

This is a self-archived version of an original article. This version may differ from the original in pagination and typographic details.

Author(s): Lähdesmäki, Sirkku; Maunula, Minna

Title: Empowering Media Literacy Skills : Enhancing Student Teachers' Awareness of New Literacy Competencies in Teacher Education

Year: 2023

Version: Published version

Copyright: © 2024 The Authors. Published by Elsevier B.V.

Rights: CC BY-NC-ND 4.0

Rights url: <https://creativecommons.org/licenses/by-nc-nd/4.0/>

Please cite the original version:

Lähdesmäki, S., & Maunula, M. (2023). Empowering Media Literacy Skills : Enhancing Student Teachers' Awareness of New Literacy Competencies in Teacher Education. *International Journal of Technology and Inclusive Education*, 12(2), 1910-1919.
<https://doi.org/10.20533/ijtie.2047.0533.2023.0238>

Empowering Media Literacy Skills: Enhancing Student Teachers' Awareness of New Literacy Competencies in Teacher Education

Sirkku Lähdesmäki¹, Minna Maunula²
University of Jyväskylä¹, Kokkola University Consortium Chydenius²
Finland

Abstract

In teacher education, it is crucial to enhance the awareness and understanding of new literacy skills among student teachers, as teachers transmit cultural values through their teaching. Teachers are responsible for defining the knowledge and skills that students can acquire in schools. This study investigates student teachers' awareness of new literacy competencies as a part of the educational and teaching role of schools and teachers. The study employs qualitative content analysis as the research method, and the data analyzed are opinion pieces generated by 37 student teachers enrolled in a media literacy course. The study aims to examine how student teachers identify new literacy skills and their significance. The findings reveal that new literacy and media literacy, along with their interconnectedness, are identified and perceived as significant by student teachers, particularly for promoting students' safe, responsible, and well-rounded relationship with media. The study suggests that creating a secure and empowering connection with media is a shared educational responsibility that necessitates the active participation of both schools and families.

1. Introduction

In the realm of education and learning, the cultivation of empowering experiences and the development of robust competencies require a creative approach to teaching new literacy skills. This becomes increasingly crucial considering the growing influence of digitalization and media consumption. Consequently, it is imperative for education and instructional methods to align with and adapt to the evolving societal landscape. Värri [49] argues that modern pedagogy seeks to create a better future, society, and culture through education. Opportunities for self-directed and non-formal online learning are likely to play an increasingly important role in learning [2]. The concept of literacy has broadened and is intrinsically linked to new contexts [16; 35]. New literacies include not only traditional literacy but also multimodal literacy and the visual, auditory,

and audiovisual dimensions of literacy [16]. Therefore, every student should have the right to develop digital literacy competences. Finland's National Literacy Programme [9] aims to make Finland the most multilingual country in the world by 2030. Such strongly envisioned goals need concrete measures, but also planned strategies at all levels of education to achieve them. The Ministry of Education and Culture [25], in collaboration with the National Audiovisual Institute, has developed a new literacy competency framework to support the implementation of the pre-primary and primary education curriculum. These are intended to serve as tools for education professionals to ensure equal opportunities in the implementation of the New Literacy Programme. The categorization of digital literacy is based on the New Literacies Development Programme [27]. The materials have been compiled on the website for free use by all in both Finnish and English. The materials also include assessment criteria and grade-specific descriptions of the competences for each of the new literacy areas. The aim of developing digital literacy is to promote creative production, active citizenship and thinking skills. The New Literacy Development Program is based on the Finnish National Core Curriculum for Early Childhood Education and Care (2018), the National Core Curriculum for Pre-Primary Education (2014), and the National Core Curriculum for Basic Education (2014) [27]. The program's competency descriptions for new literacies are divided into three categories: media literacy, digital competence, and programming skills. Media literacy refers to the ability to use, understand, evaluate, and produce media content. Digital competence areas include practical skills and personal production, responsible and safe use of Information and Communication Technology (ICT), information management and inquiry-based and creative work, and interaction. Programming competence areas encompass programmed technology in various areas of life and the impact of programmed technology on everyday life [27].

An important role of teacher education is to challenge student teachers to reflect on their own relationship with literacy and to broaden their understanding [25]. Teacher training needs research on new literacies and media literacy skills. Teacher education also needs to be aware, at the pedagogical level, of what new literacies are and how they are used in university pedagogy. As faculty and teachers become more familiar with digital technologies for teaching and learning, new pedagogical responses and strategies will emerge [34]. According to Maunula and Lähdesmäki [22], student teachers' perceptions of literacy, media contexts and inequality vary. However, as they [22] point out, understanding different perspectives of digitalisation, mediated culture and literacy is essential and necessary in a polarizing society. Kinzer and Leu [12] also argue that studying new literacies in the context of new literacies can help to understand and redefine pedagogy in an increasingly digital world.

The objective of this study is to examine the level of awareness among student teachers regarding new literacy competences, which are integral to the educational and teaching responsibilities of schools and teachers. The research question is how student teachers identify the new literacy competencies and their importance and is addressed through the New Literacy Skills [27] classifications. This research aims to shed light on various aspects and domains of new literacies and to enhance teacher training in these areas, based on a solid research foundation.

