The Online First-Year Experience: Transition, Belonging and Dropout in Greek Higher Education

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Abstract: The transition into higher education and the first-year experience are particularly important, as support from the early weeks may help students persist in their studies. Although the on-campus first-year experience has been researched internationally for more than fifty years, the online first-year experience remains under-researched. This matters because online and distance education (DE) has expanded during the COVID-19 pandemic, when students around the world moved to online platforms to continue their education, and many institutions have since developed online provision and with increasing attention to student satisfaction and retention. In Greek higher education, the available evidence comes mainly from one public university and indicate high dropout rates, particularly among undergraduates. To the author's knowledge, no published research has specifically examined the first-year experience of students enrolled in online and DE programmes offered by private colleges providing transnational higher education in Greece. This paper addresses this gap through a narrative review of the international and Greek literature on dropout in online and DE. The reviewed literature suggests that dropout rates are often higher than in campus-based study and are indicated early in the programme. Contributing factors relate to course and programme design, student characteristics, institutional support, socioeconomic circumstances, work and family obligations, technology, and social interaction and belonging. Drawing on this literature, the paper proposes a preliminary first-year student retention framework for online and DE with four domains: course design, student development, teaching practices and institutional actions. The framework includes onboarding and orientation to online study, courses that address diverse learning needs, training for teaching staff in online environments, and advising and proactive outreach during the first year. It provides a starting point for institutions to plan coordinated support. The framework was developed through a literature review and has not yet been empirically tested, its contribution to student retention require further evaluation by experts and practitioners.

Keywords: Online First-Year Experience, Online and Distance Education, Student Dropout, Student Retention, Retention Framework, Greek Higher Education.

1. Introduction

The first-year transition is an important concern for universities and colleges, because a smooth passage into higher education helps students to persist and graduate. However, not all students complete their studies. University dropout refers to cases where students discontinue their studies for various reasons and ultimately do not graduate (Tinto, 1975; Trusty et al, 2025; Valencia-Arias et al, 2026). International research also uses the terms permanent withdrawal, transfer or migration, degree non-completion and program withdrawal. Although dropout has been researched for many decades, it remains a multifactorial issue that affects not only the students' academic and personal identity but also has consequences on higher education institutions, and countries' socioeconomic growth (Acevedo, 2023). Therefore, enhancing persistence and progression within higher education institutions has become a strategic policy concern and a key focus of academic research (Valencia-Arias et al, 2026) as, a high rate of student retention is often regarded as an indicator of institutional quality (Acevedo, 2023).

In 2015, the United Nations adopted the 2030 Agenda for Sustainable Development, which sets out 17 Sustainable Development Goals (SDGs) with the aim of improving quality of life and promoting sustainable development worldwide (United Nations General Assembly, 2015). Regarding education, SDG 4 was adopted by the UN General Assembly to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" by 2030. With regards to this goal, the Global Education Monitoring (GEM) Report (UNESCO, 2026) records massive growth in post-secondary education with an increase of 161% in enrolment rates since 2000. In tertiary education specifically, the gross enrolment ratio more than doubled over the same period, from 19% to 44%.

Participation in online and DE is also growing. Even before the COVID-19 pandemic, open and DE accounted for more than 15% of tertiary students in some higher education systems (UNESCO, 2026). Recent national figures are considerably higher, for example in Brazil, half of all tertiary students now study through distance programmes, and in Mexico the students in distance, virtual, open and hybrid programmes more than doubled in a decade, reaching 20% in 2023 (UNESCO, 2026). However, online and DE has specific demands and requires skills from the students in using digital tools effectively, managing time and organizing learning independently,

with digital literacy and self-regulation playing an important role in their persistence (Bağrıacık Yılmaz and Karataş, 2022). In this context, dropout in online and DE programmes is generally reported to be higher than in campus-based studies (Trautwein et al, 2026), and it is affected by different factors, such as employment, family commitments, lack of time and feelings of isolation (Shaikh and Asif, 2022; Xavier, Meneses and Fiuza, 2022). Historically, classic models of student attrition were developed for traditional, on-campus students (Tinto, 1975), while later models were proposed specifically for non-traditional and distance learners (Rovai, 2003; Stephen, 2023).

