DEVELOPING DIGITAL COMPETENCE FOR SELF-DEVELOPMENT AND FULFILLING DAYLY NEEDS OF SMA YUPENTEK 1 TANGERANG CITY STUDENTS

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ABSTRACT

The digital era has accelerated the development of information and communication technology, enabling fast internet access anytime and anywhere. Senior high school students need to build digital competencies to become more independent in meeting their daily needs and personal development. This community service activity aims to enhance students' digital skills through socialisation, practical training on digital applications, and evaluation. The results highlight the positive impact of such initiatives on student growth and learning, able to leverage technology as a powerful tool for self-improvement and addressing their everyday needs, modern challenges and improving quality of life, nurturing students' creative abilities, better digital habits, digital skills and range of practical skills.

Keywords: digital competence, digital literacy, self-development, high school students, daily needs

1. INTRODUCTION

In the current digital era, the rapid development of information and communication technology (ICT) has significantly influenced multiple aspects of daily life. The availability of internet-based digital resources enables individuals to access information anytime and anywhere, provided there is network connectivity, data or Wi-Fi access, and supporting devices. The ownership of computers, smartphones, and other digital resources offers great potential for self-development and for meeting daily needs. One of the most notable positive impacts is the increased access to useful information that supports personal growth and life fulfilment. However, not all high school students possess the necessary digital skills to take full advantage of this potential.

Bryn Mawr (2016) the digital competencies articulated here provide a framework intended to help individual Bryn Mawr students:

a) *Identify the digital skills and critical perspectives they will need to be 21st century leaders,*
b) *Seek curricular and co-curricular opportunities to hone those skills and perspectives while at Bryn Mawr College,*
c) *Develop ways of articulating and demonstrating their competencies to various audiences.*

The internet provides extensive opportunities for self-directed learning in diverse areas such as English language proficiency, entrepreneurship, video editing, automotive repair, and electrical work. For adolescents transitioning into adulthood, particularly senior high school students, developing a range of digital skills is essential for independence and self-sufficiency. Such skills include using applications for everyday purposes (e.g., creating a CV, calculating distances, booking travel tickets, making digital payments), managing essential documents (e.g., national ID card, family card, driver's licence), applying for jobs, and planning long-distance travel.

Digital competence extends beyond technical abilities; it encompasses the capacity to effectively use information technology to meet daily needs. Gilster (1997) defined digital literacy as "the ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers" (p. 1). Ng (2012) further described digital competence as comprising technical, cognitive, and socio-emotional dimensions, including hypertext navigation, content evaluation, and online collaboration. Despite the potential benefits of digital technologies, brief interviews with high school students revealed a lack of practical digital skills, with many unable to answer basic real-world questions such as estimating travel costs, identifying postal codes, or naming video editing applications.

Empirical studies have highlighted the role of digital literacy in enhancing students' learning outcomes. For example, Dewi (2024) found that the active use of online journals, e-books, and educational applications improved students' information literacy skills. Similarly, Kasriyati et al. (2024) reported that high school students' digital literacy levels were moderate, stressing the importance of online safety, privacy, and digital ethics education. Iordache et al. (2017) proposed various digital literacy models aimed at supporting competence development in the context of the evolving

"Society 5.0." More recently, research published in *Frontiers* (2025) emphasised the importance of digital literacy in self-regulated and adaptive learning strategies that contribute to academic performance.

Given that many adolescents tend to adopt a reactive rather than proactive approach to problem-solving, it is critical to provide them with the knowledge, skills, and preparation needed to navigate the demands of modern life. Therefore, developing digital competence among high school students is not only essential for current educational needs but also a prerequisite for successful adaptation in a technology-driven future.

2. METHOD

The activity was conducted in person and attended by 50 students from Tangerang City. The location of SMA YUPENTEK 1 is approximately 15 kilometres from Mercu Buana University in Jakarta. The implementation took place on Tuesday, March 11, 2025.

