



THE 21ST CENTURY LITERACIES OF THE COLLEGE OF EDUCATION SOPHOMORE STUDENTS UNDER THE NEW NORMAL: A BASIS FOR CURRICULUM INNOVATION

Reynaldo A. Cabual, PhD/ Maria Blesilda H. Agapito, MPM, JD

Article DOI: <https://doi.org/10.36713/epra19406>

DOI No: 10.36713/epra19406

ABSTRACT

This study investigated the 21st-century literacies of College of Education sophomore students under the new normal as a basis for curriculum innovation. Using a descriptive research design with mixed quantitative-qualitative methods, data were gathered from 136 purposively selected students enrolled in PROFED 7/EDUC 7 during the second semester of academic year 2021-2022. The study examined eight domains of 21st-century literacy: media, digital, environmental, informational, global, visual, emotional, and financial literacy. Major findings revealed that the majority of respondents were from the Bachelor of Secondary Education program (47.06%), predominantly female (78.68%), and aged 20 years old. Most students came from families with monthly incomes below ₱10,957 (64.71%) and were public school graduates (75%). Students demonstrated strong global literacy (weighted mean 3.37) and financial literacy (weighted mean 3.16). Correlation analysis revealed a significant negative relationship between age and global literacy ($r = -0.180$, $p = 0.036$), suggesting younger students exhibit higher global awareness. No other significant correlations were found between demographic variables and literacy skills. The study concluded that while students generally possess adequate 21st-century literacy skills, there are areas requiring enhancement, particularly in advanced digital manipulation and comprehensive communication abilities. The findings highlight the need for targeted interventions to address socioeconomic challenges and gender imbalances across programs. Recommendations include integrating advanced digital skills training across curricula, developing targeted programs for enhancing global literacy among older students, strengthening financial literacy education, and establishing support systems for students from low-income backgrounds. Additionally, the study suggests implementing technology-enhanced learning environments and creating opportunities for cross-cultural and global learning experiences.

KEYWORDS: 21st-century literacies, teacher education, digital literacy, global literacy, financial literacy, curriculum innovation, new normal education, student demographics, educational technology, higher education

I. INTRODUCTION

As the world under globalization challenged by the pandemic brought about new ways in how people live, where countries have become more interconnected to each other and the world becomes a global village, it is important for college students to learn about new literacies. The research focuses on identifying their acquired new literacies and the benefits these bring in their lives. It also looks at how they can teach themselves and others about these new literacies.

Globalization has made our world smaller and more complex. The birth of new literacies that are needed to be successful in this globalized world are very different from those that were needed just a few years ago. College students are now required to have skills in written communication, visual literacy, digital literacy, critical thinking, collaborative learning and problem solving skills to name some of them. Male and female college students have different needs for these new literacies as well as different opportunities for developing them due to different factors as the world has become increasingly interconnected brought by the pandemic and globalization.



The era of globalization has not only increased the number of people that are involved in the global economy but also their level of interaction with each other. As a result, there is a need for college students to become literate in multiple ways. College students need to be literate in multiple languages, cultures, and perspectives. They need to be literate in the traditional sense as well as digitally literate. They need to be able to read and write but they also need to know how to use technology responsibly and effectively. As the present generation has changed the ways how students are educated particularly during this pandemic times this VUCA world challenges schools in how these new literacies that are not purely academic in nature are integrated in the curriculum. Students need to be able to understand and communicate in different languages, cultures, and contexts. They also need to be able to navigate the internet with ease and have basic digital literacy skills.

In our efforts to bring about a better world, raising better human race is inevitable. There must be baseline data that will supply the needed information on how to deal with the students' level of acquired new literacies and perhaps provide innovative ways to promote the new literacies to the youth. There must be an analysis of the new literacies of education students under the new normal. This research mainly focused on these new literacies and how are these impacting the learning process, their social lives and career prospects.

Statement of the Problem

This research delved on the 21st century literacies of the College of Education sophomore college students.

Specifically, the study sought to answer the following:

1. How may the socio-demographic profile of the respondents be described in terms of:
 - 1.1 Course;
 - 1.2 Age;
 - 1.3 Sex;
 - 1.4 Monthly family income; and
 - 1.5 Secondary school graduated from?
2. How may the 21st-century literacies of the respondents be described in terms of
 - 2.1 Media Literacy;
 - 2.2 Digital Literacy;
 - 2.3 Environmental Literacy;
 - 2.4 Informational Literacy;
 - 2.5 Global Literacy;
 - 2.6 Visual Literacy;
 - 2.7 Emotional Literacy;
 - 2.8 Financial literacy
3. Is there a significant relationship between the socio-demographic profiles of the respondents and their 21st-century literacies?
4. What may be suggested to enrich the integrated 21st literacies in the teacher education curriculum?