2. Theoretical Framework

Media literacy is an essential civic skill and, according to Kerkhoff [11], educational equality requires media education that helps people to function in the media world and in different media. The right to learning and equal learning opportunities is enshrined in the Constitution [33]. This aspect of equal opportunities must also be recognized in technology-based education [45]. Thus, according to Kerkhoff [11], learners of all ages can be successful content creators and technology users who promote the sharing of information, ideas, and thoughts, which is essential for active and effective participation in society. The study of new literacy skills and related competences is essential, as the study of media-related phenomena involves the reconstruction of phenomena in the idea of social constructionism [7]. Media education has been extensively researched in the Nordic countries [13], and as defined by the Nordic perspective [3; 40; 13], media education is understood as teaching and learning about media and through media. By approaching media education and new literacies from an inquiry-based perspective, teacher students and students can be guided to become active, creative, and specifically phenomenon-based [20] learners in accordance with the Nordic media

education model.

The role of school is to provide equal opportunities for everyone to acquire the necessary civic competences [31]. Yet across OECD countries, PISA shows that socio-economically advantaged pupils performed significantly better than disadvantaged pupils [26]. Similarly, according to the study by Lobe et al. [19], socio-economic backgrounds and the accessibility of internet technology create significant differences in children's and young people's media usage in Europe. This is also recognized by Şerban et al. [41] that the rapid development of the digital world and its reliance on technology has created a new form of inequality.

Surveys conducted in Australia have revealed a significant disparity in reading skills between pupils from low socioeconomic backgrounds and those from high-income school districts, with the former lagging behind by up to two years [26]. Similarly, in Finland, the PISA studies [30] have shown that boys exhibit lower reading literacy compared to girls, and there is a notable 1–2-year discrepancy in learning outcomes among students with a migrant background [46]. To address these challenges, it is crucial for every teacher trainee to possess systematic and deliberate instruction in new literacy skills. Frau-Meigs et al. [6] assert that new literacies are an integral part of digital citizenship, encompassing competent and positive engagement with digital technologies, responsible participation in communities, lifelong learning across formal and informal settings, and advocacy for human dignity [23]. Moreover, according to the study conducted by Şerban et al. [41] in the European Union, education stakeholders acknowledge the challenges posed by the digital world, including cyberbullying, social manipulation, and online safety, and strive to address and mitigate these phenomena. This underscores a commitment to social inclusion, digitalization, and the overall well-being of young people [41].

In today's society, we find ourselves in a situation where we are learning to navigate multimedia in education, which entails finding a balance between quality, accessibility, and learning outcomes. Literacy also has significant societal effects. Miller and McKenna [24] highlights, that literacy holds significant importance as it serves as a framework for examining various aspects of a country's development, including economic growth, gender equality, resource utilization, and ethnic discrimination. While multimedia has been a longstanding tool in education, the emergence of the internet has introduced new challenges in the selection and integration of appropriate sources for educators and students [44]. This raises concerns about the quality, timeliness, and suitability of usage, as well as the inclusion of diverse perspectives and the packaging of various resources to align with specific learning objectives and assessment methods [40].

Furthermore, achieving a balance between multimedia and open educational resources, in conjunction with instructor-led content, gives rise to issues pertaining to course ownership and the ability to measure tangible learning outcomes.

2.1. Finnish Teacher Education in a Changing Society

Finnish teacher education is conducted at the university level and leads to a master's degree in education. Teacher educators consider their work important, emphasizing its research-based nature and communal perspectives [21]. Finnish teachers are highly educated and motivated professionals. The education they receive is of high quality and aims to provide them with long-term professional skills for a teaching career [48]. In the Finnish educational context, teachers enjoy substantial professional autonomy, which carries a significant responsibility for designing, executing, and evaluating teaching practices of high quality [48]. With great respect and trust placed in them, teachers possess considerable independence when it comes to planning, implementing, and assessing their instructional methods [34].

In Finland, there is no nationwide control or supervision regarding teachers' work. This allows teachers in Finland to focus on their core mission: teaching their students in the best possible way, as stated by Pollari et al. [34]. Teacher education provides comprehensive and versatile competencies for teaching. The curriculum of teacher education for example at the University of Jyväskylä is based on phenomenon-based learning [42]. This means that a continuum and clear connection between theoretical knowledge and experiential learning are desired. Students' authentic experiences of phenomena are respected as the starting point for learning, and theoretical knowledge is seen as being rooted in experiential knowledge and competence-based learning [42]. Media education, information and communication technology skills, and digital pedagogy are also included in university curricula. However, there is inequality in media literacy education among teacher trainees in Finnish universities [14; 36]. Media education and new literacies should be included in the curricula of teacher education programs; otherwise, there is a risk of increasing inequality in teaching with and about media [36].

Teacher trainees are guided to develop their own skills in designing student-centered and interdisciplinary teaching. The emphasis on meeting the student and understanding the student forms an important foundation for teacher work, creating a communal and safe learning environment [20]. Eliciting a sense of relevance in students regarding their learning requires the alignment of the student's

will and understanding towards the phenomenon, as well as an emotional connection, activating the intellectual process. New literacies offer an opportunity to integrate the skills developed by students in informal environments into formal learning in all educational levels. When skillfully utilizing visual, graphic, and auditory textual channels, teaching can engage students with the subject matter through intrinsic motivation. According to Tanhua-Piironen et al. [44], teachers have experienced digitalisation as a largely positive development and a change in the way they teach, both in terms of teaching and administrative tasks. According to them, digitalisation has increased teachers' motivation as the work has become more varied and teaching opportunities have expanded. Time- and location-independent work management has become possible [44] and teachers have a natural opportunity to develop new reading skills.