This face-to-face activity involved 50 students from grades 11 and 12, accompanied by six teachers and one public relations officer from the school. The main activity in this community service programme was socialisation and education through a presentation method, supported by PowerPoint materials and digital products. These included content related to self-development and competencies needed for future problem-solving.

This community service initiative was carried out in three stages: planning, implementation, and evaluation. The stages are detailed as follows:

1. Preparation Stage
2. Implementation Stage
3. Evaluation Stage

The role of the partner school was to mobilise participants, provide facilities, introduce the event, and follow up on the outcomes of the discussions. University students played an important role as technical staff for the event, including registration, documentation, and assisting with the technical implementation. Certificates awarded to participating students can be used to fulfil final project or graduation requirements.

In addition to providing the venue and mobilising students, the partner school also guided the discussions and shared insights regarding the socio-demographic conditions, students' needs for skill development and self-growth, and information about job opportunities, entrepreneurial pathways, or further study options pursued by the students.

3. RESULTS AND DISCUSSION

The material on digital literacy focused on equipping adolescents transitioning into adulthood with knowledge and skills related to applications, information sources, and activity planning. This content was delivered using PowerPoint presentations and included explanations of digital literacy concepts and how to use various applications and how to search for job opportunities and was followed by a Q&A session on how to build a digital identity in preparation for adulthood.

Figure 1 shows an instance of the material about the Developing Digital Competence For Self Defelopment and Fulfilling Dayly Needs of SMA Yupentek 1 Tangerang City Studebts discussed during the information dissemination activity. During this activity, the students followed the event seriously, showed interest in the material presented and several students asked questions,

Figure. 1. Photo documentation

Figure 2 shows the results of this community service activity, namely publications in several mass media, one of which is Medcom.id as follows;

Figure 2 Online Mass Media

Based on participant data, a total of 89 students took part in this community service activity. The gender composition was 60.7% male and 39.3% female. Regarding class level, 46.3% were from grade 10, while 50.6% were from grade 11.

Student evaluations of the activity were highly positive:

1) Very Good: 65.89%
2) Good: 27.00%
3) Fair: 5.9%
4) Poor: 0.59%
5) Very Poor: 0.53%

Thus, a total of 92.89% rated the activity as “good” or “very good,” while only 1.32% considered it “poor” or “very poor.” Overall, participants expressed satisfaction with the topic, content, delivery method, student engagement, speaker accessibility, and communication media used during the session. The timing, location, and perceived benefits were also considered appropriate and useful by the students.

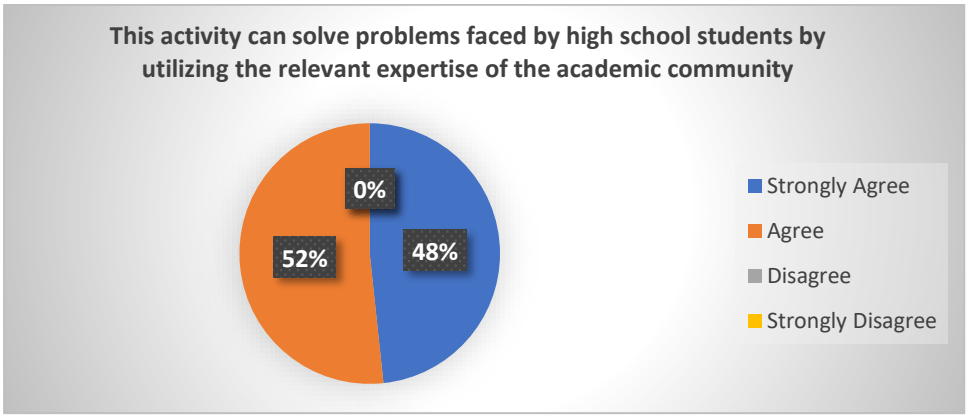

Figure 3 Students solve problems

Figure 3 shows that the Community Service Activity related to digital competence can be used to address various challenges faced by high school students. By leveraging the expertise of the academic community, this activity helps students improve their digital skills. The ability to use information technology effectively can aid in problem-solving and personal development. According to the data, 48% of respondents strongly agree with the effectiveness of the activity, while 52% agree. This reflects a high level of support among students for using digital competence in overcoming daily challenges. Overall, the findings highlight the positive impact of such initiatives on student growth and learning.

