Data Article

Survey data of internet skills, internet attitudes, computer self-efficacy, and digital citizenship among students in Indonesia

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\textbf{A R T I C L E   I N F O}

\textbf{Article history:}
Received 6 October 2021
Revised 26 October 2021
Accepted 4 November 2021
Available online 16 November 2021

\textbf{Keywords:}
Digital citizenship
Internet skills
Internet attitudes
Computer self-efficacy

\textbf{A B S T R A C T}

Dataset provides wide measurement data on internet skills, internet attitudes, computer self-efficacy of the students related to the digital citizenship in Indonesia. Due to the pandemic of Covid-19, the survey was conducted online by considering the informant consent on assessing demographic information (7 items), internet skills (9 items), internet attitude (5 items), expertise and skills in using a computer (5 items), respect (6 items), educate (5 items), and protect (4 items), which was carried out from March to April. There were a total of 581 respondents selected through probability sampling based on random convenient sample from 12 public and private senior high schools which spread throughout 5 cities in Central Java, Indonesia. The survey data were analyzed using multivariate analysis and partial least structure with the analysis technique of Structural Equation Modelling (SEM). In the future, this data can help educators, researchers, and educational policy makers to determine the level of readiness

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https://doi.org/10.1016/j.dib.2021.107569
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of students’ digital citizenship attributes and efforts to conduct further research on efforts to strengthen digital citizenship in curricular programs.

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### Specifications Table

| Subject | Social Sciences |
|---------|----------------|
| Specifc subject area | Education |
| Citizenship education |
| Type of data | Primary data, Tables |
| How data were acquired | Data were acquired through online platform survey (Google Form) at the selected schools. The questionnaire is provided as a supplementary file. The acquired data were imported to Excel and analyzed using SmartPLS 3 software. |
| Data format | Raw, analyzed, and descriptive data |
| Parameters for data collection | The survey data were acquired from 581 students in the period of March-April 2021 |
| Description of data collection | The help of probability sampling and random convenient sample combination was used to select the respondents through Google Form at 12 schools in Central Java, Indonesia |
| Data source location | Survey was conducted in the 5 cities are Surakarta, Karanganyar, Boyolali, Klaten, and Sukoharjo |
| Data accessibility | Dataset is uploaded on Mendeley Repository name: Mendeley Data identification number: https://dx.doi.org/10.17632/2rvzyk3rjd.2 Direct URL to data: https://data.mendeley.com/datasets/2rvzyk3rjd/1 |

### Value of the Data

- The dataset helps provide empirical evidence on digital citizenship readiness among students in Indonesia. The main attributes of digital citizenship include respect, educate, and protect (REP) and the factors that have an impact on digital citizenship are also presented.
- The dataset will be useful for the researchers who want to make comparison with similar research, specifically the preparation for the digital citizenship aspect to face the era of Society 5.0.
- The dataset can be used to enlighten Indonesian educators and educational policymakers in taking further efforts to equip students with the knowledge of how to respond to the abundance and ease of access to technology in a responsible manner, especially in the aspects of technology literacy and ethics when using the internet.

1. **Data Description**

The data in this article provides in-depth information about the level of digital citizenship readiness of Indonesian students by looking at the factors such as internet skills, internet attitudes, and computer-self efficacy. The survey in this study involved 581 students that spread across 12 senior high school consisted of private and public school in Central Java, Indonesia. The focus of data collection consists of three groups of variables, including (A) Demography and Socio-Economy of individuals, including gender, age, school of origin, parents’ educational background, frequency of internet usage in one day, types of gadgets used in accessing the internet, and the monthly internet budget that the students spend in using the internet. (B) The variable of computer and internet competence which includes the ability and expertise of students in
using/operating a computer which are outlined in 19 question items that are aimed at measuring students’ internet skills, internet attitudes, and self-efficacy. And (C) 15 question items to measure the level of digital citizenship of students based on three main components, namely respect, educate, and protect (REP). All question items used to measure the two variables of the computer group, internet competence, and student digital citizenship were measured using a Likert scale with 5-point intervals (Strongly Agree to Strongly Disagree) which are presented in Tables 1–8.

Table 1 presents the characteristics of the respondents based on the demography and socio-economy of the respondents. Previous studies denote users’ individual background such as gender, age, frequency of internet usage, and parents’ educational level have influential relationship with digital citizenship. Choi et al. [1] reported that individual background has narrowly impacted to digital literacy. Hargittai [2] found that parental education has no longer related to digital tools use but it is imperative in explaining variation in user skill. Besides, Wang and Xing [3] examined that parents’ socioeconomic status includes parents’ income and education level as a significant predictor of digital citizenship.

Meanwhile, Table 2 describes the frequency distribution for each question item in the questionnaire. In Table 3, the data on the relationship between the demographic characteristics of the respondents and the variables are presented in a contingency table to show the interactions that occur between the demographic and socio-economic variables of the respondents and the variables of internet skills, internet attitude, computer self-efficacy, and digital citizenship which were reviewed from 3 components including respect, educate and protect in details.
Table 1
Demographic and socioeconomic characteristics (n = 581).

| Variable                      | Category              | Frequency | Percentage (%) | Mean    | Median | Std. Deviation | Variance | Range | Min  | Max  | Sum  |
|-------------------------------|-----------------------|-----------|----------------|---------|--------|----------------|----------|-------|------|------|------|
| School Type                   | Public                | 374       | 64.4           | 1.36    | 1.00   | 0.479          | 0.230    | 1     | 1    | 2    | 788  |
|                               | Private               | 207       | 35.6           |         |        |                |          |       |      |      |      |
| Gender                        | Male                  | 144       | 24.8           | 1.75    | 2.00   | 0.432          | 0.187    | 1     | 1    | 2    | 1018 |
|                               | Female                | 437       | 75.2           |         |        |                |          |       |      |      |      |
| Age of Respondents            | 16                    | 285       | 49.1           | 1.59    | 2.00   | 0.655          | 0.429    | 5     | 1    | 6    | 922  |
|                               | 17                    | 257       | 44.2           |         |        |                |          |       |      |      |      |
|                               | 18                    | 35        | 6.0            |         |        |                |          |       |      |      |      |
|                               | 19                    | 3         | 0.5            |         |        |                |          |       |      |      |      |
|                               | 20                    | 0         | 0              |         |        |                |          |       |      |      |      |
|                               | >20                   | 1         | 0.2            |         |        |                |          |       |      |      |      |
| Parents' Educational Background | Elementary School   | 74        | 12.7           | 2.90    | 3.00   | 1.057          | 1.118    | 5     | 1    | 6    | 1687 |
|                               | Junior High School   | 100       | 17.2           |         |        |                |          |       |      |      |      |
|                               | Senior High School   | 245       | 42.2           |         |        |                |          |       |      |      |      |
|                               | Bachelor's Degree    | 135       | 23.2           |         |        |                |          |       |      |      |      |
|                               | Master's Degree      | 24        | 4.1            |         |        |                |          |       |      |      |      |
|                               | Doctoral Degree      | 3         | 0.5            |         |        |                |          |       |      |      |      |
| Frequency of Internet Usage   | 1-3 hours a day       | 17        | 2.9            | 3.03    | 3.00   | 0.848          | 0.720    | 3     | 1    | 4    | 1759 |
|                               | 4-6 hours a day       | 150       | 25.8           |         |        |                |          |       |      |      |      |
|                               | 7-9 hours a day       | 214       | 36.8           |         |        |                |          |       |      |      |      |
|                               | >9 hours a day        | 200       | 34.4           |         |        |                |          |       |      |      |      |
| Gadget Used                   | Smartphone            | 337       | 58.0           | 2.66    | 1.00   | 1.964          | 3.859    | 4     | 1    | 5    | 1546 |
|                               | Tablet                | 1         | 0.2            |         |        |                |          |       |      |      |      |
|                               | Laptop                | 4         | 0.7            |         |        |                |          |       |      |      |      |
|                               | Desktop/ PC           | 0         | 0              |         |        |                |          |       |      |      |      |
|                               | More than one gadget  | 239       | 41.1           |         |        |                |          |       |      |      |      |
| Monthly Internet Budget       | Rp 10,000 - Rp 25,000 | 48        | 8.3            | 2.89    | 3.00   | 0.932          | 0.868    | 3     | 1    | 4    | 1678 |
|                               | Rp 26,000 - Rp 50,000 | 144       | 24.8           |         |        |                |          |       |      |      |      |
|                               | Rp 51,000 - Rp 75,000 | 214       | 36.8           |         |        |                |          |       |      |      |      |
|                               | >Rp 75,000            | 175       | 30.1           |         |        |                |          |       |      |      |      |
| Variable          | Item                                                                 | Mean Statistic | 95% Confidence Interval for Mean | Skewness Stat | Kurtosis Std |
|-------------------|----------------------------------------------------------------------|----------------|---------------------------------|---------------|--------------|
| Internet Skill    | I can download photos/videos on the internet                         | 4.29           | 0.036                           | -1.299        | 0.101        |
|                   | I know how to use shortcut keys when operating a computer/laptop (e.g., CTRL+C for Copy, CTRL+S for Save) | 3.85           | 0.040                           | -0.549        | 0.101        |
|                   | I can set the password on laptop/smartphone by myself (Fingerprint, Pattern, Face Unlock) | 4.44           | 0.032                           | -1.426        | 0.101        |
|                   | I can set the Wi-Fi connection with a laptop/smartphone by myself    | 4.26           | 0.036                           | -1.220        | 0.101        |
|                   | I find it difficult to search for the right keywords when browsing/googling | 2.49           | 0.045                           | 0.305         | 0.101        |
|                   | I find it difficult to search for the website that I have accessed   | 2.44           | 0.044                           | 0.249         | 0.101        |
|                   | I can edit images/photos/videos/music downloaded on the internet    | 3.73           | 0.041                           | -0.543        | 0.101        |
|                   | I can install applications on a smartphone/laptop by myself         | 4.41           | 0.031                           | -1.321        | 0.101        |
|                   | I can check how much internet data is used on smartphone applications | 4.27           | 0.038                           | -1.216        | 0.101        |
| Internet Attitude | Internet can reduce many difficulties in finishing assignments       | 4.20           | 0.038                           | -1.247        | 0.101        |
|                   | Internet brings us to a more advanced era                           | 4.30           | 0.031                           | -0.742        | 0.101        |
|                   | Life becomes easier and faster with the presence of internet         | 4.28           | 0.031                           | -0.814        | 0.101        |
|                   | Internet provides an easy, abundant, and enjoyable source of information | 4.34           | 0.030                           | -0.900        | 0.101        |
|                   | There are many changes in human life which have never been thought previously due to internet applications | 4.32           | 0.031                           | -0.969        | 0.101        |