2.2. Empowering Students' Media Skills and Motivation

Lähdesmäki and Maunula [20] conclude that student teachers recognize the importance of teachers in creating a safe and supportive learning environment that allows for the development of media skills. Lerkkanen's [18] research highlights the role of the learning environment in motivating and engaging students in literacy development, emphasizing the significance of teachers' instructional methods. Lerkkanen [18] emphasizes intrinsic motivation as crucial for learning, as it considers learners' inner experiences, thoughts, perceptions, and emotions in the learning process. The development of new literacy skills should be based on autonomy, motivation, interest, activity, and learner involvement, which align with current learning concepts. Young people use taking pictures as a means of self-expression, and images have narrative value in this regard [11]. Karkar and Loftis [10] assert that new literacies enhance students' intrinsic motivation and facilitate meaning-making since they allow for personalization and autonomy in learning. New literacies enable students to connect their individual needs to their lives and take responsibility for constructing meanings related to the knowledge they encounter or are tasked with learning [15]. The notion presented by Leino et al. [17] is indeed interesting. They discovered that Finnish youth's technological skills were largely acquired through self-study and primarily centered around streaming services, multimedia publications, and instant messaging.

The expectancy-value theory of achievement motivation, as proposed by Eccles [5], highlights the impact of individuals' expectations and beliefs about their abilities on their perception of future task performance. According to this theory, the value component of achievement motivation consists of

three domains: the value ascribed to the acquired skill, its utility value, and its intrinsic or interest value [50; 4]. In other words, individuals' motivation to engage in a task is influenced by their assessment of the skill's importance, its usefulness in practical contexts, and their personal interest or enjoyment derived from the task. Salmi et al. [38] found that pupils with both low motivation and a learning disability were more likely to fail to graduate. Conversely, Ng [28] discovered that positive self-concept fosters learning and interest, while Hyvärinen et al. [8] stress that teachers' pedagogical choices play a crucial role in developing self-concept. New literacy skills combine learners' acquired knowledge, the utility value of a task, and the intrinsic value of interest in a way that can potentially enhance motivation. The development of literacy skills is a key future skill, and it should encompass a broad understanding of the various skills that new literacies represent. The digital reality space requires new era cognitive skills [51], such as information management and critical thinking skills, as well as multimedia literacy.

New literacy skills, such as media literacy, digital skills, and programming skills, have become increasingly sought after by children and young people during their leisure time. A study conducted by Vanttaja et al. [47] highlights that in the 21st century, the internet, smart devices, and social media have emerged as the most crucial topics for media literacy, accounting for 76% of the total focus. Furthermore, a prior study by Lähdesmäki and Maunula [20] reveals that teacher students recognize the narrative value of images, virtual game worlds, and the textual subculture of social media as key aspects of children's and young people's new literacies. From a learning perspective, schools should explicitly build on the expectancy-value theory of achievement motivation and build extended literacy instruction around students' skills and needs, considering future citizenship skills.

3. Data and Method

The aim of this study is to investigate student teachers' awareness of new literacy competencies as a part of the educational and teaching role of schools and teachers. The study employs qualitative content analysis as the research method, and the data analyzed are opinion pieces generated by 37 student teachers enrolled in a media literacy course. The study aims to examine how student teachers identify new literacy skills and their significance.

The study utilized a qualitative content analysis approach to analyze the data. Specifically, the study followed the phenomenology approach, which sought to understand how new literacy competencies manifest in the opinion writings of student teachers [43]. The data used in this study was an anonymous baseline data obtained from previous research [20],

which involved generating anonymous data from student teachers' opinion writings on new literacy skills and media education. The data was collected in the context of media education studies for classroom teachers in adult education. The student teachers were requested to write brief, opinionated, and topical opinion pieces on current media topics related to media education. The data for this study comprised opinion pieces on media education authored by student teachers (N=37) in autumn 2020.

The research data was collected during the media literacy course of the adult education program for primary school teachers. This program is designed in alignment with the principles of lifelong learning, catering to the individual needs of students while addressing the demands of a dynamic society. The training is delivered based on key principles that emphasize the utilization of diverse learning methods and the establishment of student-centered, open, and network-based learning environments.

Typically, written data collection is a common method of data collection in qualitative research [32]. The data analysis approach adopted in this study differed from that used in the previous study. In this study, the analysis was based on the new literacy competency framework [27] which formed the basis for the classification (see Figure 1). The study adopted an abductive approach [29], where the analysis of the data was based on the definitions of the New Literacy Skills competences, and the results were generated from both the data and the theoretical framework. Additionally, the theoretical framework guided the formulation of the research question.

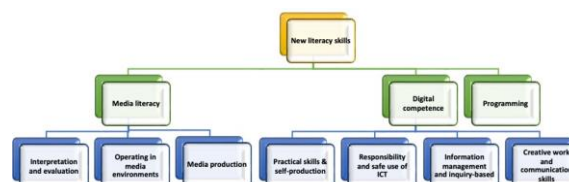


Figure 1. New Literacy Skills Classification [25]

In the analysis table, entries corresponding to each content category were placed in the anonymized base data. The classification criteria used were the new literacy domains. Researchers have been motivated by the nature, emergence, and development of the new literacy phenomenon in the real world [32]. The content analysis produced a set of typical mentions under the predefined classifications, from which a narrative description of the content was compiled. The presentation of the results has taken advantage of the characteristic of qualitative research to present direct quotations from the data that corroborate the findings presented [32]. In addition, research ethical aspects have been considered by using a ready-made classification, which has given the analysis a new perspective and a way of looking at the data from a

different angle. The results are thus mirrored in the context in which or from which the data were collected [32] and this is considered in terms of generalizability. The time span between the analyses is one year, so that a distance has been created between the data. An attempt has been made to understand new literacies as a phenomenon in a multifaceted way [39].