Research on interventions to improve retention has mainly concerned campus-based students (Dermentzi and Pavlakou, 2026; Reddy, Naidoo and Ross, 2025). However, there is little evidence on how to support students through the first year of online and distance study. In Greece, undergraduate study by online and distance learning is offered by the HOU and by private colleges in partnership with foreign universities. Research at the HOU has examined the causes of dropout and ways of supporting students (Lionarakis et al, 2019; Vangelis et al, 2025; Xanthopoulou and Stavrakakis, 2019) but comparatively little research has addressed other Greek institutions. To the author's knowledge, no institution-wide framework covering the whole first year of online and distance study has yet been proposed for the Greek context. This paper therefore focuses on dropout in the first year of online and distance study and through a literature review, it proposes a framework for strengthening transition, belonging, engagement, accessibility and continuity throughout the first year.

2. Context of Student Dropout

Student retention and dropout are two terms presented in literature as two major issues that globally affect many aspects of academic and institutional sustainability (Dermentzi and Pavlakou, 2025, 2026). The concern about student increasing dropout rates has driven researchers to identify key factors influencing student persistence and success and identify ways, models and interventions to create a solid environment for the growth of higher education (Siddiqui et al, 2025).

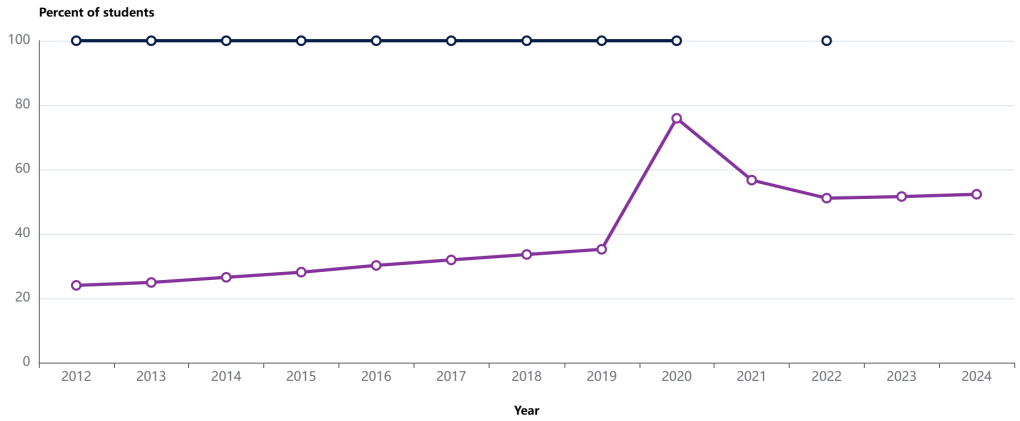
2.1 The Importance of Student Retention

Student retention is not merely an academic concern but also carries substantial economic and social implications. Low retention rates place a financial burden on individuals, communities, universities, and governments (Acevedo, 2023). The literature reveals that university dropout is linked to socioeconomic factors, and research shows that students from economically disadvantaged backgrounds face more challenges (Tzafea and Sianou, 2018), especially in an online environment where connectivity and electronic equipment are necessary components for successful participation.

Eurostat reported that 44.2% of people aged 25 to 34 in the EU had attained tertiary education in 2024 (Eurostat, 2025). The original EU target of at least 45% by 2030 has subsequently been raised to at least 50% (European Commission, 2025). Although educational attainment and student retention are distinct measures, supporting students' continuation and graduation can contribute to achieving this policy objective.

2.2 Online Education Enrolments and Dropout

Before the pandemic, online and DE was aimed at a more specific and limited student population than it is now (van Dorresteijn et al, 2025). In the United States, the share of students at four-year institutions enrolled in DE has more than doubled since 2012, from 26% to 54%, after peaking at about 76% in 2020, during the pandemic (NCES, n.d.) (Figure 1).



Notes: This table presents data collected from Title IV institutions in the United States.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Fall Enrollment component final data (2012 - 2023) and provisional data (2024).

Figure 1: Percent of students enrolled in distance education courses at four-year U.S. institutions, 2012–2024 (Source: NCES, n.d.)

Despite the rise in enrolment, early dropout is typical of online programmes, it usually occurs during the first year of study (Cecchi and Freschi, 2026) and sometimes reaches 50% of first-year students (Xavier, Meneses and Fiuza, 2022). This becomes evident as a scoping review of 60 sources concluded that distance students frequently decide to drop out shortly after beginning their studies and that the transition into distance learning is a critical phase (Trautwein et al, 2026). Recent evidence from the United States is consistent with this. Using national data, Ortagus, Hughes and Allchin (2023) found that students enrolled in exclusively online degree programmes were less likely to complete a bachelor's degree than face-to-face courses. Data on first-time students show that part-time and older students, who make up much of the online population, are the least likely to return after their first semester (National Student Clearinghouse Research Centre, 2025). Among online students, a sense of belonging depends above all on university support, on relationships with faculty and staff, and academic support such as advising which contributes more to a sense of community than social activities do (Shepherd, Bolliger and McKim, 2025).