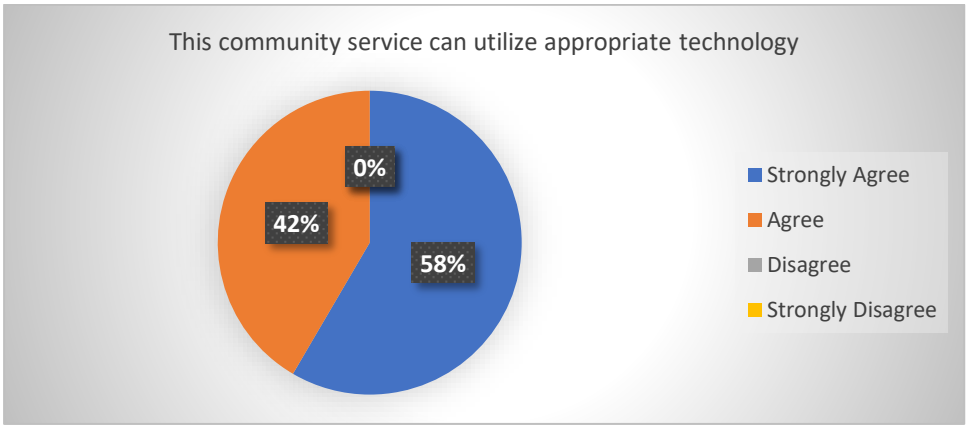

Figure 4 utilized a technology

Figure 4 illustrates that the Community Service Activity focused on digital competence plays a significant role in both self-development and fulfilling daily needs. According to the data, 48% of respondents strongly agree with this statement, while 52% agree. This high level of agreement suggests that students recognize the value of digital skills in improving their lives. The ability to navigate information technology allows students to access a wealth of resources for personal growth, from educational content to practical tools for everyday tasks. This indicates a strong awareness among students about the importance of digital competence in today's society. Overall, the results show that students are increasingly able to leverage technology as a powerful tool for self-improvement and addressing their everyday needs.

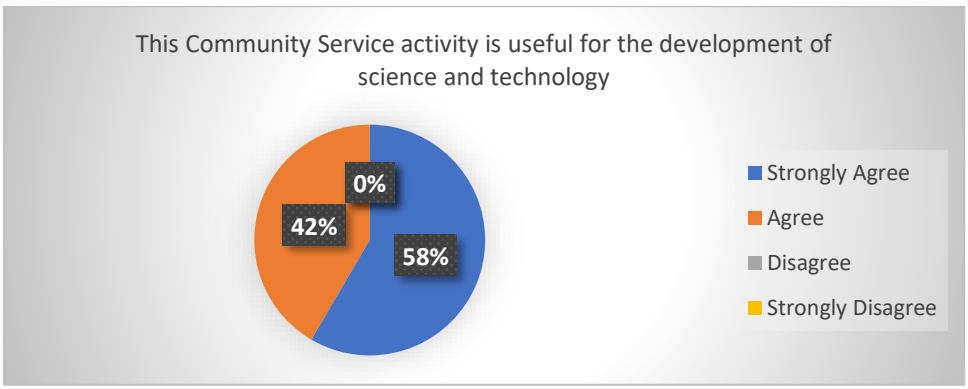

Figure 5 Development of science and technology

Figure 5 illustrates that the Community Service Activity, which focuses on digital competence, plays a crucial role in the development of science and technology as it relates to everyday needs. According to the data, 58% of respondents strongly agree with this statement, while 42% agree. This indicates that a majority of participants recognize the significant impact that digital skills have on both technological advancement and the practical application of science in daily life. By equipping students with the tools to navigate and understand digital technology, they are better prepared to contribute to ongoing scientific and technological progress. The high percentage of agreement further suggests that students see digital competence as a key factor in addressing modern challenges and improving quality of life.

