CYBERSPACE: BETWEEN CHARACTER CHANGES AND DIGITAL LITERACY PROGRAMS IN ELEMENTARY SCHOOLS IN THE INDEPENDENT CURRICULUM

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Abstract
This research aims to describe changes in the character of elementary school-age students due to the influence of cyberspace and digital literacy programs in the independent curriculum in responding to the challenges of cyberspace influence. This research uses a qualitative approach with a literature study. The data and data sources for this research were obtained from a study of cyberspace and its impact on student character and independent curriculum documents regarding digital literacy programs. This research data was collected from previous research, then critically analyzed and presented in a descriptive narrative. From the results of data analysis, it was found that cyberspace had a positive and negative impact on the character of elementary school-age students. Positive character changes if students have good literacy skills and through guidance from parents and teachers. Meanwhile, elementary school students who do not have good literacy and use cyberspace freely without control have a negative impact on their character. As for digital literacy in the independent curriculum learning outcomes, students are more dominant in having digital skills and are not yet comprehensive in the four pillars of digital literacy (digital skills, digital culture, digital ethics, and digital safety), so the implementation of digital literacy needs to be carried out comprehensively through guidance, parental and teacher control.

Keywords
Cyberspace, Character Change, Digital Literacy, Independent Curriculum

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INTRODUCTION

Cyberspace has become a new interaction space for students. Cyberspace is a very important medium of interaction today. Cyberspace is a place for social, economic, educational, health, and entertainment interactions. The intensive use of cyberspace among students brings changes in character (Fajriani, 2021). Previous research describes the positive use of cyberspace if cyberspace is used for learning and accessing new knowledge and space for economic interaction so that students have creative characters when using cyberspace. Meanwhile, negative character changes include, for example, harassment, decreased cognitive abilities due to online game addiction, cyberbullying, and even criminal character. This rapid change is due to cyberspace freedom (Ningsih et al., 2021).

These changes in student character often occur in elementary school students and greatly influence the learning process in schools such as SD Negeri Cempaka Putih 01 Jakarta and SD Muhammadiyah 11 Semarang. For example, students experience psychological disorders due to prolonged use of cyberspace; they easily get angry at fellow students without justifiable reason, disobey the teacher, and imitate behavior seen in cyberspace during learning (Syifa et al., 2019; Swaika, 2018). This psychological change was also explained by elementary school parents in Gresik City, East Java, that students who used cyberspace unwisely experienced psychological disorders that they felt in their own homes (Purwaningtyas et al., 2023).

Apart from the psychological impact, the unwise use of cyberspace also has an impact on social attitudes. For example, students at the Dadar Al Firdaus School, Surakarta, students lose their sense of caring and do not have a good attitude in class (Susilowati et al., 2019), apart from losing their sense of belonging. Care and lack of etiquette in other places, such as in Tidore Island City, students become individualistic and find it difficult to work together with fellow students (Lukmana & Djamaluddin, 2023). This change can also be seen in students who are not active in communicating with other students and are not active in other physical activities (Rini & Ahsin, 2021). Students also find it more difficult to socialize with fellow students, which affects their learning atmosphere (Yanti & Silvianetri, 2022). They are not sensitive and don’t care about their friends in the class, so this affects the learning atmosphere and learning that will be carried out by the teacher (Saniyyah et al., 2021).

Seeing significant character changes due to cyberspace, the government has revised the curriculum as an answer to facing learning challenges. The change in curriculum is called the independent curriculum. The independent curriculum is the development of the 2013 curriculum to...
respond to faster changes, especially changes in the digital world, which are so fast and influence changes in learning styles and changes in character. This curriculum is a structured program to respond to low literacy, including digital literacy in schools (Hamdi, 2022).

