innovation to the development of society through education. In addition, the main initiatives in the field of MIL promotion and the role of various agents (librarians, teachers, students, and their parents) in the formation of MIL at the local, regional, and international levels are highlighted.

As an example, the first section contained tasks such as analyzing the content of the website, the presence of hyperlinks, studying the types of information presented on the website, as well as performing other assignments such as compiling exercises for schoolchildren to determine the types of information according to the topic covered (Fig. 4).

Fig. 4. Section 1 program content

The second section develops key competencies and skills that ensure effective search, analysis, critical evaluation, interpretation of information, creation, and distribution of media and information products using all required means and tools in a creative, legal and ethical manner. Librarians learn to evaluate the reliability and quality of information, use it in the educational process, and study information prevention for safe and successful communication in a virtual environment, including the Internet and social networks. The materials of this section can be used as a template for the development of information lessons on the topics indicated in the subsections.

The section contains a topic about methods of searching for various information, including scientific, educational, and reference information, in specific local and international databases. Librarians learn to search for information using keywords, address data, or advanced search (Fig. 5).

The second subsection teaches librarians how to evaluate information quality and critically analyze the sources using various methods and tools. Concepts such as argumental assessment, opinion formation, and decision-making are also considered. In this section, the participants learned what qualities can own information, and how to recognize fake information, and disinformation. As an example, exercises on spotting fake information are included in the content (Fig. 6).
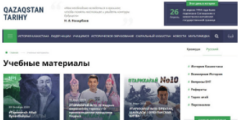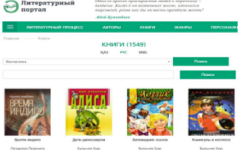
Fig. 5. Section 2 program content

Fig. 6. Popular fake news in messengers

The two previous sections introduced librarians to the theoretical basis and practical skills of media and information literacy, which will allow them to more confidently navigate the information environment, and use media and information products.

The third section teaches librarians that we are both consumers and creators of information sources. The quality of the final information product depends on the ability to analyze and process data, as well as on the competent use of information and communication technologies to achieve desired content. In addition, this section is designed to develop the skills and abilities of librarians to organize and conduct their own MIL training for schoolchildren, their parents, and teachers, taking into account the availability of information for people with disabilities, as well as to apply technologies for creating media and information products.

During the training, librarians gained a range of knowledge about various tools for promoting MIL in education, namely the use of social networks; the creation of presentation materials; the creation of games and quizzes using multiple platforms, and advanced leveraging of Microsoft capabilities (Fig. 7).

In addition to the prepared curriculum, the SauattyKeleşek website was developed as an educational tool. The website contains detailed information about the project, project members and experts, as well as training program materials, including training videos, presentations, and examples of homework. The website is available in Kazakh and Russian languages through the link: https://sites.google.com/view/sauattykeleshek-ru/materials-ru. The statistics indicate two thousand views as of May 2023 (Fig. 8).

To support the sustainability of the project, the authors of the program developed an MIL guide that systematizes knowledge about media and information literacy. The uniqueness and novelty of the guide consists in the implementation of an inclusive
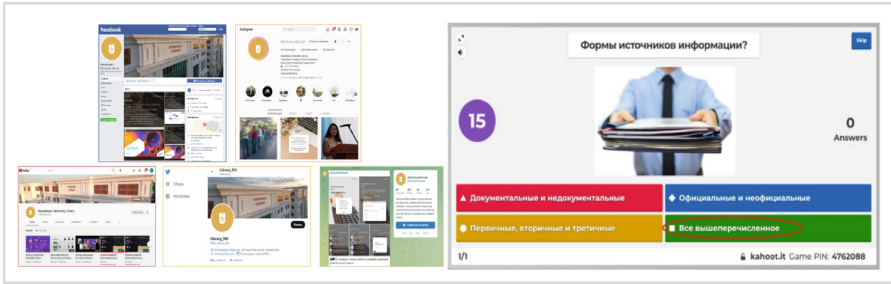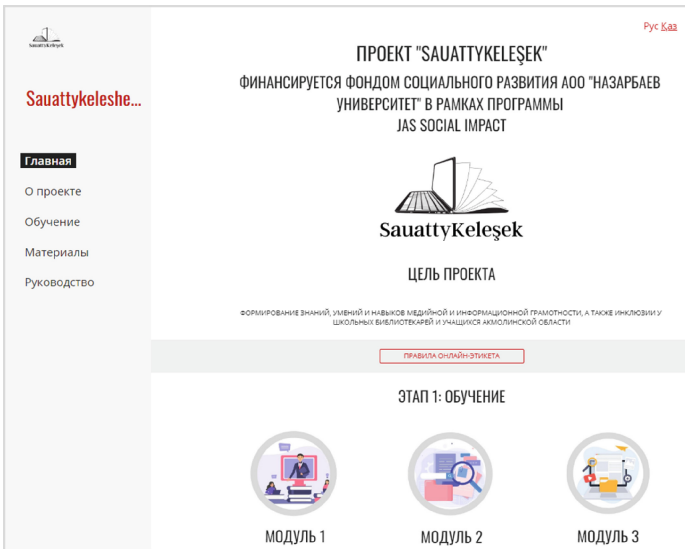
Fig. 7. Section 3 - Exercises

Fig. 8. SauattyKeleşek website

approach to MIL, namely the integration of the principles of accessibility of information for people with special educational needs. The guide was developed on the basis of the training materials of the SauattyKeleşek project and is intended for school librarians, teachers, students, children, and anyone interested in the formation and development of knowledge in the field of information. The guideline is available in open access on the project website (Fig. 9).
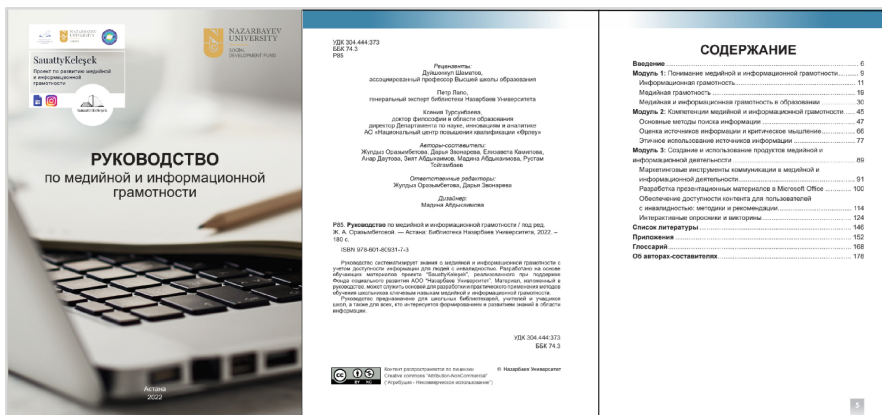
Fig. 9. MIL Guideline

5   Conclusion

The first stage of the project implementation, namely the training of school librarians, lasted from February 28 to March 25, 2022, during regular business days.

Despite the fact that 472 participants were registered for participation, due to the poor quality of the Internet in some regions, only 391 librarians were able to join online training through Zoom. The second phase of the training included practical activities. The librarians conducted MIL activity projects according to the chosen topics. Using the data obtained during the preliminary survey, the authors were able to find out the information needs of librarians and develop relevant educational material for the training implementation. By examining the data collected during the final questionnaire, the researchers were able to get an overall picture of how librarians increased their knowledge in the field of MIL. The content of the program and the topics of the course were logically connected and ergonomically presented to the reader, thereby transferring fundamental knowledge and practical skills for effective work with information.

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