It is important to recognize the limitations of research and to consider their relevance to the process and results of qualitative research. Again, several limitations can be identified in this study. First, only 37 student teachers participated in the study. However, qualitative research aims to describe and understand the research phenomenon in depth, and therefore the size or quantity of the data is not considered the most important measure of robustness [43]. Data was collected from one group of student teachers and the researchers found that there was sufficient data and that the research questions could be answered in depth. It was also possible to interpret the data in an abductive way, with several content components fitting into the analytical framework. During the process, the concepts of the interpretative framework guided the focus of the analysis of the data, but the analysis also retained the nuances of data-driven interpretation.

The strength of the analytical process can be seen as the triangulation of the researchers [32], whereby interpretations are formed through analytical discussions. The validity of a qualitative study can be strengthened by researcher triangulation and self-critical observations, which are made by researchers at different stages of the hermeneutic research process. The researchers' relationship with the research subject and, to some extent, with the subjects is identified as both a strength and a weakness. A deep knowledge of the research subject allows the researcher to discover new perspectives and, on the other hand, to ignore other less relevant perspectives [32]. The article highlights the starting points and context of the research, and this information allows the reader to make their own interpretations and position the substantive meaning of the research [1]. The writings produced by the student teachers constitute the data for this article and were rich in content and central to the article. The critical reader can make independent interpretations of the data and its meanings and mirror them against the aim of the study.

Qualitative research does not aim for generalizability, but the aspect of transferability of results need not be completely ignored [39]. Although the students who participated in the study produced discourses on new literacy discourses from their own starting points, their interpretation allows for loose generalizations to be made and understood from the perspective of social futures and as a wider phenomenon [1]. Through the teacher-student opinion

writing, different representations emerged that can provide an indication of the interaction between the social macro-level and the individual micro-level.

4. Results

In response to the research question of how student teachers identify new literacy skills and their importance, media literacy emerged most clearly as an important and relevant educational task among the new literacy skills. Digital literacy was mentioned to some extent, but programming skills were not mentioned at all. This result is in line with the study by Tanhua-Piironen et al [44], which found that Finnish adolescents have poor instructional skills. It is therefore not very surprising that adult learners do not show a high level of tutoring competence. The results are presented next, classified according to the classification (see figure 1).

4.1. Media Literacy Competence

The consensus was that every teacher plays a crucial role as a media educator, with equal recognition given to the significant influence of the home environment. Schools, at their best, have the potential to bridge the gap in media literacy skills among students. In fact, the lack of media literacy was even compared to a deficiency in traditional literacy. The students' written responses revealed a collective understanding that media literacy is an indispensable civic skill in today's world, particularly as it contributes to promoting equality, equity, well-being, democracy, and active citizenship. Guiding children and young people in developing media literacy skills to effectively navigate and engage with the diverse media landscape emerged as an essential responsibility for educators and educational institutions in a media-rich society.

4.1.1. Interpretation and evaluation. Some highlighted the importance of fostering critical literacy among pupils, and thus developing "empowering media literacy skills". This skill was interpreted as the ability to "analyze". It was also seen that critical literacy skills help to understand the workings of different sites and promote the ability to "see behind the algorithms". A protective perspective emerged and, at its best, media literacy was seen as a "tool for empowerment". Critical media literacy was considered important and skills such as trolling and identifying clickbait headlines were highlighted. Schools were also seen as playing a key role in teaching children about copyright issues. Concerns were raised about the unrealistic image of the human being produced by the media through the images discussed: "Social media exposes today's children and young people to bullying. "The use of manipulated images as models of reality for children and even

though they know they are false; they are influenced by the pursuit of perfection in appearance. Some raised this as a major concern and saw that educators should protect children from this through preventative responsible education. This is supported by home-school cooperation and the recognition that children need media education and critical thinking skills.

4.1.2. Media production. Instagram and Snapchat are popular communication platforms for young people, where interaction is visual communication. Through selfies, young people have a positive opportunity to project their unique personalities to the world. Communicating on social media platforms also guides them to weigh and evaluate the content of their messages. On the other hand, the problem of image sharing, editing and misusing selfies was identified. The results showed that the production of media content also contributes to the development of young people's social and interaction skills." It is important that pupils learn how to interpret different ways of communicating, both in communication services and in social media more broadly." Guiding pupils to practice their interaction skills on social media was perceived as an educational task. Some pointed out how young people's diverse communication skills on digital platforms should be seen as an asset "They can communicate in many different environments and produce different texts in different media. It is important for teachers to understand that communicating through images is an important means of interaction for young people.

4.1.3. Operating in media environments. Aspects related to the management of time spent in the media were raised on several occasions, as was the concern that a child or young person's self-regulation skills are not sufficient to assess adequate media use. Schoolwork and sleep may be neglected. It is also the teacher's responsibility to guide self-regulation skills in relation to media use. Many respondents discussed how to operate in the media world, especially on social media platforms, and several highlighted the positive aspects of media, such as the fact that young people can deal with difficult issues on the platforms." Text-based communication obscures elements of face-to-face interaction, which many young people find helpful, especially for starting a conversation." It also emerged that the voice of children and young people should be heard more in the media. This should be consciously supported by quality media education: "We can practice with pupils right from primary school on what is acceptable and good interaction in the media." Empathy and emotional skills were also highlighted in media production, so that young people recognize the moral rules of the game when communicating. Children need guidance to recognize what is wrong, even criminal, on social media platforms.