II. METHODS AND PROCEDURES

This study employed a descriptive research design to analyze and interpret data gathered from College of Education sophomore students. The researchers used purposive sampling, specifically selecting students enrolled in PROFED 7/EDUC 7 for the second semester of the academic year 2021-2022. A mixed quantitative-qualitative approach was adopted to investigate how students from different programs utilized 21st-century literacies in constructing their identities.

To assess students' 21st-century literacies, the researchers developed a set of 35 questions. These questions covered various types of literacy, with indicators and responses identified for each. The questions were randomized to minimize potential biases in students' self-identification of their 21st-century literacies. The questionnaires were distributed to respondents via Google Forms, with participants given one week to complete the survey.

For data analysis, the researchers planned to use Spearman's rho correlation test to examine the relationship between the socio-demographic profiles of the respondents and their 21st-century literacies. Additionally, a test of difference



was proposed to determine if there were significant differences in 21st-century literacies among students when grouped according to their profile variables, particularly focusing on gender differences.

This comprehensive methodology allowed for an in-depth examination of 21st-century literacies among the target population, combining quantitative measures of literacy levels with qualitative insights into how these literacies are used and understood by the students. The use of digital tools for data collection also aligned with the study's focus on 21st-century skills.

III. RESULTS AND DISCUSSION

This section presents a comprehensive analysis of 21st-century literacies among College of Education sophomore students under the new normal conditions. This analysis examines the interplay between students' socio-demographic characteristics and their self-perceived literacy competencies across multiple dimensions.

1. Socio-demographic Profile

The study involved 136 respondents from three programs: BSED (47.06%), BSIE (34.56%), and BEED (18.38%). Most respondents were 20 years old (56.62%), followed by 19-year-olds (32.35%). A significant gender disparity was observed, with females comprising 78.68% of respondents. The majority (64.71%) came from families earning less than ₱10,957 monthly, and 75% were public school graduates.

2. 21st Century Literacies Assessment

21 st Century Literacies	Weighted Mean	Verbal Description
a) Media Literacy (Weighted Mean: 2.83)	2.83	True of Me
b) Digital Literacy (Weighted Mean: 3.14)	3.14	True of Me
c) Environmental Literacy (Weighted Mean: 2.98)	2.98	True of Me
d) Informational Literacy (Weighted Mean: 3.20)	3.20	True of Me
e) Global Literacy (Weighted Mean: 3.37)	3.37	Very True of Me
f) Visual Literacy (Weighted Mean: 3.12)	3.12	True of Me
g) Emotional Literacy (Weighted Mean: 3.12)	3.12	True of Me
h) Financial Literacy (Weighted Mean: 3.16)	3.16	True of Me
OVERALL WEIGHTED MEAN	3.11	True of Me

Based on the provided data, the study on 21st-century literacies among College of Education sophomore students reveals a comprehensive picture of their self-perceived competencies across various literacy domains. The overall weighted mean of 3.11, described as "True of Me," indicates that students generally perceive themselves as competent in navigating the modern information landscape.

Global Literacy emerges as the strongest area, with a weighted mean of 3.37. This high score aligns with research by Goren and Yemini (2021), who emphasize the growing importance of global citizenship education in fostering global awareness among students. The strong performance in this area suggests that educational efforts to promote global understanding are having a positive impact.

Informational Literacy follows closely with a weighted mean of 3.20. This finding is supported by recent work from Julien et al. (2020), highlighting the critical importance of information literacy skills in the digital age. Students' confidence in this area indicates they feel well-equipped to evaluate and use information effectively, a crucial skill in today's information-rich environment.

Financial Literacy shows a positive result with a weighted mean of 3.16. This aligns with research by Lusardi and Mitchell (2021), which underscores the impact of financial literacy on long-term financial well-being. The students' perceived competence in this area is encouraging, given the importance of financial skills for young adults.

Digital Literacy and Visual Literacy both score 3.12, indicating students feel confident in their ability to navigate digital environments and interpret visual information. This finding is consistent with research by Knobel and



Lankshear (2022), who advocate for the integration of digital literacy skills across various subjects. However, as Hobbs (2021) points out, there's a need to develop critical visual literacy skills beyond mere interpretation.

Emotional Literacy also scores 3.12, suggesting students feel equipped to handle emotional aspects of communication. This aligns with recent emphasis on emotional intelligence in educational settings, as discussed by Hodzic et al. (2021) in their research on emotional intelligence in global contexts.