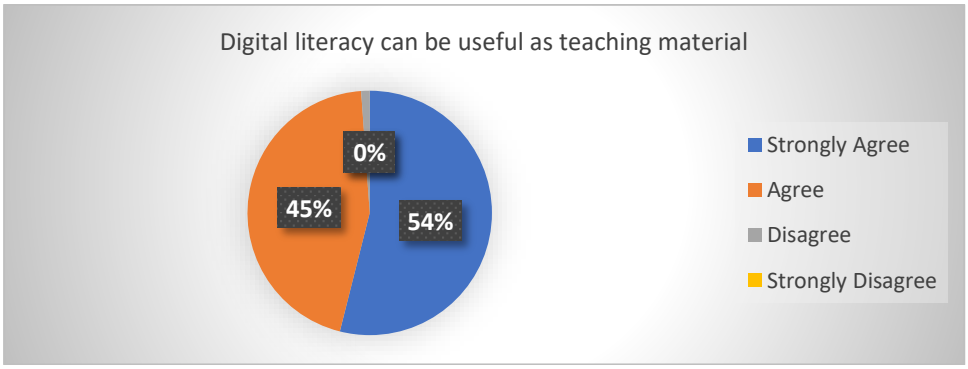

Figure 6 Digital literacy for Teaching material

Figure 6 shows that the Community Service Activity, which emphasizes digital competence, can be an effective teaching resource for students. According to the data, 54% of respondents strongly agree with this, while 45% agree. This suggests that a majority of students recognize the value of digital skills in enhancing their learning experience. The high level of support indicates that integrating digital competence into education can help improve both teaching and learning outcomes. Overall, the results highlight the growing importance of digital literacy in modern education.

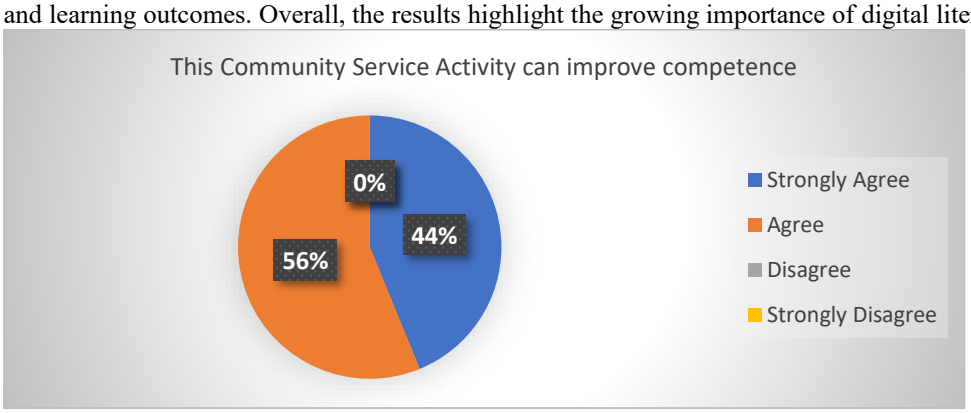

Figure 7 Improve competence

Figure 7 shows that the Community Service Activity can help improve personal competence. According to the data, 44% of respondents strongly agree with this, while 56% agree. This indicates that most students believe the activity plays a key role in enhancing their personal skills and abilities. The results suggest that such initiatives are effective in boosting self-confidence and personal growth. Overall, the data highlights the positive impact of community-based programs on student development.