The importance of game education also emerged as something that teachers should consider as a learning opportunity. Common rules for playing games should be negotiated with parents and children, but the school should also support this. "An open atmosphere and communication bring security and creates a common understanding in playing". Games can be seen in school as an entertainment medium that should be used wisely and not interpreted as a world full of dangers. In addition to possible restrictions, there is a need for discussion of the issues raised by media and smart devices, as well as guidance and encouragement to create a healthy relationship with media. Modern technology can be seen as an opportunity rather than a threat: "We just need to be able to strike a balance with the digital age, so that smart devices do not become a constraint on healthy living". To put it in cliché terms: smart devices are good servants, but bad masters. Creating a healthy relationship with the media was seen as an educational task.

4.2. Digital Competence

The students' writings provided valuable insights into their perspectives on digital competence, highlighting key aspects such as reliability, safe utilization of information and communication technology (ICT), and creative production and communication. Concerns were expressed regarding excessive screen time and a perceived lack of self-regulation skills; however, the importance of the school's role in cultivating these competencies was recognized. The students also emphasized the significance of creative production, particularly in the realm of visual communication, and the value of developing interaction skills within digital environments, including gaming worlds, as valuable avenues for learning.

4.2.1. Practical skills and self-production. A clear skill that emerged a few times in relation to digitalisation was technology and keyboard skills related to writing. Because without "computer-assisted writing you can't really do without it these days". Similarly, children and young people's informal skills, such as their ability to take pictures, process them and read them on social media.

4.2.2. Responsibility and safe use of ICT. Schools have a crucial role in supporting families in their educational responsibilities and combatting bullying. One important aspect is teaching students about copyright issues, including respecting age restrictions. It is essential to understand that taking selfies and photos is a right, but it should be done with sensitivity and respect for others when using smart devices. Schools should also encourage students to interpret messages across multiple communication channels.

Additionally, accountability includes providing a distraction-free learning environment where technology is not constantly present. Educating students on safe internet usage was also highlighted. "Young children do not need to enter the wonderful world of the Internet and the web, especially on their own and without guidance and supervision. Let children be children in peace". Considerations related to information security emerged in relation to the increased use of mobile devices and e-learning for learning. This calls for the regular development of data protection and security in schools. Alongside this teaching of safe use of technology and media, it is considered important to ensure that schools also allow time for non-technological activities that model time management, learning and interaction.

4.2.3. Information management and inquiry based.

Electronic learning materials alongside traditional books came up in a few articles. Resources need to be found for a wide range of technologies, and not to base digital education only on e-learning materials.

4.2.4. Creative work and communication skills.

The use of photography and images was also seen to motivate pupils to write and tell stories. Photographs taken by the pupils themselves were seen in several pupils' writings as a positive way to communicate and produce a story that reinforces their sense of self. "One can also use this photography in everyday school life, so that selfies and other photos are a motivation for storytelling, photography and writing". As one example, a student highlighted the different ways of implementing peer review through ICTs. PlayStation games were also highlighted as a channel for developing interaction. "Players work in teams, discuss and solve problems." The use of technology and communication in a group setting ideally promotes healthy and empathetic interaction skills for children and young people in the digital world.

5. Discussion

Based on the survey results, it was found that student teachers acknowledge the significance of media literacy as an essential skill that schools should focus on imparting through education and teaching. It is imperative that basic education provides equal opportunities to all children and young people to learn the latest media and literacy skills required today and, in the future [22]. Digital literacy skills received relatively less attention in the survey, and programming skills were not mentioned at all. This is an important finding that should guide teacher training to increase the awareness and skills of student teachers in programming. The results show that student teachers understand the importance of critical media literacy and media content assessment skills in promoting safe media use and preventing media-

related harm, such as bullying. Additionally, there is recognition of the potential of media platforms for storytelling, such as through image-based communication, as an empowering and effective means of expression. Developing self-regulation skills is viewed as a way for schools to promote safe media usage. Furthermore, high-quality media education should also encompass emotional and interaction skills as part of new literacy skills. One encouraging aspect of the survey was the emphasis placed on the potential of games education and its increased recognition as a valuable learning opportunity in schools [5;50].

The analysis of student teacher opinion writings revealed that media literacy was identified as a more important skill than digital literacy. The student teachers emphasized the responsibility of safe use of ICT and the importance of creative work and communication skills. Technical skills in producing texts in different formats were also highlighted. Teaching ICT safety was viewed as an important task for schools to undertake, and the use of electronic textbooks and other versatile learning tools should be instructed [20]. Student self-evaluation was identified as a starting point for promoting narrative skills, while creativity and interaction skills were seen as important in game worlds that require teamwork. It is essential for teacher educators to create diverse learning environments that foster literacy development in a student-centered way [18]. The meaningfulness of literacy increases [9] when it is related to students' lives, and research suggests that student teachers are aware of children and young people's autonomy and ability to produce narratives through media platforms. This creates a range of possibilities for developing each student's reading skills. It is important to note that modeling non-media and non-technology-based time management, learning, and interaction in school is also significant [18].

The inclusive and dialogic collaboration among various stakeholders and actors in the educational guidance system should be continued during the implementation and renewal process of the basic education curriculum [44]. This guides towards strengthening the dialogue and shared orientation towards sustainable education development between the university and education providers. Ideally, teacher education provided by the university is built upon research-based knowledge emerging from the field of education. To align Finnish expertise with the national literacy initiative's 2030 vision, a shared commitment to education development at all levels is needed. It is crucial to enhance the teacher education's teaching and research activities in close cooperation with stakeholders in education and training.

