

## THE MODEL OF TEACHER–STUDENT COLLABORATION IN DEVELOPING DIGITAL HYGIENE CULTURE IN HIGHER EDUCATION INSTITUTIONS

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**Abstract:** The article examines an innovative collaboration-based model aimed at developing digital hygiene culture among students in higher education institutions. The study highlights that effective digital hygiene is not limited to technical skills but also includes awareness of online safety, ethical digital behavior, information filtering, and responsible use of digital resources. By integrating interactive pedagogical strategies, joint teacher–student digital tasks, peer assessment, and reflective learning practices, the proposed model strengthens students' ability to critically evaluate digital risks and apply safe online practices in their academic and personal activities. The research also emphasizes the importance of institutional support, teacher digital competence, and learner engagement in creating a sustainable digital hygiene culture. The findings suggest that a structured and collaborative approach significantly enhances students' digital well-being, cybersecurity literacy, and digital responsibility.

**Keywords:** Digital hygiene; digital safety; higher education; teacher–student collaboration; digital competence; online ethics; cybersecurity literacy; responsible digital behavior; digital culture; educational innovation.

### INTRODUCTION

In the era of rapid digital transformation, the educational environment of higher education institutions is becoming increasingly dependent on online platforms, electronic resources, and virtual communication tools. As students' academic and social activities migrate to digital spaces, the need to cultivate a strong culture of digital hygiene has gained critical importance. Digital hygiene encompasses a set of competencies related to secure online behavior, protection of personal data, recognition of digital risks, responsible consumption of information, and ethical interaction within the digital ecosystem. However, studies indicate that many university students lack adequate knowledge and skills to navigate digital environments safely, exposing them to cyber threats, misinformation, digital addiction, and violations of academic integrity. Teachers play a central role in shaping students' digital practices, yet traditional instruction alone is insufficient to build sustainable digital hygiene habits. In this context, a collaborative model involving both teachers and students becomes essential. Collaborative approaches foster shared responsibility, mutual learning, and active engagement, enabling learners to internalize digital hygiene principles more effectively. Such cooperation encourages students to participate in digital monitoring, jointly evaluate online behaviors, co-create digital safety guidelines, and develop critical thinking in real digital settings. Despite the growing attention to digital literacy and cybersecurity in educational research, the concept of *digital hygiene culture* remains relatively underexplored. Existing studies often focus primarily on technical aspects, while the behavioral, ethical, and pedagogical dimensions are less systematically addressed. Therefore, developing a comprehensive teacher–student collaboration model offers an innovative perspective for enhancing digital responsibility across higher education settings. This study aims to conceptualize and justify an integrative model of collaboration between teachers and students that promotes the development of digital hygiene culture in higher education

institutions. The model is grounded in modern pedagogical approaches, including interactive learning, peer collaboration, reflective practices, and digital risk awareness training. By examining the key components and mechanisms of this model, the article contributes to the broader discourse on digital well-being and provides practical recommendations for universities seeking to strengthen students' safe and responsible digital behavior.

## MAIN BODY

Digital hygiene culture in higher education encompasses students' ability to practice safe, ethical, and responsible behavior in digital environments. It includes protection of personal data, recognition of online risks, academic integrity in digital spaces, and critical evaluation of digital content. Despite the growing integration of digital tools in universities, many students still demonstrate limited awareness of cybersecurity, information filtering, and digital ethics, which calls for a structured pedagogical approach. Teacher–student collaboration represents an effective mechanism for strengthening digital hygiene competencies. Within this model, teachers act as mentors guiding learners through real digital risks, while students actively contribute their technological experience. Joint activities such as project-based digital tasks, case analyses, and development of online behavior guidelines promote shared responsibility and co-learning.

The model consists of three core elements:

1. **Pedagogical component** – interactive methods, scenario tasks, and digital simulations that connect theoretical concepts with practical behavior;
2. **Technological component** – the use of LMS systems, cybersecurity tools, and digital platforms to improve hands-on digital safety skills;
3. **Behavioral–ethical component** – fostering responsible digital communication, academic honesty, and respect for digital rules. Implementation relies on short digital hygiene modules, peer mentoring, teacher-led digital audits, and gamified learning. These mechanisms help students recognize digital threats, improve self-regulation online, and develop sustainable safe digital habits. As a result, the collaboration model enhances cybersecurity awareness, ethical online behavior, critical digital thinking, and overall digital well-being, contributing to the formation of a stable digital hygiene culture in higher education settings.

## CONCLUSION

The rapid expansion of digital technologies in higher education has significantly transformed the way students learn, communicate, and engage with academic resources. In such a dynamic environment, developing a strong digital hygiene culture is no longer an optional skill but a fundamental requirement for students' academic success, personal well-being, and future professional competence. The findings of this study demonstrate that digital hygiene cannot be effectively nurtured through traditional didactic instruction alone; instead, it requires an integrative and collaborative pedagogical approach that actively engages both teachers and students. The research confirms that teacher–student collaboration serves as a powerful mechanism for building sustainable digital hygiene habits. When teachers assume the roles of facilitators and mentors, and when students participate as active contributors and co-creators of digital practices, the learning process becomes more meaningful, interactive, and practically relevant. Such partnership-based learning encourages students to reflect on their own digital behaviors, understand online risks, and apply safe strategies in real digital contexts. At the same

time, teachers benefit from better understanding students' digital needs, challenges, and behavioral patterns, allowing them to design more responsive and effective digital safety interventions.

The proposed collaboration model integrates pedagogical, technological, and ethical-behavioral components, all of which work together to strengthen students' digital responsibility. Interactive teaching methods, digital case studies, peer mentoring, and digital audits create an environment where students learn through authentic practice rather than abstract theory. This approach not only improves cybersecurity awareness but also deepens critical thinking, ethical decision-making, and reflective digital behavior. The involvement of both teachers and students in developing digital rules, evaluating online platforms, and monitoring digital risks fosters a culture of shared responsibility and mutual accountability. Moreover, the model contributes to developing long-term digital well-being by encouraging balanced digital use, prevention of harmful online habits, and promotion of morally grounded digital communication. As universities continue to digitalize their educational processes, such a model becomes essential for ensuring academic integrity, protecting students' digital identities, and promoting safe online learning environments.

In conclusion, strengthening digital hygiene culture in higher education requires systematic, collaborative, and pedagogically sound strategies. The teacher–student collaboration model presented in this study offers a comprehensive and innovative framework that can be adapted across diverse academic settings. Its implementation holds significant potential for enhancing students' digital literacy, online safety awareness, ethical digital behavior, and overall preparedness for navigating the complexities of the modern digital world. Future research may explore the model's effectiveness across different disciplines, cultural contexts, and levels of digital competence, further contributing to the refinement of digital hygiene education in higher education institutions.

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