(continued on next page)
| Variable                  | Item                                                                 | Mean  | 95% Confidence Interval for Mean | Skewness | Kurtosis |
|---------------------------|----------------------------------------------------------------------|-------|----------------------------------|----------|----------|
|                           |                                                                      | Std. Error | Lower Bound | Upper Bound | Var | Std. Dev. | Min | Max | Range | Stat | Std. Error | Stat | Std. Error |
| Computer Self-Efficacy    | I am confident in my capability to use computer/laptop to write letters, papers, and other assignments | 3.91  | 0.037 | 3.84 | 3.98 | 0.807 | 0.898 | 1 | 5 | 4 | -0.650 | 0.423 | 0.101 | 0.202 |
|                           | I am confident in my capability to install and uninstall various computer software | 3.45  | 0.041 | 3.37 | 3.53 | 0.954 | 0.977 | 1 | 5 | 4 | -0.176 | -0.263 | 0.101 | 0.202 |
|                           | I am fully confident in my capability to understand some terms related to computer hardware and software (e.g., CPU, hard disk, Operating System, MS. Office) | 3.27  | 0.040 | 3.19 | 3.34 | 0.933 | 0.966 | 1 | 5 | 4 | -0.194 | -0.154 | 0.101 | 0.202 |
|                           | I am confident in my capability to improve the skill in operating some computer software (video editing, Photoshop, Corel Draw, KineMaster, VivaVideo, Filmora) | 3.39  | 0.041 | 3.31 | 3.47 | 0.959 | 0.979 | 1 | 5 | 4 | -0.173 | -0.258 | 0.101 | 0.202 |
|                           | I am confident in my capability to solve troubleshooting (no response/hang/shut down) when using computer/laptop | 2.85  | 0.042 | 2.77 | 2.93 | 1.023 | 1.011 | 1 | 5 | 4 | 0.009 | -0.154 | 0.101 | 0.202 |
| Respect                  | I believe that creating any computer virus and sending any spam email are parts of cybercrime | 3.92  | 0.045 | 3.83 | 4.00 | 1.198 | 1.095 | 1 | 5 | 4 | -0.869 | 0.163 | 0.101 | 0.202 |
|                           | I understand that using technology can cause health and mental disorders such as internet addiction and stress | 4.07  | 0.038 | 4.00 | 4.15 | 0.841 | 0.917 | 1 | 5 | 4 | -0.928 | 0.761 | 0.101 | 0.202 |
|                           | I believe that hacking other people's emails/social media accounts, downloading music/film illegally, and plagiarizing other people's work without permission are unethical behavior | 4.41  | 0.036 | 4.34 | 4.48 | 0.743 | 0.862 | 1 | 5 | 4 | -1.565 | 2.241 | 0.101 | 0.202 |
|                           | I believe that everyone has to be responsible in everything they do on the internet (online) | 4.49  | 0.030 | 4.43 | 4.54 | 0.509 | 0.713 | 1 | 5 | 4 | -1.364 | 1.897 | 0.101 | 0.202 |
|                           | I believe that all internet users have the same right to give opinion and to express themselves | 4.29  | 0.032 | 4.23 | 4.36 | 0.604 | 0.777 | 1 | 5 | 4 | -1.113 | 1.710 | 0.101 | 0.202 |
|                           | Smartphone and computer make it easier for me to communicate with friends | 4.52  | 0.029 | 4.47 | 4.58 | 0.481 | 0.694 | 1 | 5 | 4 | -1.524 | 2.676 | 0.101 | 0.202 |

(continued on next page)
Table 2 (continued)

| Variable | Item                                                                 | Mean | 95% Confidence Interval for Mean | Skewness | Kurtosis |
|----------|----------------------------------------------------------------------|------|----------------------------------|----------|----------|
|          |                                                                       | Stat | Lower Bound | Upper Bound | Std. Dev. | Min | Max | Range | Stat | Std. Error | Stat | Std. Error |
| Educate  | Before deciding to buy something online, I always try to find out the information about the seller and the goods offered | 4.40 | 0.030 | 4.35 | 4.46 | 0.514 | 0.717 | 1 | 5 | 4 | -1.114 | 1.344 | 0.101 | 0.202 |
|          | I love shopping through e-commerce (Shopee, Lazada, Tokopedia, Bukalapak, etc) | 3.63 | 0.044 | 3.55 | 3.72 | 1.122 | 1.059 | 1 | 5 | 4 | -0.388 | -0.284 | 0.101 | 0.202 |
|          | I use social media to express my thoughts, feelings, and things that I experience | 3.33 | 0.040 | 3.25 | 3.40 | 0.913 | 0.955 | 1 | 5 | 4 | -0.047 | -0.024 | 0.101 | 0.202 |
|          | I like learning new things through internet/social media (Youtube, Instagram, Facebook, Twitter, etc) | 4.23 | 0.032 | 4.16 | 4.29 | 0.582 | 0.763 | 1 | 5 | 4 | -0.686 | 0.017 | 0.101 | 0.202 |
|          | I spend time on social media such as Facebook and Instagram to get information updates | 3.57 | 0.040 | 3.49 | 3.65 | 0.908 | 0.953 | 1 | 5 | 4 | -0.387 | 0.134 | 0.101 | 0.202 |
| Protect  | I regularly change the password on the smartphone/laptop to protect privacy | 2.94 | 0.044 | 2.85 | 3.03 | 1.148 | 1.072 | 1 | 5 | 4 | 0.041 | -0.477 | 0.101 | 0.202 |
|          | I always visit reliable and safe websites | 3.73 | 0.038 | 3.65 | 3.80 | 0.829 | 0.911 | 1 | 5 | 4 | -0.508 | 0.434 | 0.101 | 0.202 |
|          | I install anti-virus and internet protection on the computer/laptop | 3.71 | 0.040 | 3.63 | 3.79 | 0.934 | 0.967 | 1 | 5 | 4 | -0.460 | -0.100 | 0.101 | 0.202 |
|          | I always read privacy statement before installing new applications | 3.76 | 0.038 | 3.68 | 3.83 | 0.844 | 0.918 | 1 | 5 | 4 | -0.435 | 0.010 | 0.101 | 0.202 |
| Variable                     | Category                  | IS1  | IS2  | IS3  | IS4  | IS5  | IS6  | IS7  | IS8  | IS9  |
|------------------------------|---------------------------|------|------|------|------|------|------|------|------|------|
| **School Type**              | Public                    | 4.37 | 3.98 | 4.43 | 4.31 | 3.50 | 3.60 | 3.76 | 4.45 | 4.33 |
|                              | Private                   | 4.15 | 3.63 | 4.45 | 4.17 | 3.53 | 3.50 | 3.66 | 4.35 | 4.16 |
|                              | Average                   | 4.29 | 3.85 | 4.44 | 4.26 | 3.51 | 3.56 | 3.73 | 4.41 | 4.27 |
|                              | F Test                    | 9.13 | 7.58 | 0.10 | 3.45 | 0.13 | 1.08 | 1.42 | 2.63 | 4.45 |
|                              | Significant               | 0.00 | 0.00 | 0.75 | 0.06 | 0.72 | 0.30 | 0.23 | 0.11 | 0.04 |
| **Gender**                   | Male                      | 4.41 | 4.06 | 4.56 | 4.28 | 3.58 | 3.78 | 3.74 | 4.44 | 4.40 |
|                              | Female                    | 4.26 | 3.78 | 4.40 | 4.25 | 3.49 | 3.49 | 3.72 | 4.41 | 4.22 |
|                              | Rata-raita                | 4.29 | 3.85 | 4.44 | 4.26 | 3.51 | 3.56 | 3.73 | 4.41 | 4.27 |
|                              | F Test                    | 3.43 | 8.52 | 4.38 | 0.08 | 0.72 | 7.68 | 0.04 | 0.18 | 3.83 |
|                              | Significant               | 0.06 | 0.00 | 0.04 | 0.78 | 0.40 | 0.01 | 0.84 | 0.67 | 0.05 |
| **Age of Respondents**       | 16                        | 4.21 | 3.71 | 4.41 | 4.21 | 3.47 | 3.52 | 3.72 | 4.40 | 4.25 |
|                              | 17                        | 4.37 | 3.98 | 4.45 | 4.29 | 3.50 | 3.56 | 3.70 | 4.43 | 4.30 |
|                              | 18                        | 4.46 | 4.00 | 4.60 | 4.40 | 3.83 | 3.83 | 3.91 | 4.40 | 4.14 |
|                              | 19                        | 3.67 | 4.33 | 4.67 | 4.67 | 3.67 | 4.00 | 4.67 | 4.67 | 4.67 |
|                              | >20                       | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 3.00 | 4.00 | 5.00 |
|                              | Average                   | 4.29 | 3.85 | 4.44 | 4.26 | 3.51 | 3.56 | 3.73 | 4.41 | 4.27 |
|                              | F Test                    | 1.94 | 3.62 | 0.73 | 0.90 | 1.32 | 1.22 | 1.15 | 0.20 | 0.58 |
|                              | Significant               | 0.10 | 0.01 | 0.57 | 0.46 | 0.26 | 0.30 | 0.33 | 0.94 | 0.67 |
| **Parents’ Educational Background** | Elementary School     | 4.38 | 3.70 | 4.26 | 4.18 | 3.38 | 3.36 | 3.59 | 4.23 | 4.09 |
| **Frequency of Internet Usage** | 1-3 hours a day          | 4.12 | 3.76 | 4.35 | 3.88 | 3.12 | 3.12 | 3.71 | 4.35 | 3.94 |
|                              | 4-6 hours a day           | 4.20 | 3.69 | 4.34 | 4.19 | 3.51 | 3.54 | 3.63 | 4.29 | 4.26 |
|                              | 7-9 hours a day           | 4.24 | 3.92 | 4.41 | 4.23 | 3.43 | 3.52 | 3.74 | 4.40 | 4.21 |
|                              | >9 hours a day            | 4.44 | 3.91 | 4.56 | 4.37 | 3.64 | 3.67 | 3.79 | 4.53 | 4.36 |
|                              | Average                   | 4.29 | 3.85 | 4.44 | 4.26 | 3.51 | 3.56 | 3.73 | 4.41 | 4.27 |
|                              | F Test                    | 3.06 | 1.94 | 2.57 | 2.46 | 2.05 | 1.71 | 0.72 | 2.90 | 1.69 |
|                              | Significant               | 0.03 | 0.12 | 0.05 | 0.06 | 0.11 | 0.16 | 0.54 | 0.03 | 0.07 |
| **Gadget Used**              | Smartphone                | 4.16 | 3.64 | 4.38 | 4.15 | 3.45 | 3.41 | 3.63 | 4.36 | 4.18 |
|                              | Tablet                    | 5.00 | 4.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
|                              | Laptop                    | 4.75 | 4.25 | 4.50 | 4.25 | 2.50 | 3.75 | 4.50 | 4.75 | 4.25 |
|                              | Desktop/ PC               | 4.48 | 4.15 | 4.52 | 4.41 | 3.60 | 3.77 | 3.85 | 4.49 | 4.39 |
|                              | More than one gadget      | 4.29 | 3.85 | 4.44 | 4.26 | 3.51 | 3.56 | 3.73 | 4.41 | 4.27 |
|                              | Average                   | 7.21 | 14.28 | 1.68 | 4.59 | 1.56 | 7.61 | 3.68 | 1.84 | 2.72 |
|                              | F Test                    | 0.00 | 0.00 | 0.17 | 0.00 | 0.05 | 0.01 | 0.14 | 0.04 | 0.04 |
| **Monthly Internet Budget**  | Rp 10,000 - Rp 25,000     | 4.33 | 3.77 | 4.50 | 4.33 | 3.52 | 3.60 | 3.94 | 4.44 | 4.25 |
|                              | Rp 26,000 - Rp 50,000     | 4.22 | 3.86 | 4.40 | 4.22 | 3.48 | 3.60 | 3.56 | 4.35 | 4.17 |
|                              | Rp 51,000 - Rp 75,000     | 4.28 | 3.79 | 4.40 | 4.25 | 3.50 | 3.52 | 3.74 | 4.41 | 4.27 |
|                              | >Rp 75,000                | 4.36 | 3.94 | 4.51 | 4.29 | 3.54 | 3.58 | 3.79 | 4.47 | 4.35 |
|                              | Average                   | 4.29 | 3.85 | 4.44 | 4.26 | 3.51 | 3.56 | 3.73 | 4.41 | 4.27 |
|                              | F Test                    | 0.72 | 0.81 | 1.04 | 0.32 | 0.08 | 0.21 | 2.31 | 0.72 | 0.97 |
|                              | Significant               | 0.54 | 0.49 | 0.37 | 0.81 | 0.97 | 0.89 | 0.08 | 0.54 | 0.41 |