Teaching a wide range of media skills and providing a learning environment that offers opportunities for media content production can, at its best, lead to children and young people learning to

become critical, responsible, empathetic, and skilled media producers and communicators [6; 23]. Their ability to make their own voices heard is built on an education that is safe and empathetic. New literacies provide a natural channel for learning to tap into learners' own beliefs and expectations about their own abilities and motivation to perform future tasks [5;50]. The expectancy-value theory of achievement motivation [5] can be reformulated in the teaching of new literacy skills from the perspective that factors that predict the emergence of intrinsic motivation [37] are positively charged with expectancy-value. The learner can use informally acquired skills in a meaningful and purposeful task by further developing media and digital literacy competencies [10]. The language of social media used by young people and children is an important literacy skill of our time and the field of literacy has expanded. Alongside traditional literacy, new ways of communicating in different media are enriching communication. Fostering interaction and interpretation skills in the media is essential in a multimedia world. While open discussions between adults and children and the establishment of rules for everyday media use are essential, the responsibility for defining media use lies with adults. In an increasingly digitalized world, new literacies are essential for the development of responsible citizens who critically understand the challenges of media overload and create an important future challenge for schools and teachers in their responsibility to teach new literacies.

The new literacy is a broad and ever-changing concept that overlaps with the global dimensions of digitalisation. The concept of literacy encompasses a wide range of contexts and skills, as outlined in this article. Teachers and teacher students have an important gatekeeping role to play in teaching the skills that are essential for the future, one of the core skills being new literacy competency. New literacy competences play a key role in growing up critical and full members of society. Diverse and comprehensive literacy competences enable both integration into society and active participation and equal citizenship [22]. This study distinguishes the dimensions of new literacy competences from the perspective of student teachers. In the light of this study, it can be assessed that student teachers' perceptions are quite strong and aware, but the rapidly changing contexts need to be considered. The importance of new teachers for the responsible and sustainable education of new generations cannot be overemphasized. One of the current phenomena in the field of education is Artificial Intelligence. A new form of artificial intelligence is emerging and poses a challenge both ethically and practically: is it a real threat to thinking or an aid to it? This is a new phenomenon that we must take a stand on and solve devilish problems. The importance of future teachers and as developers of individual and societal equality and agency is

relevant. New literacy competencies, which are adaptable and essential skills for a sustainable future, undergo constant evolution across diverse contexts. Therefore, it is crucial for teachers and teacher training programs to actively monitor digital advancements and remain aware of the accompanying expenses to ensure they stay ahead in these evolving developments.

6. Conclusions

The aim of this study was to explore the enhancing awareness of new literacy competencies in teacher education. The focus was to explore student teachers' perspectives on media literacy and its significance. In teacher education, it is crucial to enhance the awareness and understanding of new literacy competences among student teachers, as teachers transmit cultural values through their teaching. Teachers are responsible for defining the knowledge and skills that students can acquire in schools. This study investigated student teachers' awareness of new literacy competencies as a part of the educational and teaching role of schools and teachers. The study employed qualitative content analysis as the research method, and the data analyzed were opinion pieces generated by 37 student teachers enrolled in a media literacy course. The aim of this study was to examine how student teachers identify new literacy skills and their significance.

Reading is a fundamental skill that can be acquired through various textual methods, making it crucial for teachers to promote literacy in all its forms. The support and recognition teachers provide for students' reading abilities, whether they excel in visual, auditory, or written text comprehension, are immensely valuable. By doing so, we can enhance the value placed on literacy and foster students' enthusiasm for reading. Furthermore, this approach should pave the way for the development of new national and international approaches to assess the acquisition of new literacy skills and competencies. In summary, it can be stated that teacher students have a versatile understanding of new literacy competences. Positive is that they see the possibilities of visual communication and operating on digital platforms to develop communication skills. However, teacher education needs to emphasize the teacher's and school's educational responsibility in terms of new literacy competencies, as self-regulation skills, principles of responsible and safe digital world behavior, versatile technological skills, and preventive education on recognizing digital disinformation and avoiding threats are taught in school. The change is rapid, and teacher education and educational professionals need to be prepared to adapt to the changing digital world, to grasp the new opportunities of artificial intelligence in teaching and learning.