Environmental Literacy shows room for improvement with a score of 2.98. These findings echo the research by Ardoin et al. (2020), who highlights the need for more experiential and action-oriented environmental education to enhance students' engagement with environmental issues.

Media Literacy receives the lowest score at 2.83, indicating an area for potential improvement. This aligns with Buckingham's (2021) argument for a more comprehensive approach to media literacy education that goes beyond basic digital skills to include critical analysis and content creation.

These findings provide valuable insights for curriculum development and educational policy. They suggest a need for targeted interventions in areas like media and environmental literacy, while maintaining the strong performance in global and informational literacies. As the World Economic Forum (2023) report emphasizes, these 21st-century skills are increasingly crucial across various sectors of the economy, underscoring the importance of continued focus on developing these competencies in higher education settings.

While students demonstrate a good overall grasp of 21st-century literacies, there are specific areas that require targeted educational interventions. The findings suggest a need for curriculum enhancements, particularly in media and environmental literacies, while maintaining the strong performance in global and informational literacies. Future research could explore the relationship between self-perceived competencies and actual performance in these literacy domains.

3. Correlational Analysis

Test of the significant relationship between the socio-demographic profiles of the respondents and their 21st-century literacies

		Digital	Media	Environmental	Informational	Global	Visual	Emotional	Financial
Course	Pearson Correlation	-.090	.000	-.128	.042	.042	-.017	.006	-.139
	Sig. (2-tailed)	.299	1.000	.137	.627	.627	.847	.949	.107
	N	136	136	136	136	136	136	136	136
SEX	Pearson Correlation	.129	.032	.120	-.020	.035	.041	.094	.102
	Sig. (2-tailed)	.134	.711	.163	.816	.688	.635	.277	.238
	N	136	136	136	136	136	136	136	136
Type of Secondary School	Pearson Correlation	-.087	-.128	-.115	-.095	-.145	-.058	-.039	-.127
	Sig. (2-tailed)	.312	.138	.183	.273	.093	.499	.654	.140
	N	136	136	136	136	136	136	136	136
Age	Pearson Correlation	.012	-.007	.008	-.083	-.180*	-.082	-.141	-.038
	Sig. (2-tailed)	.889	.932	.922	.340	.036	.345	.103	.663
	N	136	136	136	136	136	136	136	136
Monthly Income	Pearson Correlation	-.066	.006	-.042	.022	-.012	.034	-.091	-.039
	Sig. (2-tailed)	.442	.943	.630	.799	.894	.697	.293	.654
	N	136	136	136	136	136	136	136	136
YrLevel	Pearson Correlation	-.023	.031	-.109	-.145	-.152	.088	-.063	-.101
	Sig. (2-tailed)	.788	.723	.208	.092	.077	.309	.464	.241
	N	136	136	136	136	136	136	136	136

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).



The only significant correlation found was between age and global literacy ($r = -0.180$, $p = 0.036$), indicating that younger students tend to demonstrate higher global awareness. Other demographic variables showed no significant correlations with literacy skills, suggesting these competencies develop relatively independently of socio-demographic factors.

IV. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

1. The study reveals significant insights into the 21st-century literacies of College of Education sophomore students. Most respondents are enrolled in the Bachelor of Secondary Education program, comprising 47.06% of the sample, with the majority being 20 years old. Female students dominate the population at 78.68%, reflecting a continuing trend in education programs. The economic background of students shows that most come from families earning below ₱10,957 monthly, while 75% graduated from public secondary schools.
2. Students demonstrated varying levels of competency across different literacy domains. Global literacy emerged as their strongest area, with a weighted mean of 3.37, particularly excelling in empathy and respect for authority. Financial literacy also showed positive results (weighted mean 3.16), with students displaying good understanding of savings and budgeting principles. Digital and media literacy skills, while moderately strong (weighted means 3.14 and 2.83 respectively), revealed some gaps in advanced digital manipulation abilities.
3. The correlational analysis revealed only one significant relationship: a negative correlation between age and global literacy ($r = -0.180$, $p = 0.036$), suggesting that younger students tend to demonstrate higher global awareness. Interestingly, other demographic variables showed no significant correlations with literacy skills, indicating that these competencies develop relatively independently of socio-demographic factors.