**Table 3**

Statistic descriptive on demographic characteristics of respondents and internet skill (n = 581).
### Table 4
Statistic descriptive on demographic characteristics of respondents and internet attitude (n = 581).

| Variable                       | Category          | IA1  | IA2  | IA3  | IA4  | IA5  |
|-------------------------------|------------------|------|------|------|------|------|
| **School Type**               | Public           | 4.24 | 4.33 | 4.34 | 4.41 | 4.36 |
|                               | Private          | 4.13 | 4.24 | 4.19 | 4.23 | 4.25 |
|                               | X                | 4.20 | 4.30 | 4.28 | 4.34 | 4.32 |
|                               | F Test           | 2.02 | 1.88 | 5.33 | 7.91 | 3.03 |
|                               | Significant      | 0.16 | 0.17 | 0.02 | 0.01 | 0.08 |
| **Gender**                    | Male             | 4.25 | 4.28 | 4.31 | 4.29 | 4.32 |
|                               | Female           | 4.19 | 4.30 | 4.27 | 4.36 | 4.32 |
|                               | X                | 4.20 | 4.30 | 4.28 | 4.34 | 4.32 |
|                               | F Test           | 0.50 | 0.14 | 0.28 | 1.02 | 0.00 |
|                               | Significant      | 0.48 | 0.71 | 0.60 | 0.31 | 0.98 |
| **Age of Respondents**        | 16               | 4.20 | 4.30 | 4.28 | 4.32 | 4.26 |
|                               | 17               | 4.21 | 4.30 | 4.31 | 4.39 | 4.39 |
|                               | 18               | 4.17 | 4.31 | 4.20 | 4.20 | 4.29 |
|                               | 19               | 3.67 | 3.33 | 3.33 | 4.33 | 3.67 |
|                               | >20              | -    | -    | -    | -    | -    |
|                               | X                | 4.20 | 4.30 | 4.28 | 4.34 | 4.32 |
|                               | F Test           | 0.46 | 1.35 | 1.63 | 0.96 | 1.69 |
|                               | Significant      | 0.77 | 0.25 | 0.16 | 0.43 | 0.15 |
| **Parents’ Educational Background** | Elementary School | 4.23 | 4.20 | 4.19 | 4.22 | 4.22 |
| **Frequency of Internet Usage** | 1-3 hours a day  | 4.06 | 3.94 | 3.82 | 4.06 | 4.35 |
|                               | 4-6 hours a day  | 4.15 | 4.19 | 4.17 | 4.25 | 4.23 |
|                               | 7-9 hours a day  | 4.17 | 4.29 | 4.25 | 4.29 | 4.27 |
|                               | >9 hours a day   | 4.29 | 4.42 | 4.44 | 4.51 | 4.44 |
|                               | Average          | 4.20 | 4.30 | 4.28 | 4.34 | 4.32 |
|                               | F Test           | 0.99 | 4.11 | 6.50 | 5.74 | 2.68 |
|                               | Significant      | 0.77 | 0.25 | 0.16 | 0.43 | 0.15 |
| **Gadget Used**               | Smartphone       | 4.15 | 4.26 | 4.25 | 4.32 | 4.29 |
|                               | Tablet           | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
|                               | Laptop           | 4.25 | 4.00 | 4.25 | 4.75 | 4.25 |
|                               | Desktop/ PC      | -    | -    | -    | -    | -    |
|                               | More than one gadget | 4.27 | 4.36 | 4.33 | 4.37 | 4.36 |
|                               | F Test           | 0.97 | 1.35 | 0.77 | 0.97 | 0.73 |
|                               | Significant      | 0.41 | 0.26 | 0.51 | 0.40 | 0.54 |
| **Monthly Internet Budget**   | Rp 10,000 - Rp 25,000 | 4.19 | 4.35 | 4.35 | 4.40 | 4.38 |
|                               | Rp 26,000 - Rp 50,000 | 4.28 | 4.26 | 4.30 | 4.35 | 4.26 |
|                               | Rp 51,000 - Rp 75,000 | 4.14 | 4.26 | 4.23 | 4.29 | 4.32 |
|                               | >Rp 75,000       | 4.22 | 4.35 | 4.31 | 4.39 | 4.35 |
|                               | X                | 4.20 | 4.30 | 4.28 | 4.34 | 4.32 |
|                               | F Test           | 0.73 | 0.71 | 0.58 | 0.77 | 0.56 |
|                               | Significant      | 0.55 | 0.55 | 0.63 | 0.51 | 0.64 |
| Variable                        | Category               | CSE1  | CSE2  | CSE3  | CSE4  | CSE5  |
|--------------------------------|------------------------|-------|-------|-------|-------|-------|
| School Type                    | Public                 | 3.99  | 3.50  | 3.35  | 3.45  | 2.89  |
|                                | Private                | 3.75  | 3.35  | 3.11  | 3.28  | 2.78  |
|                                | Average                | 3.91  | 3.45  | 3.27  | 3.39  | 2.85  |
|                                | F Test                 | 9.73  | 3.25  | 8.27  | 4.12  | 1.73  |
|                                | Significant            | 0.00  | 0.07  | 0.00  | 0.04  | 0.19  |
| Gender                         | Male                   | 3.95  | 3.74  | 3.56  | 3.64  | 3.22  |
|                                | Female                 | 3.89  | 3.35  | 3.17  | 3.31  | 2.73  |
|                                | Average                | 3.91  | 3.45  | 3.27  | 3.39  | 2.85  |
|                                | F Test                 | 0.43  | 18.25 | 17.82 | 12.54 | 25.76 |
|                                | Significant            | 0.51  | 0.00  | 0.00  | 0.00  | 0.00  |
| Age of Respondents             | 16                     | 3.83  | 3.36  | 3.16  | 3.37  | 2.79  |
|                                | 17                     | 4.00  | 3.51  | 3.33  | 3.40  | 2.88  |
|                                | 18                     | 3.89  | 3.57  | 3.49  | 3.40  | 3.14  |
|                                | 19                     | 4.00  | 4.00  | 4.00  | 4.33  | 3.33  |
|                                | 20                     | -     | -     | -     | -     | -     |
|                                | >20                    | 5.00  | 5.00  | 5.00  | 4.00  | 3.00  |
|                                | Average                | 3.91  | 3.45  | 3.27  | 3.39  | 2.85  |
|                                | F Test                 | 1.57  | 1.76  | 2.89  | 0.84  | 1.21  |
|                                | Significant            | 0.18  | 0.14  | 0.02  | 0.50  | 0.31  |
| Parents’ Educational Background| Elementary School      | 3.73  | 3.38  | 3.11  | 3.35  | 2.76  |
|                                | Junior High School     | 3.66  | 3.20  | 3.00  | 3.13  | 2.54  |
|                                | Senior High School     | 3.98  | 3.50  | 3.33  | 3.42  | 2.84  |
|                                | Bachelor’s Degree      | 4.01  | 3.52  | 3.41  | 3.51  | 3.10  |
|                                | Master’s Degree        | 4.08  | 3.54  | 3.25  | 3.46  | 3.04  |
|                                | Doctoral Degree        | 4.67  | 4.67  | 4.33  | 4.33  | 4.00  |
|                                | Average                | 3.91  | 3.45  | 3.27  | 3.39  | 2.85  |
|                                | F Test                 | 3.48  | 2.67  | 3.52  | 2.52  | 4.70  |
|                                | Significant            | 0.00  | 0.02  | 0.00  | 0.03  | 0.00  |
| Frequency of Internet Usage    | 1-3 hours a day         | 3.59  | 3.53  | 3.41  | 3.35  | 3.06  |
|                                | 4-6 hours a day         | 3.89  | 3.41  | 3.27  | 3.34  | 2.78  |
|                                | 7-9 hours a day         | 3.87  | 3.45  | 3.27  | 3.41  | 2.87  |
|                                | >9 hours a day          | 3.99  | 3.46  | 3.25  | 3.42  | 2.87  |
|                                | Average                | 3.91  | 3.45  | 3.27  | 3.39  | 2.85  |
|                                | F Test                 | 1.41  | 0.11  | 0.15  | 0.20  | 0.53  |
|                                | Significant            | 0.24  | 0.96  | 0.93  | 0.90  | 0.66  |
| Gadget Used                    | Smartphone             | 3.71  | 3.29  | 3.12  | 3.27  | 2.72  |
|                                | Tablet                 | 5.00  | 5.00  | 4.00  | 4.00  | 5.00  |
|                                | Laptop                 | 4.25  | 4.25  | 4.25  | 4.00  | 3.75  |
|                                | Desktop/ PC            | -     | -     | -     | -     | -     |
|                                | More than one gadget   | 4.18  | 3.65  | 3.44  | 3.55  | 3.01  |
|                                | Average                | 3.91  | 3.45  | 3.27  | 3.39  | 2.85  |
|                                | F Test                 | 14.42 | 8.43  | 6.88  | 4.69  | 6.43  |
|                                | Significant            | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  |
| Monthly Internet Budget        | Rp 10,000 - Rp 25,000   | 3.92  | 3.42  | 3.44  | 3.50  | 3.06  |
|                                | Rp 26,000 - Rp 50,000   | 3.88  | 3.31  | 3.21  | 3.31  | 2.76  |
|                                | Rp 51,000 - Rp 75,000   | 3.95  | 3.47  | 3.32  | 3.36  | 2.82  |
|                                | > Rp 75,000            | 3.89  | 3.53  | 3.20  | 3.46  | 2.91  |
|                                | Rata-rata              | 3.91  | 3.45  | 3.27  | 3.39  | 2.85  |
|                                | F Test                 | 0.25  | 1.41  | 1.15  | 0.89  | 1.32  |
|                                | Significant            | 0.86  | 0.24  | 0.33  | 0.44  | 0.27  |
Table 6
Statistic descriptive on demographic characteristics of respondents and digital citizenship (n = 581).