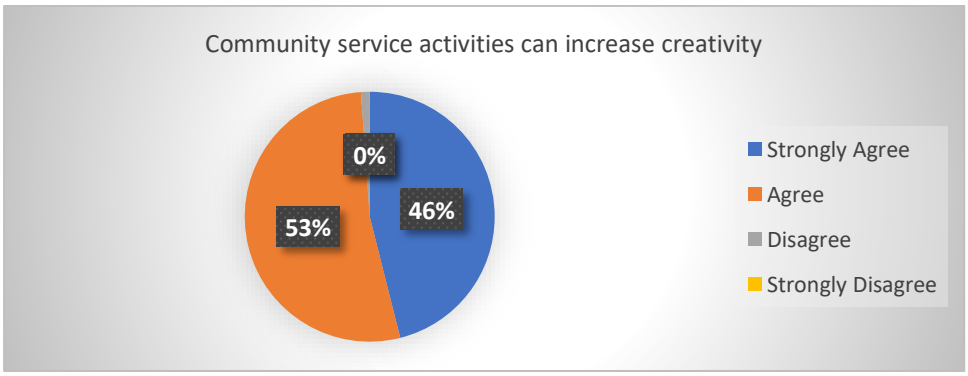

Figure 8 Increase creativity

Figure 8 shows that the Community Service Activity can help boost students' creativity. According to the data, 46% of respondents strongly agree with this, while 53% agree. This suggests that most students feel the activity encourages them to think more creatively. The results highlight the positive impact of such programs in fostering innovative thinking. Overall, the data reflects the value of community service in nurturing students' creative abilities.

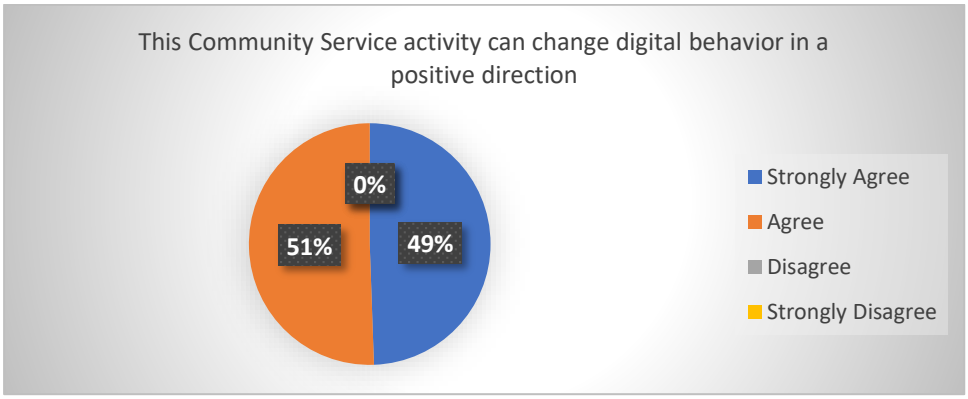

Figure 9 Change digital behavior

Figure 9 shows that the Community Service Activity can influence digital behavior. According to the data, 49% of respondents strongly agree with this, while 51% agree. This indicates that the activity has a noticeable impact on how students approach and use digital technology. The results suggest that such programs can encourage more responsible and effective digital practices. Overall, the data highlights the potential of community service in shaping better digital habits among students.