7. References

- [1] Atkinson, P. (2007). *Ethnography: Principles in Practice* (3rd ed.). Routledge. DOI: 10.4324/97802039447 69.
- [2] Christensen, O., and Tufte, B. (2010). Media Education – Between Theory and Practice. In Kotilainen, S. and Arnolds-Granlund, S. (2010). *Media Literacy Education: Nordic Perspectives*. Göteborg: Nordicom.
- [3] Contact NorthNord. (2020). A new pedagogy is emerging...and online learning is a key contributing factor. Teacchonline.ca. <https://contactnorth.ca>
- [4] Deci, E. L., and Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behaviour*. New York: Plenum.
- [5] Eccles, J.S., Adler, T.F., Futterman, R., Goff, S.B., Kaczala, C.M., Meece, J.L., and Midgley, C., (1983). Expectancies, values, and academic behaviors. In J.T. Spence (Ed.), *Achievement and achievement motivation*. San Francisco: W.H. Freeman. pp. 75-146.
- [6] Frau-Meigs, D., O'Neill, B., Soriani, A., and Tomé, V. (2017). *Digital Citizenship Education. Volume 1: Overview and new perspectives*. Strasbourg: Council of Europe.
- [7] Hirsjärvi, S., Remes, P., and Sajavaara, P. (2008). *Tutki ja kirjoita*. 13.-14. -osin uudistettu painos. Keuruu: Otava.
- [8] Hyvärinen, S., Sahito, Z., Uusiautti, S., and Määttä, K. (2022). The teacher's Educational Psychological Game Sense (EPGS) as the foundation of a student's positive self-conception. *International Journal of Research in Education and Science (IJRES)*, 8(1), pp. 50–69. DOI: 10.46328/ijres.2576 (Access Date: 1 November, 2022).
- [9] Kansallinen lukutaito-ohjelma 2030. The Board of Education. <https://lukuliike.fi/kansallinen-lukutaito-ohjelm a/kansallinen-lukutaitostrategia-2030-2/> (Access Date: 13 August, 2022).
- [10] Karkar, T., M., and Loftis, T., M. (2021). Using New Literacies to Foster student Motivation. *Literacy Practice and Research*, 46(1), Article 5. DOI: 10.25148/lpr.009339.
- [11] Kerkhoff, S. (2016). New literacies. In S. B. Mertens, M. M. Caskey, and N. Flowers (Eds.), *Encyclopedia of middle grades education*. Information Age Publishing.
- [12] Kinzer, C. and Leu, D. (2016). New Literacies and new literacies within Changing Digital Environments. 1-7. In: Peters, M. (Eds.) *Encyclopedia of Educational Philosophy and Theory*. Springer. DOI: 10.1007/978-981-287-532-7_111-1 (Access Date: 20 November, 2022).
- [13] Kotilainen, S., and Arnolds-Granlund, S.-B. (Eds.). (2010). *Media Literacy Education: Nordic Perspectives*. <https://urn.kb.se/resolve?urn=urn:nbn:se:norden:org:diva-1 0065> (Access Date: 13 August, 2022).
- [14] Kupiainen, R. (2019). Media Literacy in Finland. In Hobbs, R. and Mihailidis, P. (eds.) *The International Encyclopedia of Media Literacy*. Hoboken, NJ: John Wiley and Sons. DOI: 10.1002/9781118978238.ieml0147.
- [15] Kynäslähti, H. (2019). Mediakasvatuksen tutkimuskohteita. Prezi-esitys. <https://prezi.com/zn0dduc96v4o/media kasvatuksen-tutkimuskohteita/> (Access Date: 13 August, 2022).
- [16] Lankshear, C., and Knobel, M. (2011). *New Literacies: Everyday Practices and Social Learning*. McGrawHill/Open University Press.
- [17] Leino, K., Rikala, J., Puhakka, E., Niilo-Rämä, M., Sirén, M., and Fagerlund, J. (2019). Digiloikasta digitaitoi hin: kansainvälinen monilukutaidon ja ohjelmoinnillisen ajattelun tutkimus ICILS 2018. Koulutuksen tutkimuslaitos - s.
- [18] Lerkkanen, M.-K. (2018). The Influence of Instructional Practices on Reading Motivation in Finland. In P. O. García, and P. B. Lind (Eds.), *Reading Achievement and Motivation in Boys and Girls: Field Studies and Methodological Approaches*, pp. 65-78. Springer. *Literacy Studies*, 15. https://ebookcentral.Proquest.com/lib/jyvaskyla-ebooks/detail.action?docID=537992 4#goto_toc (Access Date: 13 August, 2022).
- [19] Lobe, B. et al. (2007). Researching children's experiences online across countries: Issues and problems in methodology. <http://eprints.lse.ac.uk/2856/> (Access Date: 13 August, 2022).
- [20] Lähdesmäki, S. A., and Maunula, M. (2022). Student teachers' views on media education related to new literacy skills. *International Journal of Technology in Education and Science (IJTES)*, 6(3), pp. 427-442. DOI: 10.46328/ijtes.37 (Access Date: 7 October, 2022).
- [21] Maaranen, K., Kynäslähti, H., Byman, R., Jyrhämä, R., and Sintonen, S. (2019) Teacher education matters: Finnish teacher educators' concerns, beliefs, and values, *European Journal of Teacher Education*, 42(2), 211-227, DOI: 10.1080/02619768.2019.1566317.
- [22] Maunula, M., and Lähdesmäki, S. (2022). Student teachers' perceptions of the connection between literacy, equality, and digitalization. *International Journal on Social and Education Sciences (IJonSES)*, 4(3), pp. 323-337. DOI: 10.46328/ijonSES.392.
- [23] McDougall, J., Zezulkova, M., van Driel, B., and Sternadel, D. (2018). Teaching media literacy in Europe: evidence of effective school practices in primary and secondary education. NESET II report. Publications Office of the European Union. DOI: 10.2766/613204.
- [24] Miller, J.W., and McKenna, M.C. (2016). *World Literacy: How Countries Rank and Why It Matters* (1st ed.). Routledge. DOI: 10.4324/9781315693934.
- [25] Ministry of Education and Culture. New Literacies Programme. <https://okm.fi/en/new-literacies-programme> (Access Date: 11 November, 2022).
- [26] Mitchell, D. (2017). *Diversities in education: effective ways to reach all learners*. New York: Routledge.
- [27] New Literacies. Ministry of Education and Culture.

(2020–2022). <https://uudetlukutaidot.fi/medialukutaito-2/> (Access Date: 1 December, 2022).