| Variable               | Category          | Respect | Educate | Protect |
|------------------------|-------------------|---------|---------|---------|
|                        |                   | R1      | R2      | R3      | R4      | R5      | R6      | E1      | E2      | E3      | E4      | E5      | P1      | P2      | P3      | P4      |
| School Type            | Public            | 4.00    | 4.13    | 4.51    | 4.56    | 4.30    | 4.56    | 4.45    | 3.70    | 3.34    | 4.26    | 3.63    | 2.89    | 3.76    | 3.79    | 3.76    |
|                        | Private           | 3.76    | 3.98    | 4.23    | 4.35    | 4.28    | 4.44    | 4.32    | 3.51    | 3.30    | 4.15    | 3.45    | 3.03    | 3.66    | 3.56    | 3.74    |
|                        | X                 | 3.92    | 4.07    | 4.41    | 4.49    | 4.29    | 4.52    | 4.40    | 3.63    | 3.33    | 4.23    | 3.57    | 2.94    | 3.73    | 3.71    | 3.76    |
|                        | F Test            | 6.29    | 3.34    | 14.27   | 11.33   | 0.16    | 3.99    | 4.62    | 4.59    | 0.23    | 2.79    | 5.03    | 2.15    | 1.70    | 7.70    | 0.10    |
|                        | Significant       | 0.01    | 0.07    | 0.00    | 0.00    | 0.69    | 0.05    | 0.03    | 0.03    | 0.63    | 0.10    | 0.03    | 0.14    | 0.19    | 0.01    | 0.75    |
| Gender                 | Male              | 4.09    | 3.90    | 4.32    | 4.38    | 4.28    | 4.46    | 4.30    | 3.40    | 3.33    | 4.32    | 3.68    | 2.88    | 3.85    | 3.86    | 3.67    |
|                        | Female            | 3.86    | 4.13    | 4.44    | 4.52    | 4.30    | 4.54    | 4.44    | 3.71    | 3.32    | 4.19    | 3.53    | 2.96    | 3.69    | 3.66    | 3.78    |
|                        | X                 | 3.92    | 4.07    | 4.41    | 4.49    | 4.29    | 4.52    | 4.40    | 3.63    | 3.33    | 4.23    | 3.57    | 2.94    | 3.73    | 3.71    | 3.76    |
|                        | F Test            | 4.91    | 7.31    | 2.18    | 4.05    | 0.02    | 1.59    | 4.20    | 9.20    | 0.00    | 2.92    | 2.68    | 0.59    | 3.29    | 4.76    | 1.53    |
|                        | Significant       | 0.03    | 0.01    | 0.14    | 0.04    | 0.89    | 0.21    | 0.04    | 0.00    | 0.99    | 0.09    | 0.10    | 0.44    | 0.07    | 0.03    | 0.22    |
| Age of Respondents     | 16                | 3.85    | 4.07    | 4.33    | 4.47    | 4.27    | 4.54    | 4.44    | 3.64    | 3.30    | 4.23    | 3.56    | 2.94    | 3.68    | 3.62    | 3.76    |
|                        | 17                | 4.00    | 4.08    | 4.53    | 4.53    | 4.33    | 4.51    | 4.40    | 3.64    | 3.34    | 4.23    | 3.56    | 2.89    | 3.74    | 3.81    | 3.71    |
|                        | 18                | 3.74    | 4.03    | 4.11    | 4.34    | 4.26    | 4.43    | 4.14    | 3.60    | 3.43    | 4.14    | 3.66    | 3.11    | 4.00    | 3.60    | 3.91    |
|                        | 19                | 4.67    | 4.00    | 4.67    | 4.33    | 3.67    | 4.67    | 4.67    | 3.67    | 3.33    | 4.67    | 3.67    | 4.33    | 3.67    | 4.33    | 4.67    |
|                        | >20               | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| Parents’ Educational Background | Elementary School   | 4.05    | 4.22    | 4.51    | 4.39    | 4.23    | 4.50    | 4.34    | 3.58    | 3.32    | 4.12    | 3.35    | 3.19    | 3.68    | 3.62    | 3.86    |
|                        | Junior High School | 3.64    | 4.12    | 4.29    | 4.54    | 4.26    | 4.50    | 4.35    | 3.48    | 3.41    | 4.14    | 3.53    | 3.05    | 3.66    | 3.47    | 3.86    |
|                        | Senior High School | 3.90    | 4.07    | 4.42    | 4.49    | 4.33    | 4.47    | 4.43    | 3.76    | 3.36    | 4.23    | 3.64    | 2.98    | 3.73    | 3.78    | 3.78    |
|                        | Bachelor's Degree | 4.06    | 3.92    | 4.41    | 4.48    | 4.27    | 4.59    | 4.37    | 3.56    | 3.28    | 4.30    | 3.55    | 2.76    | 3.79    | 3.77    | 3.60    |
|                        | Master's Degree   | 4.00    | 4.29    | 4.54    | 4.46    | 4.29    | 4.75    | 4.67    | 3.63    | 3.04    | 4.33    | 3.67    | 2.50    | 3.88    | 3.88    | 3.46    |
|                        | Doctoral Degree   | 4.00    | 4.33    | 4.33    | 4.67    | 4.67    | 4.67    | 5.00    | 3.67    | 2.33    | 4.67    | 4.67    | 2.33    | 3.33    | 4.33    | 5.00    |
|                        | X                 | 3.92    | 4.07    | 4.41    | 4.49    | 4.29    | 4.52    | 4.40    | 3.63    | 3.33    | 4.23    | 3.57    | 2.94    | 3.73    | 3.71    | 3.76    |
|                        | F Test            | 2.03    | 1.51    | 0.72    | 0.42    | 0.40    | 1.10    | 1.44    | 1.25    | 1.34    | 1.11    | 1.93    | 2.91    | 0.50    | 2.10    | 2.93    |
|                        | Significant       | 0.07    | 0.19    | 0.61    | 0.83    | 0.85    | 0.36    | 0.21    | 0.28    | 0.25    | 0.35    | 0.09    | 0.01    | 0.77    | 0.06    | 0.01    |