Digital literacy in the independent curriculum, as stated in the Decree of the Head of BSKAP Kemendikbudristek No. 008/H/Kr/2022 concerning Learning Achievements, states that the objectives of the informatics subject for the elementary-high school level are:

a. Thinking to be skilled at solving problems systematically by thinking critically, analyzing problems, and creatively;

b. Understand basic informatics subjects such as computer systems, algorithms and programming, networks and the internet, and data analysis, and know the benefits and challenges for society;

c. Able and skilled in producing simple computational works of art using technological engineering tools and integrating with other knowledge so that it can be comprehensive;

d. Able and skilled in searching for real information and processing this information so that it is useful for society;

e. Demonstrate good morals as a member of society, able to communicate, work together, be creative using ICT, and care about the benefits and challenges for society. Furthermore, the digital literacy program in the independent curriculum can be seen in the following table.

Then, according to the government, a release from the Ministry of Communication and Information stated that there are four pillars of digital literacy: first, digital skills are related to a person's ability to know, understand, and use digital devices. Second, digital safety is the ability to recognize, protect, apply, analyze, evaluate, and increase awareness about the security of personal and digital data in everyday life. Third, digital ethics is an individual's ability to realize, demonstrate, adapt, formulate, consider, and build ethical governance in cyberspace in everyday life. The four digital cultures are the ability to read, understand, internalize, evaluate, and build an understanding of national identity, Pancasila values, and diversity in everyday life (Kominfo, 2021).

Previous research on digital literacy stated that the use of digital literacy requires control and supervision from parents and teachers with an emphasis on digital ethics (Dewi et al., 2021). Meanwhile, research conducted by (Sherli et al., 2022) digital literacy is very important in encouraging 21st-century character because it is relevant to students' needs and tendencies in using digital. Digital literacy activities can also foster students' positive character (Anjarwati et al., 2022), digital literacy can foster good communication and can play a role in global citizenship (Yuniarto &
Yudha 2021), digital content including hoaxes can be used as material to educate students’ character to think critically and wisely in assessing digital content (Palupi, 2020). Meanwhile, this research will analyze changes in the character of elementary school students due to the influence of cyberspace and digital literacy in the independent curriculum.

METHOD

This research was conducted using descriptive analysis methods through literature study, and the researcher explained this research, "Cyberspace: Between Character Changes & Digital Literacy Programs in Elementary Schools in the Independent Curriculum," with the aim of providing an explanation of changes in student behavior due to cyberspace and digital literacy in the independent curriculum in elementary school. The research data source is data about “Cyberspace: Between Changes in Character & Digital Literacy Programs in Elementary Schools in the Independent Curriculum” from books, journals, and media sources. Data collection techniques are carried out using documentation.

Data analysis was carried out by reducing data from books, journals, and media sources and then presenting them descriptively and in tables to draw conclusions. Data analysis was carried out using critical analysis of cyberspace data: between character changes & digital literacy programs in elementary schools in the independent curriculum with relevant theories. Furthermore, researchers also compared it with several related studies.

FINDINGS AND DISCUSSION

Findings

Cyberspace

As many as 85.55% of DKI Jakarta residents aged five years and over have used cyberspace in 2021 (BPS DKI Jakarta, 2021). Of the 85.55% of cyberspace users, 98.21% access cyberspace using mobile phones (BPS DKI Jakarta, 2021).
Figure 1. Cyberspace users aged five years and over

From this data, it shows that 85.55% of DKI Jakarta residents aged five years and over are part of the elementary school age group.

Character Change

The data found regarding changes in student character due to cyberspace can be seen in the following table:

