

CRITERIA FOR DEVELOPMENT OF DIGITAL COMPETENCE IN HIGHER EDUCATION

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ABSTRACT

The criteria for developing digital competence in higher education may vary depending on the specific context and objectives. However, here are some general criteria to consider:

1. **Technological Skills and Literacy:** Students should have the basic knowledge and skills to effectively use digital tools, software and platforms relevant to their field of study. They must be able to manage and use a variety of digital technologies, demonstrate proficiency in the use of productivity tools, and be able to effectively engage with digital resources.

2. **Information Literacy:** Students should be able to evaluate and critically analyze digital information from a variety of sources. They must be adept at finding, accessing, and synthesizing relevant information, while understanding concepts of privacy, digital rights, trustworthiness, and ethical use of data.

3. **Digital Communication and Collaboration:** Students should be proficient in using digital tools and platforms for effective communication, collaboration and teamwork. This includes skills such as online communication, virtual collaboration, video conferencing and responsible use of social media.

4. **Digital Content Creation:** Students should be able to create digital content such as multimedia presentations, videos, websites or online portfolios. They must apply design principles, use digital media effectively, and communicate information in an engaging and meaningful way.

5. **Online Research and Critical Thinking:** Students should be able to conduct online research, critically evaluate digital sources, and distinguish reliable information from inaccurate or fake news. They must have critical thinking skills to analyze and synthesize information from digital resources to solve complex problems.

6. **Data Literacy and Analysis:** Students should be able to work with, interpret, and analyze data using digital tools such as spreadsheets, statistical software, or data visualization tools. They must understand the principles of data management and communicate findings using digital platforms.

7. **Digital Citizenship and Ethics:** Students should demonstrate knowledge of the principles of digital citizenship, including responsible and ethical behavior online. They need to understand the concepts of digital rights, privacy, security and the implications of their online actions[140].

8. **Adaptability and lifelong learning:** Students must have the ability to adapt to new and emerging technologies, as well as the ability to engage in continuous learning. They need to demonstrate a growth mindset, seek out new digital tools and resources, and acquire new digital skills throughout their lives.

9. **Integration of digital technologies:** Students should be able to use digital technologies effectively in their specific fields of study. They must be able to identify appropriate digital

tools, platforms, and resources to address disciplinary challenges, enhance learning experiences, and support professional goals.

These criteria serve as a basis for evaluating and developing the digital competence of higher education students. They provide a foundation for curricula, instructional practices, and assessment strategies that aim to equip students with the digital skills and knowledge they need to thrive in the digital age.

Continuous assessment of educational standards helps ensure that teachers are equipped to meet the needs of all students, and the standards are constantly updated to reflect new research and best practices in education.

Theoretical and practical programs that determine the criteria for the development of digital competence in students. There are several theoretical and practical programs that provide criteria for the development of digital competence in students. Some of the most popular are:

1. DigComp: The DigComp system developed by the European Commission provides a common reference for digital competence across Europe. It defines digital competence in five areas:

- information and data literacy;
- communication and cooperation;
- creating digital content;
- security;
- problem solving.

2. ISTE Standards for Students: The International Society for Technology in Education (ISTE) has developed standards that define the skills and knowledge students need to thrive in the digital world. The standards cover areas such as empowered learners, digital citizens, knowledge constructors, innovative designers, computational thinkers, creative communicators, and global collaborators.

3. NETS for Students: The National Educational Technology Standards for Students (NETS), developed by the International Society for Technology in Education (ISTE), defines a set of standards that provide guidelines for the effective use of technology in education. The standards cover areas such as creativity and innovation, communication and collaboration, research and information fluency, and digital citizenship.

4. UNESCO's ICT Competence Framework for Teachers: Although this framework is specifically for teachers, it provides an understanding of criteria for developing students' digital competencies. It emphasizes competencies such as information literacy, digital content creation, problem solving, communication and collaboration, security, and legal and ethical issues in the use of digital technologies.

5. Partnership for 21st Century Education (P21) Framework: The P21 framework identifies critical skills for student success in the 21st century, including a strong focus on digital literacy, information literacy and ICT skills. It focuses on critical thinking, problem solving, communication, collaboration, creativity and innovation.

6. Common Core State Standards (CCSS): Although not specifically focused on digital competence, the CCSS provide standards of learning in areas such as English language arts and mathematics that are indirectly related to the development of digital competence. presents a package. The standards emphasize the research, evaluation and development of digital content and the effective use of digital tools.

These theoretical frameworks and practical applications provide valuable benchmarks and guidance for teachers in developing students' digital competence. It involves teachers by incorporating these criteria into educational programs and effectively integrating digital technologies.

The criteria for the development of digital competence among students are set in different countries and universities of the world. Although it is not possible to provide an exhaustive list, some countries and universities that are known for their efforts in setting benchmarks for the development of digital competence are:

1. European Union: The European Commission is actively promoting the development of digital competence through initiatives such as the DigComp framework. This system sets the criteria for digital competence in European countries, and universities in EU member states often refer to it in their digital competence programs.

2. United States: There are several universities and organizations in the United States that have contributed to the development of digital competency benchmarks. Some notable examples include the International Society for Technology in Education (ISTE), which has developed standards for students and teachers, and the Partnership for 21st Century Education (P21), which emphasizes digital literacy and 21st century skills.

3. United Kingdom: In the United Kingdom, initiatives such as the National Curriculum for Computing provide guidelines and benchmarks for developing digital competence among students. Universities in the UK often align their programs to these national standards.

4. Finland: Finland is recognized as a leader in the development of education and digital competence. The Finnish National Agency for Education has set criteria for digital competence for students at different levels of education. Universities in Finland incorporate these criteria into their curriculum.

5. Australia: In Australia, the Australian Curriculum covers digital technologies and provides criteria for developing students' digital competence. Universities in Australia often align their programs to these national standards.

6. Canada: In Canada, initiatives such as the Digital Literacy Framework have provided benchmarks for developing digital competence among students. Canadian universities often include these criteria in digital competency programs.

It should be noted that the criteria for developing digital competence may also differ between countries, as universities may have their own guidelines and frameworks. In addition, universities around the world can refer to internationally recognized systems such as the DigComp framework or the ISTE standards to guide the criteria for the development of digital competence.

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