(continued on next page)
Table 6 (continued)

| Variable                      | Category       | Respect | Educate | Protect |
|-------------------------------|----------------|---------|---------|---------|
|                               |                | R1      | R2      | R3      | R4      | R5      | R6      | E1      | E2      | E3      | E4      | E5      | P1      | P2      | P3      | P4      |
| Frequency of Internet Usage   | 1-3 hours a day| 3.35    | 3.88    | 4.12    | 4.35    | 3.88    | 4.24    | 4.24    | 3.29    | 3.88    | 3.76    | 3.76    | 3.24    | 3.29    | 3.88    | 3.76    | 3.76    |
|                               | 4-6 hours a day| 3.90    | 4.06    | 4.25    | 4.51    | 4.29    | 4.45    | 4.37    | 3.51    | 3.26    | 4.11    | 3.38    | 3.28    | 2.83    | 3.67    | 3.78    | 3.78    |
|                               | 7-9 hours a day| 3.94    | 4.13    | 4.37    | 4.45    | 4.27    | 4.49    | 4.29    | 3.65    | 3.29    | 4.16    | 3.55    | 3.03    | 3.76    | 3.76    | 3.76    | 3.82    |
|                               | >9 hours a day  | 3.95    | 4.05    | 4.53    | 4.52    | 4.36    | 4.63    | 4.46    | 3.74    | 3.44    | 4.41    | 3.76    | 2.91    | 3.73    | 3.68    | 3.67    |
|                               | X              | 3.92    | 4.07    | 4.41    | 4.49    | 4.29    | 4.52    | 4.40    | 3.63    | 3.33    | 4.23    | 3.57    | 2.94    | 3.73    | 3.71    | 3.76    |
|                               | F Test         | 1.61    | 0.56    | 2.25    | 0.58    | 2.18    | 3.26    | 0.76    | 1.86    | 1.66    | 6.27    | 5.51    | 1.74    | 0.41    | 0.39    | 0.94    |
|                               | Significant    | 0.19    | 0.64    | 0.08    | 0.63    | 0.09    | 0.02    | 0.52    | 0.13    | 0.18    | 0.00    | 0.00    | 0.16    | 0.74    | 0.76    | 0.42    |
| Gadget Used                   | Smartphone     | 3.81    | 4.01    | 4.34    | 4.43    | 4.26    | 4.45    | 4.35    | 3.56    | 3.37    | 4.15    | 3.52    | 3.02    | 3.67    | 3.53    | 3.79    |
|                               | Tablet         | 5.00    | 5.00    | 5.00    | 5.00    | 5.00    | 5.00    | 5.00    | 5.00    | 5.00    | 5.00    | 5.00    | 2.00    | 5.00    | 5.00    | 5.00    |
|                               | Laptop         | 4.50    | 4.00    | 4.00    | 4.50    | 4.50    | 4.75    | 4.75    | 4.00    | 4.50    | 4.50    | 3.50    | 2.50    | 3.00    | 3.75    | 3.50    |
|                               | Desktop / PC   | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
|                               | More than one gadget | 4.05    | 4.16    | 4.52    | 4.56    | 4.33    | 4.62    | 4.47    | 3.72    | 3.23    | 4.32    | 3.64    | 2.85    | 3.82    | 3.95    | 3.70    |
|                               | X              | 3.92    | 4.07    | 4.41    | 4.49    | 4.29    | 4.52    | 4.40    | 3.63    | 3.33    | 4.23    | 3.57    | 2.94    | 3.73    | 3.71    | 3.76    |
|                               | F Test         | 2.99    | 1.55    | 2.53    | 1.74    | 0.83    | 3.18    | 1.76    | 1.83    | 4.08    | 2.69    | 1.50    | 1.70    | 2.71    | 9.63    | 1.16    |
|                               | Significant    | 0.03    | 0.20    | 0.06    | 0.16    | 0.48    | 0.02    | 0.15    | 0.14    | 0.01    | 0.05    | 0.21    | 0.17    | 0.04    | 0.00    | 0.33    |
| Monthly Internet Budget       | Rp 10.000 - Rp 25.000 | 3.71    | 4.02    | 4.31    | 4.48    | 4.38    | 4.60    | 4.29    | 3.54    | 3.54    | 4.40    | 3.52    | 3.33    | 3.65    | 3.73    | 3.92    |
|                               | Rp 26.000 - Rp 50.000 | 3.96    | 4.15    | 4.45    | 4.51    | 4.32    | 4.50    | 4.39    | 3.67    | 3.29    | 4.17    | 3.44    | 2.99    | 3.62    | 3.64    | 3.65    |
|                               | Rp 51.000 - Rp 75.000 | 3.85    | 4.10    | 4.37    | 4.48    | 4.19    | 4.51    | 4.38    | 3.64    | 3.29    | 4.17    | 3.55    | 2.84    | 3.73    | 3.72    | 3.73    |
|                               | >Rp 75.000     | 4.02    | 3.99    | 4.46    | 4.47    | 4.37    | 4.53    | 4.47    | 3.62    | 3.34    | 4.29    | 3.71    | 2.92    | 3.83    | 3.74    | 3.83    |
|                               | X              | 3.92    | 4.07    | 4.41    | 4.49    | 4.29    | 4.52    | 4.40    | 3.63    | 3.33    | 4.23    | 3.57    | 2.94    | 3.73    | 3.71    | 3.76    |
|                               | F Test         | 1.40    | 0.86    | 0.65    | 0.11    | 2.05    | 0.28    | 1.04    | 0.18    | 0.99    | 1.87    | 2.25    | 2.99    | 1.63    | 0.35    | 1.67    |
|                               | Significant    | 0.24    | 0.46    | 0.58    | 0.95    | 0.11    | 0.84    | 0.38    | 0.91    | 0.40    | 0.13    | 0.08    | 0.03    | 0.18    | 0.79    | 0.17    |
Table 7
Frequency distribution of the respondents’ responses to each item of indicator Variable (n = 581).