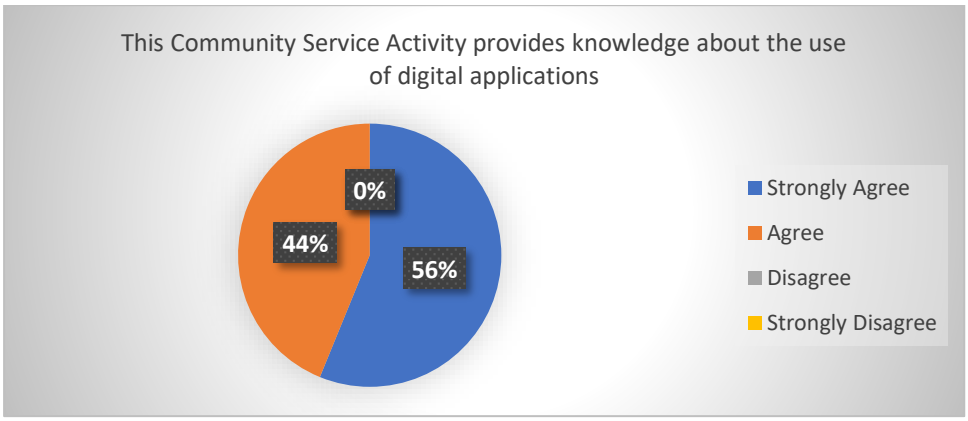

Figure 10 Knowledge about the use of digital applications

Figure 10 shows that the Community Service Activity can enhance students' knowledge of using digital applications for daily needs. According to the data, 56% of respondents strongly agree with this, while 44% agree. This indicates that the activity significantly improves students' understanding of how to apply digital tools in everyday life. The results highlight the practical value of such programs in equipping students with useful digital skills. Overall, the data suggests that these initiatives are effective in expanding digital literacy for practical use

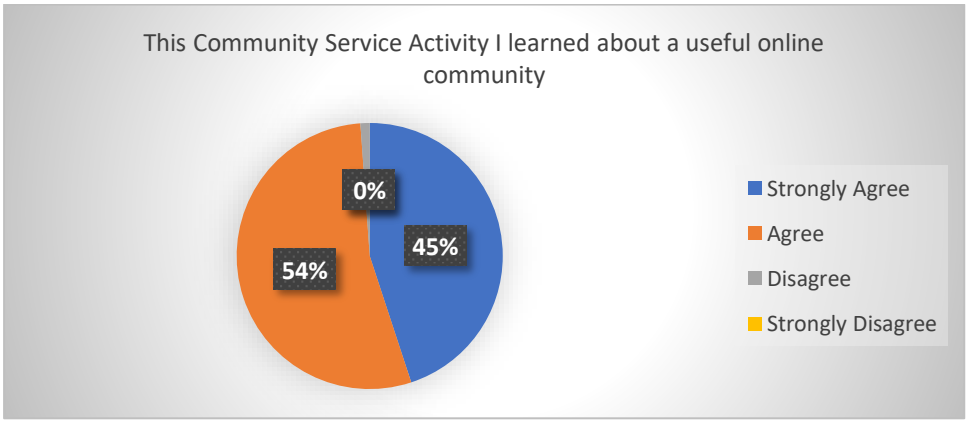

Figure 11 Online community

Figure 11 shows that the Community Service Activity can help increase online communities for students. According to the data, 45% of respondents strongly agree with this, while 54% agree. This suggests that the activity fosters greater engagement and connection among students in online spaces. The results reflect the growing importance of digital networks in supporting student collaboration. Overall, the data highlights the role of community service in strengthening online student communities.