The main reasons for dropout were identified in a 2024 systematic review and showed: course design and content quality, academic preparation, time management, learner motivation and self-regulation, financial pressures, technology-related barriers, and the adequacy of institutional support as the most frequent reasons for dropout (Rahmani, Groot and Rahmani, 2024). The same review also mentions health concerns, financial limitations, technological issues, screen fatigue, isolation, and academic workload, emerge as significant by online learners. However, another point to be considered while examining the dropout factors is the overlapping assignments which when combined with course difficulty, lead to students' disengagement (Xavier, Meneses and Fiuza, 2022).

3. The Online and DE Dropout in Greece

At the Hellenic Open University (HOU), the only public university in Greece that offers online and DE exclusively, the annual dropout rate fell from 32.8% in 2016 to about 22% in 2022, over a period that included the COVID-19 pandemic, but it never dropped below 20% (Angelopoulou et al, 2025). These rates raise concern in online and DE as they highlight the need to identify students at risk early and provide suitable support, such as academic guidance, orientation, timely feedback, peer interaction and training in digital skills. However, since the data come from a single institution, the findings cannot be generalized to the whole Greek higher education sector. Therefore, further research is needed to examine dropout and first-year support in private colleges providing transnational higher education through online and DE programmes in Greece.

4. Dropout During the First Year of Study

As already mentioned, student dropout in online and DE is a multifactorial phenomenon shaped by institutional, personal, socioeconomic and technological factors (Rahmani, Groot and Rahmani, 2024). Studies have found that disengagement both on-campus and online and DE often happens during the first-year of study (Cecchi and Freschi, 2026; Dermentzi and Pavlakou, 2025, 2026; Xavier and Meneses, 2022). Students often begin their

studies without previous experience, academic or digital skills and familiarity with online education and its requirements (Bağrıacık Yılmaz and Karataş, 2022). Klinke et al (2024) showed that most distance learners reported that they had too little time, underestimating the demands of online education. Similarly in the Greek context, dropout is associated with course quality, support services, academic preparation, motivation, financial pressure, workload, isolation, and technical barriers, while the need for social presence and learner communities remains central to retention (Angelopoulou et al, 2025; Gkioka, 2025; Pisli, Mavroeidis and Papadakis, 2022).

In Greece, research on distance learners' persistence points to institutional support, student engagement and the extent to which online environments foster belonging. Many students who enter online and DE have little prior experience of university study (Pierrakeas et al, 2004). A qualitative study of students who abandoned their studies shows that the reasons for dropout are mainly personal, professional and academic, and are linked to lack of time and obligations (Pisli, Mavroeidis and Papadakis, 2022). During emergency remote teaching in the COVID-19 pandemic, first-year students found it harder than senior students to build relationships remotely and were the least satisfied (Photopoulos et al, 2023). Another recent review concluded that support should be activated from the very beginning of a student's studies, when students who are new to DE must adapt to its demands (Vangelis et al, 2025). Overall, first-year distance learners need administrative staff and faculty who are trained to guide them (Pisli, Mavroeidis and Papadakis, 2022). Taken the Greek and international literature, Table 1 summarises the reasons for dropout in online and DE.

Table 1: Greek and international literature on the dropout reasons in online and de

Category	Greek Findings	International Literature
Course & Programme Design	Inadequate support systems, inflexible programme structure, poor interaction with teachers, wrong programme choice, imbalance between expectations and content	Poor design, layout, content, and weak academic preparation
Student Skills	Insufficient prior knowledge, difficulty in self-regulation, anxiety, self-doubt, feelings of isolation, little digital literacy	Low academic skills, limited knowledge, poor time management, and weak academic preparation
Institutional Support	Tutor support, temporary withdrawal options, and counselling	Institution-wide vision for online education, insufficient robust infrastructure, and strong student and teacher support, course success, learning quality, orientation to online instruction, and support services
Socioeconomic & Work-Family Obligations	Tuition fee increases, sudden loss of income, increased workload and professional obligations	Financial issues, living conditions, workload, and external obligations (work, family)
Demographic & Equity	Higher dropout among male students, prisoners, dependent individuals, mature students, Roma	Demographic factors such as age, disability, cultural norms, previous experience with technology, parents, education, financial issues, vulnerable and disadvantaged students
Technology & Environment	Low digital literacy, poor infrastructure, and connectivity problems act as barriers to persistence	Insufficient digital literacy and inadequate technological infrastructure, technology-related factors (access, connectivity, equipment)
Social Interaction & Belonging	Limited interaction, isolation, anxiety, and self-doubt, weak connection to the institution/community	Poor sense of community, lack of peer interaction, inadequate support