| P  | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | Average |
|----|-------------------|----------|---------|-------|---------------|---------|
| IS1| 9                 | 1.55     | 7       | 1.20  | 81            | 13.94   |
| IS2| 9                 | 1.55     | 39      | 6.71  | 152           | 26.16   |
| IS3| 4                 | 0.69     | 5       | 0.86  | 58            | 9.98    |
| IS4| 7                 | 1.20     | 17      | 2.93  | 75            | 12.91   |
| IS5| 25                | 4.30     | 71      | 12.22 | 194           | 33.39   |
| IS6| 16                | 2.75     | 76      | 13.08 | 190           | 32.70   |
| IS7| 15                | 2.58     | 46      | 7.92  | 161           | 27.71   |
| IS8| 4                 | 0.69     | 3       | 0.52  | 56            | 9.64    |
| IS9| 6                 | 1.03     | 25      | 4.30  | 75            | 12.91   |
| IA1| 11                | 1.89     | 18      | 3.10  | 77            | 13.25   |
| IA2| 1                 | 0.17     | 4       | 0.69  | 78            | 13.43   |
| IA3| 2                 | 0.34     | 4       | 0.69  | 78            | 13.43   |
| IA4| 1                 | 0.17     | 6       | 1.03  | 61            | 10.50   |
| IA5| 3                 | 0.52     | 3       | 0.52  | 70            | 12.05   |
| CSE1| 10              | 1.72     | 18      | 3.10  | 149           | 25.65   |
| CSE2| 17              | 2.93     | 64      | 11.02 | 233           | 40.10   |
| CSE3| 25              | 4.30     | 83      | 14.29 | 242           | 41.65   |
| CSE4| 19              | 3.27     | 72      | 12.39 | 233           | 40.10   |
| CSE5| 64              | 11.02    | 119     | 20.48 | 272           | 46.82   |
| R1 | 25               | 4.30     | 31      | 5.34  | 131           | 22.55   |
| R2 | 10               | 1.72     | 18      | 3.10  | 110           | 18.93   |
| R3 | 6                 | 1.03     | 17      | 2.93  | 58            | 9.98    |
| R4 | 2                 | 0.34     | 4       | 0.69  | 51            | 8.78    |
| R5 | 5                 | 0.86     | 5       | 0.86  | 70            | 12.05   |
| R6 | 2                 | 0.34     | 5       | 0.86  | 40            | 6.88    |
| E1 | 2                 | 0.34     | 4       | 0.69  | 55            | 9.47    |
| E2 | 24               | 4.13     | 37      | 6.37  | 216           | 37.18   |
| E3 | 21               | 3.61     | 63      | 10.84 | 278           | 47.85   |
| E4 | 1                 | 0.17     | 8       | 1.38  | 88            | 15.15   |
| E5 | 19               | 3.27     | 36      | 6.20  | 221           | 38.04   |
| P1 | 57               | 9.81     | 132     | 22.72 | 228           | 39.24   |
| P2 | 15               | 2.58     | 18      | 3.10  | 197           | 33.91   |
| P3 | 13               | 2.24     | 41      | 7.06  | 179           | 30.81   |
| P4 | 10               | 1.72     | 30      | 5.16  | 183           | 31.50   |
| Characteristic | Sub-Characteristic | Variable | Sub Variable | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | N  | Max. Score | Score | Mean | %  | Category |
|----------------|--------------------|----------|--------------|-------------------|----------|---------|-------|----------------|----|------------|-------|-------|----|----------|
| **School Type** | Public             | Internet Skills | 53           | 174              | 599      | 1160    | 1380  | 3366           | 16830 | 13738     | 4.08 | 81.63 | Very High |
|                |                    | Internet Self Efficacy | 13 | 18 | 195 | 748 | 896 | 1870 | 9350 | 6429 | 3.44 | 68.76 | High |
|                |                    | Digital Citizenship | 59 | 215 | 708 | 624 | 264 | 1870 | 9350 | 6429 | 3.44 | 68.76 | High |
|                |                    | Respect | 24 | 40 | 251 | 755 | 1174 | 2244 | 1120 | 9747 | 4.34 | 86.87 | Very High |
|                |                    | Educate | 30 | 86 | 541 | 637 | 576 | 1870 | 9350 | 7253 | 3.88 | 77.57 | High |
|                |                    | Protect | 52 | 143 | 501 | 525 | 275 | 1496 | 7480 | 5316 | 3.55 | 71.07 | High |
|                | Private            | Internet Skills | 42 | 115 | 443 | 546 | 717 | 1863 | 9315 | 7370 | 3.96 | 79.12 | High |
|                |                    | Internet Self Efficacy | 5 | 17 | 169 | 411 | 433 | 1035 | 5175 | 4355 | 4.21 | 84.15 | Very High |
|                |                    | Digital Citizenship | 76 | 141 | 421 | 238 | 159 | 1035 | 5175 | 3368 | 3.25 | 65.08 | High |
|                |                    | Respect | 26 | 40 | 209 | 383 | 584 | 1242 | 6210 | 5185 | 4.17 | 83.49 | Very High |
|                |                    | Educate | 37 | 62 | 317 | 330 | 289 | 1496 | 7480 | 5316 | 3.55 | 71.07 | High |
|                |                    | Protect | 43 | 78 | 286 | 266 | 155 | 828  | 4140 | 2896 | 3.50 | 69.95 | High |
| **Gender**     | Male               | Internet Skills | 18 | 59 | 256 | 358 | 605 | 1296 | 6480 | 5361 | 4.14 | 82.73 | Very High |
|                |                    | Internet Self Efficacy | 6 | 9 | 104 | 252 | 349 | 720  | 3600 | 3089 | 4.29 | 85.81 | Very High |
|                |                    | Digital Citizenship | 29 | 57 | 233 | 240 | 161 | 720  | 3600 | 2607 | 3.62 | 72.42 | High |
|                |                    | Respect | 9 | 19 | 145 | 275 | 416 | 864  | 4320 | 3662 | 4.24 | 87.79 | Very High |
|                |                    | Educate | 16 | 47 | 209 | 237 | 211 | 720  | 3600 | 2740 | 3.81 | 71.11 | High |
|                |                    | Protect | 20 | 57 | 206 | 163 | 130 | 576  | 2880 | 2054 | 3.57 | 71.32 | High |
|                | Female             | Internet Skills | 77 | 230 | 786 | 1348 | 1492 | 3933 | 19665 | 15747 | 4.00 | 80.08 | Very High |
|                |                    | Internet Self Efficacy | 12 | 26 | 260 | 963 | 980 | 2185 | 10925 | 9372 | 4.29 | 85.78 | Very High |
|                |                    | Digital Citizenship | 106 | 299 | 896 | 622 | 262 | 2185 | 10925 | 7190 | 3.29 | 65.81 | High |
|                |                    | Respect | 41 | 61 | 315 | 863 | 1342 | 2622 | 13110 | 11270 | 4.30 | 85.96 | Very High |
|                |                    | Educate | 51 | 101 | 649 | 730 | 654 | 2185 | 10925 | 8390 | 3.84 | 76.80 | High |
|                |                    | Protect | 75 | 164 | 581 | 628 | 300 | 1748 | 8740 | 6158 | 3.52 | 70.46 | High |
| **Age of Respondents** | 16 | Internet Skills | 60 | 150 | 530 | 817 | 999 | 2565 | 12825 | 10231 | 3.90 | 79.77 | High |
|                |                    | Internet Self Efficacy | 13 | 15 | 181 | 577 | 639 | 1425 | 7125 | 6089 | 4.27 | 85.46 | Very High |
|                |                    | Digital Citizenship | 66 | 195 | 591 | 388 | 185 | 1425 | 7125 | 4706 | 3.30 | 66.05 | High |
|                |                    | Respect | 27 | 40 | 233 | 580 | 830 | 1710 | 8550 | 7276 | 4.25 | 85.10 | Very High |
|                |                    | Educate | 38 | 68 | 420 | 467 | 432 | 1425 | 7125 | 5462 | 3.83 | 76.66 | High |
|                |                    | Protect | 49 | 113 | 399 | 373 | 206 | 1180 | 5700 | 3994 | 3.50 | 70.74 | High |
|                | 17 Internet Skills | 34 | 120 | 449 | 768 | 942 | 2313 | 11565 | 9403 | 4.07 | 81.31 | Very High |
|                |                    | Internet Self Efficacy | 4 | 17 | 142 | 521 | 601 | 1285 | 6425 | 5553 | 4.32 | 86.43 | Very High |
|                |                    | Digital Citizenship | 59 | 147 | 464 | 422 | 193 | 1285 | 6425 | 4398 | 3.42 | 68.45 | High |
|                |                    | Respect | 17 | 34 | 189 | 486 | 816 | 1542 | 7710 | 6676 | 4.33 | 86.59 | Very High |
|                |                    | Educate | 26 | 64 | 379 | 444 | 372 | 1285 | 6425 | 4927 | 3.83 | 76.68 | High |
|                |                    | Protect | 43 | 92 | 346 | 364 | 183 | 1028 | 5140 | 3636 | 3.54 | 70.74 | High |
|                | 18 Internet Skills | 1 | 10 | 57 | 112 | 135 | 315 | 1575 | 1315 | 4.17 | 83.49 | Very High |
|                |                    | Internet Self Efficacy | 1 | 3 | 33 | 55 | 83 | 175 | 875 | 741 | 4.23 | 84.69 | Very High |
|                |                    | Digital Citizenship | 10 | 14 | 67 | 47 | 37 | 175 | 875 | 612 | 3.50 | 69.94 | High |
|                |                    | Respect | 6 | 6 | 36 | 64 | 98 | 210 | 1050 | 872 | 4.15 | 83.05 | Very High |
|                |                    | Educate | 3 | 16 | 51 | 49 | 56 | 175 | 875 | 664 | 3.79 | 75.89 | High |

(continued on next page)
| Characteristic | Sub-Characteristic | Variable | Sub Variable | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | N | Max. Score | Score | Mean % | Category |
|---------------|-------------------|----------|--------------|------------------|----------|---------|-------|--------------|----|-------------|-------|--------|----------|
| 19            | Internet Skills   | Protect  | 3             | 16               | 39       | 50      | 32    | 140          | 700| 512         | 73.14 | High   |
|               | Internet Attitude | 0        | 0             | 5                | 8        | 14      | 27    | 135          | 117| 43.3        | 86.67 | Very High |
|               | Computer Self Efficacy | Respect  | 0             | 0                | 6        | 4       | 5     | 15            | 75 | 3.67        | 73.33 | High   |
|               |                    | Educate  | 0             | 0                | 4        | 7       | 4     | 15            | 75 | 4.00        | 80.00 | Very High |
|               |                    | Protect  | 0             | 0                | 3        | 3       | 6     | 12            | 60 | 5.25        | 85.00 | Very High |
|               | Digital Citizenship | Respect   | 0             | 0                | 1        | 1       | 7     | 9             | 45 | 4.67        | 93.33 | Very High |
|               |                    | Educate  | 0             | 0                | 0        | 0       | 6     | 6             | 30 | 6.00        | 100.00| Very High |
|               |                    | Protect  | 0             | 0                | 0        | 4       | 1     | 5             | 25 | 7.30        | 68.00 | High   |
| >20           | Internet Skills   | 0        | 0             | 1                | 1        | 7       | 9     | 45            | 42 | 4.67        | 93.33 | Very High |
|               | Internet Attitude | 0        | 0             | 0                | 2        | 3       | 5     | 25            | 23 | 4.60        | 92.00 | Very High |
|               | Computer Self Efficacy | Respect  | 0             | 0                | 1        | 1       | 3     | 5             | 25 | 4.40        | 88.00 | Very High |
|               |                    | Educate  | 0             | 0                | 0        | 0       | 6     | 6             | 30 | 5.00        | 100.00| Very High |
|               |                    | Protect  | 0             | 0                | 0        | 4       | 1     | 5             | 25 | 7.30        | 68.00 | High   |
|               | Digital Citizenship | Respect   | 0             | 0                | 1        | 1       | 7     | 9             | 45 | 4.67        | 93.33 | Very High |
|               |                    | Educate  | 0             | 0                | 0        | 0       | 6     | 6             | 30 | 6.00        | 100.00| Very High |
|               |                    | Protect  | 0             | 0                | 0        | 4       | 1     | 5             | 25 | 7.30        | 68.00 | High   |
| Parents' Educational Background | Internet Skills | Elementary School | 15             | 41               | 160      | 224    | 226  | 666           | 3303| 2603        | 78.17 | High   |
|               | Internet Attitude | 1        | 3             | 53               | 173      | 140    | 370  | 1850          | 1558| 42.1        | 84.22 | Very High |
|               | Computer Self Efficacy | Respect | 2             | 46               | 152      | 108    | 41   | 370           | 1850| 120.8       | 65.30 | High   |
|               |                    | Educate  | 8             | 17               | 132      | 118    | 95   | 370           | 1850| 138.5       | 74.86 | High   |
|               |                    | Protect  | 7             | 21               | 110      | 107    | 51   | 296           | 1480| 106.2       | 71.76 | High   |