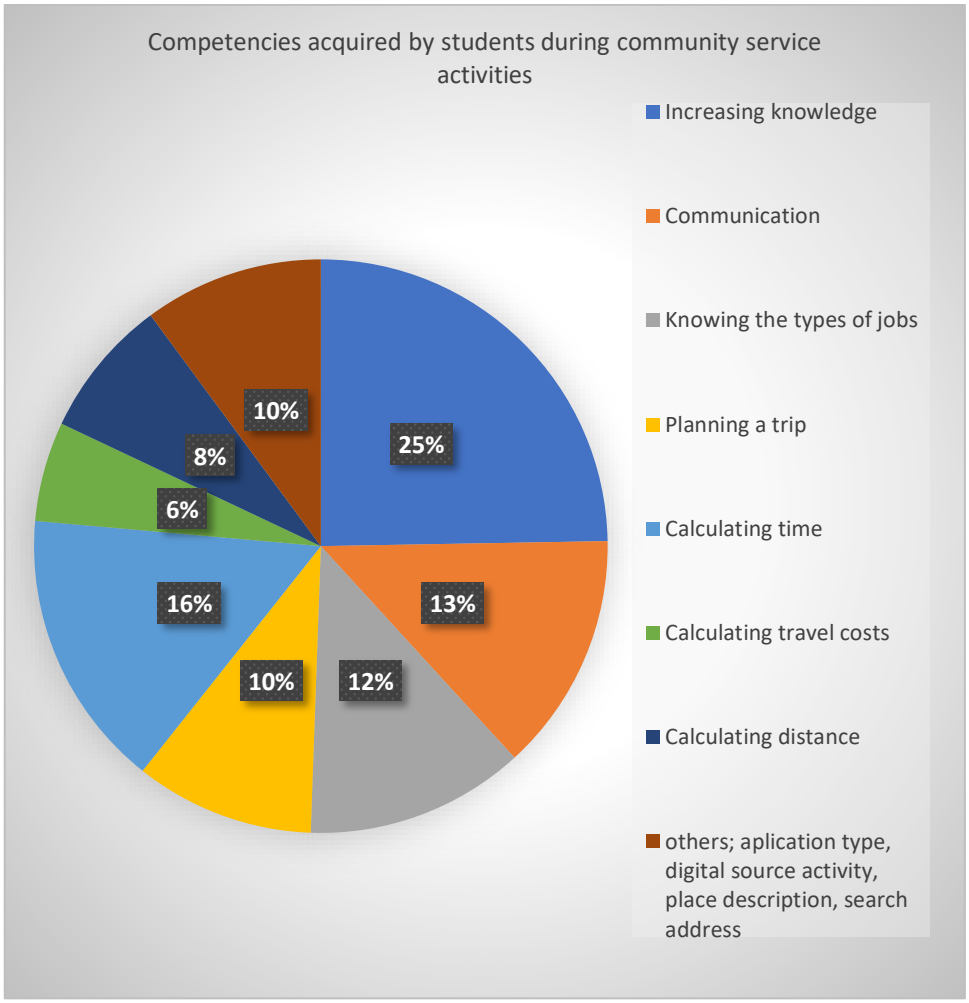

Figure 12 Students acquired Competencies

Figure 12 shows that the Community Service Activity helps students acquire various competencies. According to the data, 25% of respondents report an increase in knowledge, while 13% gained better communication skills. Additionally, 10% improved their ability to plan trips, and 16% enhanced their skills in time management. Other competencies gained include calculating travel costs (6%), calculating distances (8%), and 10% gained skills in areas like application use, digital sources, place descriptions, and address searching. These results indicate that the activity covers a broad range of practical skills. Overall, the data highlights the diverse ways in which digital competence supports students' personal and academic growth

The **long-term impact** of this digital literacy education is reflected in students' improved understanding and ability to use digital media, online communication tools, and various applications. These skills include searching for and selecting media content, using applications to book transportation, and acquiring other practical digital abilities that will be essential for future needs such as continuing education, travelling, or seeking employment after graduation.

4. CONCLUSION

This community service programme successfully improved the digital competence of students at SMA Yupentek 1, as evidenced by their increased understanding and application of practical digital technologies. Similar programmes should be continued and expanded to ensure students are well-prepared to live independently and adapt effectively to

rapid technological changes. The findings underscore the significant positive impact of such initiatives on students' academic and personal development. Through the effective integration of technology, students are empowered to engage in self-directed learning and continuous self-improvement. These programs equip learners with the capacity to navigate everyday challenges and adapt to the demands of an increasingly digital world. Furthermore, they contribute to enhancing students' overall quality of life by fostering critical thinking and problem-solving abilities. The initiatives also play a vital role in cultivating creativity, responsible digital behavior, and ethical use of technology. Ultimately, students acquire not only advanced digital competencies but also a broad range of practical skills essential for future success.

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