5. The First Year of Study: Challenges and Support for Retention

Student retention benefits both students and institutions and is crucial for an institution's viability (Acevedo, 2023; Dermentzi and Pavlakou, 2025, 2026). The first year is particularly important, as students must cope with

academic demands and adjust to a mode of study that is new to most of them, often while balancing their studies with work and family responsibilities. Early signs of students' intention to leave may emerge during this period (Siddiqui et al, 2025), which is also when most dropout in online and DE occurs (Xavier and Meneses, 2022). Effective student support is therefore needed as early as possible (Klinke et al, 2024).

Institutional support, peer integration, academic engagement, and student belonging are associated with student retention and academic performance (Rahmani, Groot and Rahmani, 2024; Rovai, 2003; Stephen, 2023). Consistent with these findings, a meta-review of effective online higher education identifies that clear course structure, inclusive learning activities, online social interaction, sufficient digital literacy, and coordinated institutional support are factors that support student engagement, performance, and persistence (van Dorresteijn et al, 2025).

Social integration and transition play an important role in students' persistence during the first year of study in higher education (Tinto, 1975). In online and DE, building peer networks through study groups or online learning communities can support engagement, strengthen students' sense of belonging and reduce loneliness (Pisli, Mavroeidis and Papadakis, 2022; van Dorresteijn et al, 2025). Alongside these social connections, students' adjustment to online and DE involves developing consistent study routines, managing time and becoming autonomous learners, particularly when they combine study with work and family obligations (Trautwein et al, 2026; Xavier and Meneses, 2022). Also, support for academic adjustment, monitoring early learning activity and assignment performance may help institutions identify students who need additional academic support, as these indicators predict academic performance in online study (Bravo-Agapito, Romero and Pamplona, 2021; Klinke et al, 2024).

6. A Preliminary Framework for First-Year Retention

To propose a comprehensive framework for first-year students in online and DE, four interrelated domains were considered (Table 2): course design, student development, teaching practices and institutional actions (Kish, 2025; van Dorresteijn et al, 2025), 12 subdomains and 41 components. The components in Table 2 are derived from the literature reviewed above. Where a component goes beyond what the sources explicitly recommend, it is proposed by the author in response to the factors identified. The proposed framework is preliminary, has not yet been empirically tested and needs further research and evaluation by experts and practitioners.

6.1 Course Design

The first domain is course design, which comprises three subdomains: clear course structure, online interaction and inclusive learning activities. Clear course structure involves clear expectations and a realistic workload, as course difficulty and assessment demands can create time pressure for students in online study (Xavier, Meneses and Fiuza, 2022). An early first assignment with timely feedback is proposed as it predicts later dropout (Klinke et al, 2024). Courses should also offer accessible material, guided discussion, peer collaboration, and inclusive tasks that connect content with students' interests and backgrounds (Pisli, Mavroeidis and Papadakis, 2022; van Dorresteijn et al, 2025).

6.2 Student Development

The second domain is student development, which comprises four subdomains: orientation to online study, academic self-efficacy and motivation, self-regulation and wellbeing, and digital literacy. Persistence is linked to self-regulation, digital literacy and time management (Bağrıacık Yılmaz and Karataş, 2022; Rovai, 2003). Bridging modules through workshops should therefore show first-year students how to study online, manage their time, interpret feedback and access support. Also, orientation should continue throughout the first year and not be a one-time welcome event (Xavier and Meneses, 2022).

6.3 Teaching Practices

The third domain is teaching practices, which comprises two subdomains: online teaching competences and professional development. In the first year, teaching presence has both academic and emotional significance: communication, feedback and timely responses help students feel supported (Xavier and Meneses, 2022). Students who dropped out, reported difficulty communicating with their tutors (Pisli, Mavroeidis and Papadakis, 2022). Teaching staff therefore need to develop competences in online pedagogy, accessibility, communication, feedback and responding to first-year students' concerns (van Dorresteijn et al, 2025).