(continued on next page)
**Table 8 (continued)**

| Characteristic | Sub-Characteristic | Variable | Sub Variable | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | N | Max. Score | Score | Mean | % | Category |
|----------------|-------------------|----------|--------------|------------------|---------|--------|-------|---------------|---|-----------|-------|------|---|----------|
| Internet Attitude | 1 | 0 | 10 | 42 | 67 | 120 | 600 | 534 | 4.45 | 89.00 | Very High |
| Computer Self Efficacy | 5 | 18 | 35 | 39 | 23 | 120 | 600 | 417 | 3.48 | 69.50 | High |
| Digital Citizenship | Respect | 3 | 5 | 14 | 33 | 89 | 144 | 720 | 632 | 4.39 | 87.78 | Very High |
| Educate | 3 | 9 | 33 | 31 | 44 | 120 | 600 | 464 | 3.87 | 77.33 | High |
| Protect | 7 | 13 | 30 | 24 | 22 | 96 | 480 | 329 | 3.43 | 68.54 | High |
| Doctoral Degree | Internet Skills | 0 | 0 | 0 | 9 | 18 | 27 | 135 | 126 | 4.67 | 93.33 | Very High |
| Internet Attitude | 0 | 0 | 3 | 1 | 11 | 15 | 75 | 68 | 4.53 | 90.67 | Very High |
| Computer Self Efficacy | 0 | 1 | 2 | 2 | 10 | 15 | 75 | 66 | 4.40 | 88.00 | Very High |
| Digital Citizenship | Respect | 0 | 1 | 1 | 5 | 11 | 18 | 90 | 80 | 4.44 | 88.89 | Very High |
| Educate | 3 | 0 | 0 | 2 | 10 | 15 | 75 | 61 | 4.07 | 81.33 | Very High |
| Protect | 1 | 2 | 2 | 1 | 6 | 12 | 60 | 45 | 3.75 | 75.00 | High |
| Frequency of Internet Usage | Internet Skills | 1 | 13 | 38 | 62 | 39 | 153 | 765 | 584 | 3.82 | 76.34 | High |
| Internet Attitude | 0 | 1 | 19 | 40 | 25 | 85 | 425 | 344 | 4.05 | 80.94 | Very High |
| Computer Self Efficacy | 2 | 7 | 47 | 14 | 15 | 85 | 425 | 288 | 3.97 | 67.76 | High |
| Digital Citizenship | Respect | 1 | 3 | 29 | 34 | 35 | 102 | 510 | 405 | 3.97 | 79.41 | High |
| Educate | 4 | 5 | 31 | 30 | 185 | 85 | 425 | 302 | 3.55 | 71.06 | High |
| Protect | 1 | 5 | 22 | 27 | 13 | 68 | 340 | 250 | 3.68 | 73.53 | High |
| 4-6 hours a day | Internet Skills | 23 | 72 | 324 | 445 | 486 | 1350 | 6750 | 5349 | 3.96 | 79.24 | High |
| Internet Attitude | 5 | 8 | 118 | 320 | 299 | 750 | 3750 | 3150 | 4.20 | 84.00 | Very High |
| Computer Self Efficacy | 27 | 103 | 306 | 218 | 96 | 750 | 3750 | 2503 | 3.34 | 66.75 | High |
| Digital Citizenship | Respect | 12 | 22 | 132 | 288 | 446 | 900 | 4500 | 3834 | 4.26 | 85.20 | Very High |
| Educate | 21 | 39 | 263 | 227 | 200 | 750 | 3750 | 2796 | 3.73 | 74.56 | High |
| Protect | 27 | 59 | 209 | 205 | 100 | 600 | 3000 | 2062 | 3.49 | 69.73 | High |
| 7-9 hours a day | Internet Skills | 36 | 113 | 357 | 656 | 750 | 1912 | 9560 | 7707 | 4.03 | 80.62 | Very High |
| Internet Attitude | 8 | 12 | 132 | 468 | 450 | 1070 | 5350 | 4550 | 4.25 | 85.05 | Very High |
| Computer Self Efficacy | 46 | 123 | 430 | 326 | 145 | 1070 | 5350 | 3611 | 3.37 | 67.50 | High |
| Digital Citizenship | Respect | 18 | 28 | 156 | 464 | 618 | 1284 | 6420 | 5488 | 4.27 | 85.48 | Very High |
| Educate | 19 | 59 | 315 | 393 | 284 | 1070 | 5350 | 4074 | 3.81 | 76.15 | High |
| Protect | 29 | 69 | 278 | 327 | 153 | 856 | 4280 | 3074 | 3.59 | 71.82 | High |
| >9 hours a day | Internet Skills | 42 | 94 | 375 | 649 | 1021 | 2181 | 10905 | 9056 | 4.15 | 83.04 | Very High |
| Internet Attitude | 5 | 14 | 95 | 331 | 555 | 1000 | 5000 | 4417 | 4.42 | 88.34 | Very High |
| Computer Self Efficacy | 60 | 123 | 346 | 304 | 167 | 1000 | 5000 | 3395 | 3.40 | 67.90 | High |
| Digital Citizenship | Respect | 19 | 27 | 143 | 352 | 659 | 1200 | 6000 | 5205 | 4.34 | 86.75 | Very High |
| Educate | 23 | 45 | 249 | 317 | 366 | 1000 | 5000 | 3958 | 3.96 | 79.16 | High |
| Protect | 38 | 88 | 278 | 322 | 164 | 800 | 4000 | 2796 | 3.50 | 69.90 | High |
| Gadget Used | Smartphone | 63 | 219 | 696 | 950 | 1105 | 3033 | 15165 | 11914 | 3.93 | 78.56 | High |
| Internet Attitude | 9 | 25 | 233 | 680 | 738 | 1685 | 8425 | 7168 | 4.25 | 85.08 | Very High |
| Computer Self Efficacy | 100 | 260 | 677 | 461 | 187 | 1685 | 8425 | 5430 | 3.22 | 64.45 | High |
| Digital Citizenship | Respect | 30 | 61 | 314 | 654 | 963 | 2022 | 10110 | 8522 | 4.22 | 84.32 | Very High |
| Educate | 43 | 90 | 531 | 533 | 488 | 1685 | 8425 | 6383 | 3.79 | 75.82 | Very High |
| Protect | 57 | 129 | 483 | 436 | 243 | 1348 | 6740 | 4723 | 3.50 | 70.07 | High |
| Tablet | Internet Skills | 0 | 0 | 0 | 1 | 8 | 9 | 45 | 44 | 4.89 | 97.87 | Very High |
| Characteristic | Sub-Characteristic | Variable | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | N | Max. Score | Score | Mean | % | Category |
|---------------|-------------------|----------|-------------------|----------|---------|-------|----------------|---|------------|-------|------|---|----------|
| Internet Attitude | Factor 1 | 0 | 0 | 0 | 0 | 5 | 5 | 25 | 25 | 5.00 | 100.00 | Very High |
| | Factor 2 | 0 | 0 | 0 | 2 | 3 | 5 | 25 | 23 | 4.60 | 92.00 | Very High |
| Computer Self Efficacy | Factor 1 | 0 | 0 | 0 | 0 | 6 | 6 | 30 | 30 | 5.00 | 100.00 | Very High |
| | Factor 2 | 0 | 0 | 0 | 5 | 5 | 25 | 25 | 5.00 | 100.00 | Very High |
| Digital Citizenship | Respect | 0 | 0 | 0 | 0 | 3 | 4 | 20 | 17 | 4.25 | 85.00 | Very High |
| | Educate | 0 | 1 | 0 | 0 | 8 | 9 | 20 | 100 | 86 | 4.30 | 86.00 | Very High |
| | Protect | 0 | 0 | 0 | 0 | 5 | 0 | 20 | 100 | 85 | 4.25 | 85.00 | Very High |
| Laptop | Internet Skills | 1 | 1 | 6 | 11 | 17 | 36 | 180 | 150 | 4.17 | 83.33 | Very High |
| | Internet Attitude | 0 | 1 | 3 | 8 | 9 | 20 | 100 | 86 | 4.30 | 86.00 | Very High |
| | Computer Self Efficacy | 0 | 0 | 3 | 12 | 5 | 20 | 100 | 82 | 4.10 | 82.00 | Very High |
| | Digital Citizenship | Respect | 0 | 1 | 1 | 10 | 12 | 24 | 120 | 105 | 4.38 | 87.50 | Very High |
| | Educate | 0 | 0 | 5 | 5 | 10 | 20 | 100 | 85 | 4.25 | 85.00 | Very High |
| | Protect | 2 | 0 | 8 | 5 | 1 | 16 | 80 | 51 | 3.19 | 63.75 | High |
| More than one gadget | Internet Skills | 38 | 74 | 405 | 856 | 1120 | 2493 | 12465 | 10425 | 4.18 | 83.63 | Very High |
| | Internet Attitude | 9 | 10 | 128 | 471 | 577 | 1195 | 5975 | 5182 | 4.34 | 86.73 | Very High |
| | Computer Self Efficacy | 35 | 96 | 449 | 387 | 328 | 1195 | 5975 | 4262 | 3.57 | 71.33 | High |
| | Digital Citizenship | Respect | 20 | 18 | 145 | 474 | 777 | 1434 | 7170 | 6272 | 3.47 | 87.48 | Very High |
| | Educate | 24 | 58 | 322 | 429 | 362 | 1195 | 5975 | 4632 | 3.88 | 77.52 | Very High |
| | Protect | 36 | 91 | 296 | 350 | 183 | 956 | 4780 | 3421 | 3.58 | 71.57 | Very High |
| Monthly Internet Budget | Rp 10,000 - Rp 25,000 | Internet Skills | 12 | 24 | 81 | 117 | 198 | 432 | 2160 | 1761 | 4.08 | 81.53 | Very High |
| | Internet Attitude | 3 | 1 | 27 | 91 | 118 | 240 | 1200 | 1040 | 4.33 | 86.67 | Very High |
| | Computer Self Efficacy | 18 | 26 | 74 | 70 | 52 | 240 | 1200 | 832 | 3.47 | 69.33 | High |
| | Digital Citizenship | Respect | 9 | 11 | 42 | 63 | 163 | 288 | 1440 | 1224 | 4.25 | 85.00 | Very High |
| | Educate | 12 | 7 | 68 | 69 | 84 | 240 | 1200 | 926 | 3.86 | 77.17 | High |
| | Protect | 5 | 19 | 58 | 65 | 45 | 192 | 960 | 702 | 3.66 | 73.13 | High |
| | Rp 26,000 - Rp 50,000 | Internet Skills | 18 | 72 | 293 | 443 | 470 | 1296 | 6480 | 5163 | 3.98 | 79.68 | High |
| | Internet Attitude | 1 | 8 | 79 | 325 | 307 | 720 | 3600 | 3089 | 4.29 | 85.81 | Very High |
| | Computer Self Efficacy | 31 | 95 | 307 | 205 | 82 | 720 | 3600 | 2372 | 3.29 | 65.89 | High |
| | Digital Citizenship | Respect | 7 | 15 | 110 | 297 | 433 | 864 | 4320 | 3728 | 4.31 | 86.30 | Very High |
| | Educate | 13 | 32 | 226 | 230 | 189 | 720 | 3600 | 2730 | 3.79 | 75.83 | High |
| | Protect | 27 | 46 | 217 | 199 | 87 | 576 | 2880 | 2001 | 3.47 | 69.48 | High |
| | Rp 51,000 - Rp 75,000 | Internet Skills | 28 | 111 | 376 | 695 | 716 | 1926 | 9630 | 7738 | 4.02 | 80.35 | Very High |
| | Internet Attitude | 6 | 14 | 143 | 452 | 455 | 1070 | 5350 | 4546 | 4.25 | 84.97 | Very High |
| | Computer Self Efficacy | 44 | 121 | 418 | 355 | 132 | 1070 | 5350 | 3620 | 3.38 | 67.66 | High |
| | Digital Citizenship | Respect | 17 | 29 | 179 | 448 | 611 | 1284 | 6420 | 5459 | 4.25 | 85.03 | Very High |
| | Educate | 20 | 58 | 325 | 373 | 294 | 1070 | 5350 | 4073 | 3.81 | 76.13 | High |
| | Protect | 31 | 97 | 278 | 308 | 142 | 856 | 4280 | 3001 | 3.51 | 70.12 | High |
| | Rp > 75,000 | Internet Skills | 37 | 82 | 292 | 451 | 713 | 1575 | 7875 | 6446 | 4.09 | 81.85 | Very High |
| | Internet Attitude | 8 | 12 | 115 | 291 | 449 | 875 | 4375 | 3786 | 4.33 | 86.54 | Very High |
| | Computer Self Efficacy | 42 | 114 | 330 | 232 | 157 | 875 | 4375 | 2973 | 3.40 | 67.95 | High |
| | Digital Citizenship | Respect | 17 | 25 | 129 | 328 | 551 | 1050 | 5250 | 4521 | 4.31 | 86.11 | Very High |
| | Educate | 22 | 51 | 229 | 275 | 298 | 875 | 4375 | 3401 | 3.89 | 77.74 | High |
| | Protect | 32 | 59 | 234 | 219 | 156 | 700 | 3500 | 2508 | 3.58 | 71.66 | High |
2. Experimental Design, Materials and Methods