Recommendations

1. Curriculum development may focus on integrating more advanced digital skills training across all courses, particularly in data and visual manipulation. Second, targeted programs should be developed to enhance global literacy among older students, while maintaining the strong performance of younger students in this area.
2. Institutional support mechanisms need strengthening, particularly for students from low-income backgrounds. This includes enhanced financial aid programs and academic resources. Given the strong female representation in education programs, mentorship initiatives should be established to leverage this demographic advantage. Additionally, partnerships with public schools should be developed to strengthen the preparation of future students.
3. Teaching strategies may embrace more visual and multimedia-based learning approaches, capitalizing on students' existing digital literacy strengths. Collaborative projects that enhance global awareness and cross-cultural understanding should be incorporated into the curriculum. Technology-enhanced learning environments should be utilized to support the development of multiple literacy skills simultaneously.
4. For future research directions, longitudinal studies may be conducted to track literacy development throughout the college years. The effectiveness of various interventions in enhancing specific literacy skills needs investigation, as does the relationship between literacy skills and academic performance.
5. Policy recommendations include developing frameworks that support equitable access to digital resources and technology, creating comprehensive guidelines for integrating 21st-century literacies across the curriculum, and establishing assessment frameworks for monitoring literacy development.
6. Finally, professional development initiatives may focus on training faculty in implementing technology-enhanced learning strategies, organizing workshops for developing students' advanced digital skills, and creating opportunities for cross-cultural and global learning experiences. These comprehensive recommendations aim to enhance the development of 21st-century literacies among education students, better preparing them for successful careers in an increasingly complex and interconnected world.

REFERENCES

1. Anderson, K., & Lee, S. (2023). *Digital natives and global awareness: Understanding generational differences in cross-cultural competencies*. *Journal of Global Education*, 45(2), 112-128.
2. Ardoin, N., Bowers, A., & Gaillard, E. (2020). *Environmental education in the digital age: Challenges and opportunities for experiential learning*. *Environmental Education Research*, 26(1), 1-15.
3. Avgerinou, M. D., & Pettersson, R. (2020). *Visual literacy in the digital age: From theory to practice*. *Journal of Visual Literacy*, 39(1), 1-19.



4. Baker, R., Thompson, J., & Wilson, K. (2022). Public education investment and higher education access: A longitudinal study. *Education Policy Analysis Archives*, 30(45), 1-24.
5. Beghetto, R. A., & Kaufman, J. C. (2022). Cultivating creativity in 21st-century education. *Educational Psychologist*, 57(2), 215-232.
6. Bird, A., & Mendenhall, M. E. (2020). Global leadership in the 21st century: Understanding cultural contexts. *Journal of World Business*, 55(3), 101-114.
7. Brown, K., Davis, R., & Smith, J. (2023). Equity in digital education: Bridging the technological divide. *Digital Education Review*, 43, 78-95.
8. Buckingham, D. (2021). Media literacy in the digital age: Critical perspectives and pedagogical approaches. *Media, Culture & Society*, 43(5), 780-799.
9. Chavla, L., & Derr, V. (2021). The development of environmental activism: The role of environmental education. *Environmental Education Research*, 27(3), 401-419.
10. Eaton, S. E., & Edino, R. I. (2022). Academic integrity in the digital age: Challenges and solutions. *Journal of Academic Ethics*, 20(1), 1-15.
11. Engel, L. C., Maxwell, C., & Yemini, M. (2022). The globalization of education: Policy, pedagogy, and curriculum. *Comparative Education Review*, 66(3), 456-478.
12. Gallardo-Echenique, E., Marqués-Molíás, L., & Bullen, M. (2021). Digital competence in higher education: Students' self-assessment and learning patterns. *Computers & Education*, 168, 104174.
13. Getha-Taylor, H., Holmes, M. H., & Mok, J. (2020). Collaborating for public value in the digital age. *Public Administration Review*, 80(4), 590-600.
14. Goren, H., & Yemini, M. (2021). Global citizenship education redefined: A systematic review of empirical studies on global citizenship education. *International Journal of Educational Research*, 82, 170-183.
15. Hodzic, S., Ripoll, P., & Bernal, C. (2021). Emotional intelligence in global contexts: Cross-cultural perspectives. *International Journal of Environmental Research and Public Health*, 18(3), 1124.
16. Julien, H., Gross, M., & Latham, D. (2020). Information literacy in the digital age: An evidence-based approach. *Library & Information Science Research*, 42(4), 101088.
17. Knobel, M., & Lankshear, C. (2022). Digital literacy practices in education: New perspectives and pedagogical implications. *Reading Research Quarterly*, 57(1), 95-113.
18. Lau, W. W., & Yuen, A. H. (2021). Information literacy development in the digital age: A systematic review. *Computers & Education*, 165, 104120.