**Table 1. Research on Character Change & Digital Literacy Programs in Elementary Schools**

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital literacy</td>
<td>Researcher, Dewi et al., Digital literacy is a real effort to take advantage of cyberspace in developing student character</td>
</tr>
<tr>
<td>The role of parents</td>
<td>Researcher, Ningsih et al., The role of parents is very important for students’ character in using cyberspace</td>
</tr>
<tr>
<td>elementary school students</td>
<td>Researcher, Husni &amp; Fatulloh, elementary school-age students tend to use cell phones for activities in cyberspace &amp; there are three main purposes for them in cyberspace, namely learning, communicating, and playing</td>
</tr>
<tr>
<td>who use gadgets</td>
<td>Researcher, Syif a et al., elementary school-age students who use gadgets have positive and negative impacts on their character. The positive impact is that students are quicker in searching for information and communicating. Meanwhile, the negative impact is that students experience behavioral changes in the form of psychological development disorders, especially emotional and moral development disorders</td>
</tr>
<tr>
<td>parents prefer</td>
<td>Researcher, Santi et al., parents prefer their children to play at home and give their children the opportunity to play online games with less supervision and guidance. This pattern makes children addicted to online games and causes them to experience changes in behavior, such as getting angry easily, not being able to understand the rules, and being rude to their parents.</td>
</tr>
<tr>
<td>students who are addicted</td>
<td>Researcher, Luthfiyatin et al., students who are addicted to pornographic films on the internet experience changes in sexual behavior. These changes are like copying pornographic sexual behavior, touching the thighs and chest of the opposite sex, and masturbating</td>
</tr>
</tbody>
</table>

- Pengguna cyberspace
- Bukan pengguna cyberspace
Students who intensively use smartphones tend to be lazier in studying, and this has been proven to reduce their learning achievement.

Deviant sexual behavior committed by students is the impact of the easy access to pornographic films on the internet and the freedom of students to use the internet without adequate parental guidance and attention.

The use of digital-based media, if used innovatively, can increase student motivation and learning achievement. The display of image media in social studies learning can increase students’ social competence because students see more concrete things.

Active digital-based learning media, which is carried out in learning and with the help of parents has been proven to be effective in increasing students’ learning motivation.

Digital Literacy in the Independent Curriculum

Digital Literacy

There are four pillars of digital literacy: first, digital skills are related to a person’s ability to know, understand, and use digital devices. Second, digital safety is the ability to recognize, protect, apply, analyze, evaluate, and increase awareness about the security of personal and digital data in everyday life. Third, digital ethics is an individual’s ability to realize, demonstrate, adapt, formulate, consider, and build ethical governance in cyberspace in everyday life. The four digital cultures are the ability to read, understand, internalize, evaluate, and build an understanding of national identity, Pancasila values, and diversity in everyday life (Kominfo, 2021).

Figure 2. Pillars of Digital Literacy

Digital Literacy in the Independent Curriculum

In the independent curriculum structure published by the Ministry of Education and Culture, Informatics subjects are not required at the elementary school level. Digital literacy is
internalized in other subjects. Apart from being internalized in other subjects, it is possible to drive schools to include digital literacy in local content according to local content options that have been regulated in each regional regulation. The following data regarding the digital literacy pillars of the Ministry of Information and the content of informatics learning outcomes in the independent curriculum are presented in the following table:

Table 2. Digital literacy pillars & digital literacy programs in the independent curriculum

<table>
<thead>
<tr>
<th>Digital Literacy Pillar</th>
<th>Independent Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Skills</td>
<td>think to be skilled in solving problems systematically by thinking critically, analyzing problems, and thinking creatively; Able and skilled in producing simple computational works of art using technological engineering tools and integrating them with other knowledge so that it can be comprehensive Able and skilled in searching for real information and processing this information so that it is useful for society</td>
</tr>
<tr>
<td>Digital Ethics</td>
<td>understands basic Informatics subjects such as computer systems, algorithms and programming, networks and the internet, and data analysis, and knows the benefits and challenges for society;</td>
</tr>
<tr>
<td>Digital Culture</td>
<td>Showing good morals as a member of society, able to communicate, work together, and be creative using ICT and care about the benefits and challenges for society</td>
</tr>
<tr>
<td>Digital Safety</td>
<td>-</td>
</tr>
</tbody>
</table>

Discussion

Cyberspace and elementary school students' activities in accessing the internet and being in cyberspace for an average of 2 – 5 hours a day (Wita et al., 2018; Syifa et al., 2019). Activities in cyberspace have a significant psychological and behavioral influence on students (Syifa et al., 2019). Meanwhile, cyberspace users in Jakarta, for example, 85.55% aged five years and over, have used cyberspace in 2021 (BPS DKI Jakarta, 2021). This data shows that elementary school-age users account for 85% of cyberspace users. Of the 85.55% of cyberspace users, 98.21% access cyberspace using mobile phones (BPS DKI Jakarta, 2021). This data shows that users are difficult to control because they are in their own private space, including elementary school students. This makes a significant change in character for elementary school students.