The context in this study is digital citizenship competence of senior high school students. The research samples came from 12 schools located in Central Java, Indonesia which were selected by probability sampling, in which the samples were allowed to choose based on random convenient sample to be used in research [4]. Because the pandemic of Covid-19 forced schools to close, the data collection was carried out through an online questionnaire. The questionnaires were distributed to respondents according to the criteria determined by the researcher using the Google Form platform. This was carried out with the aim of being able to measure the digital citizenship readiness of students in accordance with the Nine Elements parameter of digital citizenship including protection (protect), education (educate), and respect that was developed by Al-Zahrani [5] based on the assumption of Ribble [6]. Jones and Mitchell [8] also developed Digital Citizenship Scale (DCS) based on the criteria of online respect and online civic engagement with the total of 11 question items using 5-point scale from “not all like me” to “very much like me”. In this study, the point scale was the same as the DCS by Al-Zahrani [5] with 5-point Likert Scale (5 = Strongly Agree, 1 = Strongly Disagree). In addition, the question items for the variables of internet attitude and computer self-efficacy were also based on the study by Al-Zahrani [5]. As for the variable of internet skills, it was adapted from van Deursen et al. [7].

A total of 581 responses were received by the researcher, and all of them met the criteria for the next stage in the form of statistical analysis. In the aspect of demographic characteristics of the students, the descriptive statistical test was carried out with analytical technique using one-way ANOVA to determine the relationship and the influence of these demographic factors on the variables of internet skills, internet attitudes, computer self-efficacy, and the basic components that form the digital citizenship. Meanwhile, the analysis of the reliability and validity of the instrument was carried out using the Structural Equation Model (SEM) analysis technique with the SmartPLS version 3 program.

On the demographic characteristics of the respondents, measurements were made regarding the aspects used as parameters for the level of digital citizenship of the students. Individual demographic data is a potential source of data related to the students’ knowledge, attitude, skills, and practices in utilizing digital technology within their daily lives which were analyzed using frequency and percentage. One-Way ANOVA was carried out to determine the relationship between different experiences and expertise in using computers and how they utilize it to facilitate activities in their daily lives. In Table 8, the category level of the respondents is described in each of the tested variables. The majority of the distribution of responses fell under the high category in which the variable of internet attitude obtained 54.22%, that of internet skills obtained 56.28% which was included in the high category, and the percentage of frequency distribution of the respondents’ responses was 54.56% for the variable of protect, 53.18% for computer self-efficacy and 51.64% for educate, thus the three of them belonged to the medium category. Meanwhile, the variable of respect fell under the very high category with 57.31%. Therefore, the respondents had a very high level of respect in utilizing computers and accessing internet within their daily lives.

Ethics Statement

Universitas Muhammadiyah Surakarta has responsibility for this project. The study process has been approved and adheres to the ethical guidelines and regulations the organisation in charge. The study used a tix box in the online consent form for underage participants to discuss the study with their parents and understand the study procedure, risks, and benefits to allow their children to be included. The study was conducted with the agreement and the volunteer of school managers and local administrators. All respondents were informed relate to the research before conducting the survey. The online survey was written anonymously to guarantee the confidentiality of their personal data.
Declaration of Competing Interest

The authors declare that they have not known competing financial interests or personal relationships, which have, or could be perceived to have, influenced the work reported in this article.

CRediT Author Statement

Wibowo Heru Prasetyo: Conceptualization, Methodology, Investigation, Writing – review & editing; Noor Banu Mahadir Naidu: Conceptualization, Resources, Writing – review & editing; Beti Indah Sari: Formal analysis, Validation, Writing – original draft; Rochman Hadi Mustofa: Formal analysis, Resources, Validation; Nailyssa Rahmawati: Investigation, Data curation; Gilang Pambudi Adi Wijaya: Investigation, Resources; Obby Taufik Hidayat: Investigation, Resources.

Acknowledgment

We would like to thank all the students who participated in this study. This research was supported by a grant from Universitas Muhammadiyah Surakarta. Code: 65/A.3-III/FKIP/I/2021.

Supplementary Materials

Supplementary material associated with this article can be found in the online version at doi:10.1016/j.dib.2021.107569.

References

[1] M. Choi, D. Cristol, B. Gimbert, Teachers as digital citizens: The influence of individual backgrounds, internet use and psychological characteristics on teachers’ levels of digital citizenship, Comput. Educ. 121 (2018) 143–161, doi:10.1016/j.compedu.2018.03.005.
[2] E. Hargittai, Digital Na(t)ives? Variation in internet skills and uses among members of the “net Generation, Sociol. Inq. 80 (1) (2010) 92–113, doi:10.1111/j.1475-682X.2009.00317.x.
[3] X. Wang, W. Xing, Exploring the influence of parental involvement and socioeconomic status on teen digital citizenship: a path modeling approach, Educ. Technol. Soc. 21 (1) (2018) 186–199.
[4] D.M. Mertens, Research and Evaluation in Education and Psychology: Integrating Diversity with Quantitative, Qualitative, and Mixed Methods, 4th ed., SAGE Publications, 2015.
[5] A. Al-Zahrani, Toward digital citizenship: examining factors affecting participation and involvement in the internet society among higher education students, Int Educ Stud 8 (12) (2015) 203, doi:10.5539/ies.v8n12p203.
[6] M. Ribble, Digital Citizenship in Schools: Nine Elements all Students Should Know, 5th ed., International Society for Technology in Education, 2015.
[7] A.J.A.M. van Deursen, E.J. Helsper, R. Eynon, Development and validation of the internet skills scale (ISS), Inf. Commun. Soc. 19 (6) (2016) 804–823, doi:10.1080/1369118X.2015.1078834.
[8] L.M. Jones, K.J. Mitchell, Defining and measuring youth digital citizenship, New Media Soc. 18 (9) (2016) 2063–2079, doi:10.1177/1461444815577797.