6.4 Institutional Actions

The fourth domain is institutional actions, which comprises three subdomains: first-year advising and early outreach, support structures, and technological infrastructure. Institutions need to provide advising, tutoring, peer mentoring, counselling, helpdesks and flexible office hours, with advising throughout the first year (Pisli, Mavroeidis and Papadakis, 2022; Xavier and Meneses, 2022). Proactive outreach is essential (Kish, 2025), as students may withdraw without informing the institution. Training tutors to recognise early signs of disengagement is also proposed. Learning analytics should be used to identify students at risk of dropout and enable timely intervention, since first-semester activity and performance predict later outcomes (Klinke et al, 2024). Most importantly, a dedicated first-year team should coordinate all the above and ensure continuity of support throughout the first year.

Table 2:

Domain	Subdomain	Components	Expected outcome
Course Design	Clear course structure	▪ Provide a predefined sequence of learning activities and logically organised materials ▪ Set realistic timelines and state clear assessment criteria ▪ Coordinate assignment deadlines across modules to avoid overlap ▪ Set an early first assignment and give timely feedback on it ▪ Practice tests on special online platforms	Expected to reduce early dropout and improve student satisfaction
	Online interaction	▪ Online learning communities for first-year students ▪ Involve faculty in online communities ▪ Live sessions in the entry phase ▪ Netiquette guidelines for synchronous and asynchronous exchanges	Expected to reduce isolation and strengthen the sense of belonging
	Inclusive learning activities	▪ Accessible materials for students with temporary or permanent impairments ▪ Align content with students' interests and cultural diversity ▪ Flexible study pace for students with work and family obligations ▪ Game-based learning	Expected to promote engagement
Student Development	Orientation to online study	▪ Introduce university and online study before or at the start of the academic year ▪ Make clear the time and effort that the programme requires	Expected to ease the transition
	Academic self-efficacy and motivation	▪ Help students feel confident that their efforts can lead to success ▪ Support students in adapting to the new academic environment ▪ Academic skills training, including critical thinking	Expected to support performance and course completion
	Self-regulation and wellbeing	▪ Time management strategies ▪ Offer resilience training ▪ Support for wellbeing	Expected to support academic success and persistence
	Digital literacy	▪ Training and support for accessing and interacting within online environments ▪ Training on digital platforms	Expected to support performance and satisfaction
Teaching Practices	Online teaching competences	▪ Develop interpersonal skills for online communication	Expected to enable effective remote support and course

Domain	Subdomain	Components	Expected outcome
		▪ Establish clear communication protocols ▪ Maintain a proactive teaching presence and contact first-year students first	organisation
	Professional development	▪ Formal training on instructional design and technology ▪ Facilitate informal collaborative learning communities and peer reflection ▪ Training on handling student complaints and on the institution's ethos and values	Expected to reduce barriers to technology adoption and improve teaching
Institutional Actions	First-year advising and early outreach	▪ Assign an advisor during induction and throughout the first year ▪ Monitor first assignment and contact students who miss it ▪ Proactive outreach, such as personalised phone calls ▪ Train tutors to recognise early signs of disengagement among first-year students	Expected to identify students at risk early
	Support structures	▪ Establish a dedicated first-year team ▪ Workshops, tutoring, peer mentoring and helpdesks ▪ One-to-one support and office hours outside typical business hours ▪ Counselling and liaison ▪ Targeted support for vulnerable groups	Expected to improve satisfaction and the sense of community
	Technological infrastructure	▪ Learning analytics to identify and support students at risk ▪ 24-hour technical support ▪ AI tools for timely feedback	Expected to enable timely intervention

7. Conclusion

This paper reviewed the literature on first-year dropout in online and DE and proposed a student retention framework for the Greek context. The review indicated that dropout is a significant concern, particularly early in the programme, and that contributing factors relate to the course, the student, teaching practices and the institution. In Greece, the available evidence comes mainly from the HOU. Even though, online and DE programmes are offered by private colleges providing transnational higher education in Greece, there is no published research that has specifically examined the first-year experience of these students.

In response, the paper proposed a preliminary first-year student retention framework comprising four domains, course design, student development, teaching practices and institutional actions, 12 subdomains and 41 components, with scope for additional components to be incorporated through further research and evaluation. The framework brings together the reviewed literature and proposed actions to provide a starting point for institutions to plan coordinated first-year support. As it was developed through a narrative review and has not yet been empirically tested, future research should evaluate its relevance and feasibility with experts and practitioners and examine its implementation and contribution to retention in online and DE programmes, in both public institutions and private colleges in Greece. These steps could translate evidence into practices appropriate to the Greek context.

Ethics Declaration

Ethical approval was not required because the paper does not report primary data collection.

AI Declaration

AI-assisted tools were used for language refinement and to help identify relevant sources. The author verified

the sources and retained responsibility for the paper's argument, synthesis, interpretation and final wording.

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