[28] Ng, C. (2021). What kind of students persist in science learning in the face of academic challenges? *Journal of Research in Science Teaching*, 58, pp. 195–224. DOI: 10.1002/tea.21652.

[29] Niiniluoto, I. (2018) *Truth-Seeking by Abduction*. Cham: Springer.

[30] OECD 2019. PISA 2018 assessment and analytical framework. Paris: PISA, OECD Publishing. DOI: 10.1787/b25efab8-en (Access Date: 12 October, 2022).

[31] Paavola, H. (2017). Included or not? Factors related to successful preschool education in multicultural preschools from parent's perspective. In A. Hellman and K. Lauritsen (eds.). *Diversity and social justice in early childhood education. Nordic perspectives*. Cambridge Scholars Publishing, pp. 151–172.

[32] Patton, M. Q. (2002). *Qualitative research and evaluation methods*. 3. edition. Thousand Oaks: Sage.

[33] Perusopetuslaki 1136/2003 Finlex. [Constitution]. Edita Publishing Oy. <https://www.finlex.fi/fi/laki/ajantasa/1998/19980628> (Access Date: 11 May 2023).

[34] Pollari, P., Salo, O.-P., and Koski, K. (2018). In Teachers We Trust – the Finnish Way to Teach and Learn. *Inquiry in education*.10(1), Article 4. <https://digitalcommons.nl.edu/ie/vol10/iss1/4>. (Access Date: 13 August, 2022).

[35] Ribble, M. (2015). *Digital citizenship in schools: Nine elements all students should know* (3rd ed.). Eugene, OR: International Society for Technology in Education.

[36] Ruokamo, H., Kotilainen, S., Kupiainen, R., and Maasilta, M. (2016). Media Education Today and Tomorrow. https://www.researchgate.net/publication/306078522_Media_Education_Today_and_Tomorrow (Access Date: 13 August, 2022).

[37] Ryan, R. M., and Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology*, 61. DOI: 10.1016/j.cedpsych.2020.101860.

[38] Salmi, E., Määttä, S., Vehkakoski, T., Aunola, K., Kairaluoma, L., and Pirttimaa, R. (2020). Oppimisvaikeuksien, motivaation ja oppijaminäkäsityksen merkitys ammatillisista opinnoista valmistumisessa. *Oppimisen ja oppimisvaikeuksien erityislehti: NMI-bulletin*, 30 (3), 50–66.

[39] Sarajarvi, A., and Tuomi, J. (2018). *Laadullinen tutkimus ja sisällönanalyysi*. Tammi.

[40] Schofield, D. (2015). *Reflexive Media education. Exploring Mediagraphy as a Learning Activity in Upper Secondary School* [Doctoral Dissertation]. Trondheim: Norwegian University of Science and Technology, Faculty

of Social Sciences and Technology Management, Department of Education.

[41] Șerban, A., M., Stefan, V., Potočnik, D., and Moxon, D. (2020). *Social inclusion, digitalisation and young people. Research study*. Council of Europe and European Commission.

[42] Tarnanen, M., and Kostiainen, E. (Eds.). (2020). *Ilmiömaistä!: ilmiölähtöinen lähestymistapa uudistamassa opettajuutta ja oppimista*. Jyväskylän yliopisto. <https://www.uuttaluova.fi/download/1273/> (Access Date: 13 August, 2022).

[43] Taipale, J., Miettinen, T., and Pulkkinen, S. (2010). Johdanto. teoksessa T. Miettinen, S. Pulkkinen, and J. Taipale (Toimittajat), *Fenomenologian ydinkysymyksiä* (Vuosikerta Gaudeamus, Sivut 9–22). Gaudeamus.

[44] Tanhua-Piironen, E., Kaarakainen, S.-S., Kaarakainen, M.-T., and Viteli, J. (2020). *Digiajan peruskoulu II* (Opetus- ja kulttuuriministeriön julkaisuja 17/2020). Opetus- ja kulttuuriministeriö.

[45] Ukkola, A., and Väättäin, A. (2021). Tasa-arvo, yhdenvertaisuus ja osallisuus koulutuksessa: katsaus kansallisiin arviointeihin (Tiivistelmät 16). Kansallinen koulutuksen arviointikeskus.

[46] Valtiontalouden tarkastusvirasto. (2015). *Maahanmuuttajaoppilaat ja perusopetuksen tuloksellisuus. Tuloksellisuustarkastuskertomus 12*. Helsinki.

[47] Vantaja, M., Järvinen, T., and Norvanto, T. (2017). Mediakulttuuri, koulu ja moraalinen sääätely *Opettaja-lehdessä* 2000-luvulla. *Kasvatus and aika* 11(2), pp. 5–22.

[48] Välijärvi, J. (2017). Suomalainen kouluyhteisö ja opettajan autonomia. In E. Paakkola, and T. Varmola (Eds.), *Opettajankoulutus: lähihistoriaa ja tulevaisuutta* (pp. 290–310). PS-kustannus.

[49] Väri, V.-M. (2018). *Kasvatus ekokriisin aikakaudella*. Tampere: vastapaino.

[50] Wigfield, A., and Eccles, J. S. (2000). Expectancy–value theory of achievement motivation. *Contemporary Educational Psychology*, 25(1), pp. 68–81. DOI: 10.1006/ceps.1999.1015.

[51] Woods-Groves, S., Choi, T., and Balint-Langel, K. (2021). Examining teachers' judgment of students' 21st century skills and academic and behavioral outcomes. *Psychology in the schools* 58(11), 2202–2224. DOI: 10.1002/pits.22585.