Character changes due to cyberspace for elementary school students in several studies shown in the data show that using cyberspace innovatively and wisely can increase students' learning motivation in elementary schools. The role of teachers in providing digital literacy education to
students in using digital media actively and innovatively is very important in a digital literacy program. Apart from that, parental guidance for students in using digital media at home is also very important so that students use digital devices appropriately. Collaboration between teachers in providing literacy learning based on digital media and supervision from parents regarding the use of digital media at home are the keys to the benefits of using cyberspace for elementary school students (Ratri, 2018; Santi, 2021). Collaboration between parents and teachers in guiding students in using cyberspace is the key to having a positive influence on students’ character development (Garini et al., 2020). This control ensures that the impact of cyberspace can be positive for students and minimizes the negative impact. This control carried out by parents is very important because many students experience changes in character because they are in free cyberspace (Santi, 2021).

Students who use cyberspace freely and without discipline have an impact on decreasing learning motivation, getting bored easily, getting annoyed with the learning given because they want to be in cyberspace, and ultimately, their learning achievement decreases (Ula, 2021). This change in character will be more significant if students experience cyberspace addiction. 31.4% of teenagers, including elementary school age, are addicted to using cyberspace in Jakarta (Kurniasanti et al., 2019).

Digital literacy is the answer and complement to parental control and teacher guidance. Digital literacy for elementary school students carried out by teachers and parents is to educate elementary school students to use digital media and communication tools wisely, regularly, and disciplined and to use them fully to support learning, not neglect learning. Digital literacy in learning is intended to find, evaluate, use, manage, and create information, process information wisely, and use it creatively (Naufal, 2021; Sulistyarini & Fatonah, 2022).

The implementation of digital literacy in the independent curriculum in elementary schools has a positive impact on students, providing an understanding of the wise use of digital in learning (Adawiyah, 2022; Handayani, 2023; Thana & Hanipah, 2023). If learning in the independent curriculum is implemented with an innovative model and integrated with digital literacy, students will be better at solving spatial problems (Destiana et al., 2023).

The four pillars of digital literacy that have been announced by the government through the Ministry of Information have not been fully realized in the form of programs in the independent curriculum. This can be seen from the informatics learning achievement data presented in the research findings. In the independent curriculum, skills in using digital are a priority. This skill is
very important in accommodating elementary school students’ enthusiasm for using digital devices (Riswandi, 2013). However, teaching digital literacy so that it is safe, culturally appropriate, and ethical to use digital devices is very important to elementary school students, but it has not been done optimally (Chintia et al., 2018). From the research findings, it can also be seen that the curriculum structure shows that the Informatics subject does not exist and is only internalized in other learning or through local content.

The internalization of digital literacy in all independent curriculum learning requires guidance and training for teachers to teach students about digital literacy with the four pillars that have been socialized by the government because these four pillars are very important for schools to become schools, teachers and students who are wise in using digital devices (Septiana & Hanafi, 2022).

CONCLUSION

Cyberspace can have a positive impact and can have a negative impact on student character. Students are creative and innovative if cyberspace is used creatively and innovatively in learning and supported by parental supervision at home. Has a negative impact on psychological and mental disorders, has a negative impact on social attitudes, and reduces motivation to learn due to lack of literacy and parental supervision. Creative and innovative use of cyberspace in learning is part of digital literacy. The digital literacy program in elementary school is not in the form of student content but is combined with other lesson content. If you want to include it in your own lesson content, then the lesson content is local content. The digital literacy program in the independent curriculum is more dominant in literacy for students to be skilled in using digital devices. Digital literacy in the independent curriculum does not specifically equip students with the four pillars of digital literacy (digital skills, digital culture, digital ethics, and digital safety).

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