Fostering Student Engagement in a Digitally Mediated Environment:

Attitudes and Experiences of Student Advisers

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Abstract

Students' healthy engagement with higher education (HE) can contribute to their psychosocial development, educational attainment and future employability. To help ensure higher education institutions (HEIs) have the capacity to deliver engagement support and services, they need to take account of recent developments regarding how engagement is enabled, experienced, and assessed. One such way these developments are evidenced is in the growing digitisation of HEIs' interpersonal engagement resources, particularly the interconnectivity between in-person and remote student resources. In tandem with technological shifts, staff's reliance on digital technologies to facilitate and sustain student communications, i.e. digital mediation, has grown exponentially in the wake of COVID-19. In light of the increasing demand for digital mediation across academic, advisory, and administrative domains, our research project explores Student Advisers' (SAs) experiences interfacing with digital and in-person engagement methods in providing student support. We examine SAs' recent experiences of and attitudes towards student engagement and how they have sought to ensure service continuity amid rapid transformations, including the proliferation of digital communications and the challenges and opportunities this entails. By deconstructing the dichotomy between digital and in-person support and recontextualising them as part of an interpersonal support continuum, we re-evaluate the nature and role of student engagement against the needs currently facing the HE sector. Drawing on the recent experiences of staff within two Irish HEIs, University College Dublin and Dublin City University, we present a conceptual matrix detailing core components and characteristics of student engagement. While interpersonal support can encompass in-person and digitally-mediated interactions, the ongoing centrality of in-person interactions in fostering student engagement remains apparent, pedagogically and pastorally.

Key Words

Engagement; Digital Mediation; Attendance; Student Adviser; Student Supports

Introduction and Overview

Students' engagement with their Higher Education Institution (HEI) is pivotal to their psychosocial development and is predictive of educational attainment (Balwant, 2018; Kahu & Nelson, 2018; Kahu, Stephens, Leach, & Zepke, 2015) and employability (Ehiyazaryan-White & Barraclough, 2009). Engagement is a dynamic and multidimensional concept in what it represents to educators and how it is experienced by students. Kuh (2009, p. 683) defines engagement as 'the time and effort students devote to activities that are empirically linked to desired outcomes of college and what institutions do to induce students to participate in these activities'. Successful participation in these activities requires students to apply a range of cognitive, behavioural, social, affective, and agentic competencies across numerous domains within their higher education (HE) environment. Consequently, student engagement can express itself through a variety of means and channels, within academic and non-academic settings (Krause, 2011).

Amid increased attentiveness from academic and advisory communities toward fostering holistic student engagement (Pickford, 2016), how it is enabled, experienced, and assessed within HEIs continues to diversify. These developments are especially apparent in the wake of the COVID-19 pandemic, which has precipitated heightened reliance on digitally-mediated student-staff interactions across academic, advisory, and administrative domains. Thus, alongside the numerous educational and social interaction opportunities offered by HEIs within their onsite educational interface (Kahu & Nelson, 2018) of lecture halls, work placements, societies and events, interpersonal exchanges are also being mediated via digital tools. This diversification of student engagement methods and processes reflects the ever-advancing dynamic capabilities (Teece, Pisano, & Shuen, 1997) possessed by HEIs – attributable, at least in part, to technological innovations and the proliferation of digital resources (Karkouti & Bekele, 2019; Underwood & Anderson, 2018). Swift changes in the design and delivery of student engagement strategies (Recio & Colella, 2020) raise questions about the ability of digital tools to assist HE staff in monitoring, managing, and motivating engagement effectively. Addressing these questions entails re-evaluating the nature and role of student engagement within the evolving digital mediation model.²

In this paper, we examine Student Advisers' (SAs') attitudes towards and experiences of student engagement at two HEIs in Ireland as they deliver student support comprising a combination of in-person and digital engagement resources. In the study sites, University College Dublin (UCD) and Dublin City University (DCU), SAs are HEI staff responsible for student welfare who provide information, advice and support, and facilitate referrals. Students can avail of this service to help them navigate personal,

¹ Teece et al., (1997, p. 516) define dynamic capabilities as 'the ability to integrate, build, and reconfigure internal and external competencies to address the rapidly changing environments'.

² Against this background, the cross-institutional project "Supporting Student Success: A Collaborative Approach to Enhancing Engagement, Employability and Life Skills" between University College Dublin (UCD) and Dublin City University (DCU) aims to align digital and in-person support to enhance student support service provision.

pedagogical, and administrative aspects of their HE journey. A defining feature of the UCD model is that every School has a dedicated SA offering programme-specific knowledge, guidance, and assistance. Using a mixed-method methodology, we ask how Student Advisory Services, in particular, have responded to increased reliance on digital engagement and how they have sought to ensure continuity of service delivery amidst recent changes. We also examine what they believe to be the challenges and opportunities inherent in the increased integration of technology into their role, how receptive they are to these developments, and what resources can be employed to maintain actionable insights into students' needs and wants. In light of the growing demand for digital mediation, we examine its position and status within the ambit of student support and services. Finally, in deconstructing the dichotomy between digital and in-person supports and recontextualising digital engagement as part of a continuum of interpersonal resources, we develop a conceptual framework articulating core components and characteristics of student engagement.

Student Engagement Within Higher Education

Student engagement is a recurrent theme within contemporary research into the principles and practices underpinning successful HE. Positioned as a key determinant of effective teaching and learning (T&L) for researchers and policy-makers (Ashwin & McVitty, 2015), the concept of student engagement seeks to promote healthy participation in and successful outcomes from HE. Despite its indispensability, engagement is a complex concept subject to ongoing interpretation, reflected in its numerous evolving definitions, indicators, predictors and measures (Yazzie-Mintz & McCormick, 2012). This concept provides insights into the HE experience and environment in two key ways. Firstly, engagement can be applied descriptively to illustrate, analyse and interpret how students can participate and develop within their HE environment. Secondly, prescriptively, it has emerged as a benchmark against which didactic, advisory and support strategies are developed and delivered.

As discussed, Kuh (2001; 2009) describes student engagement as participating in educational practices and activities that are intrinsically conducive to learning and growth. This goal can be achieved across numerous domains and pursuits within students' 'educational interface' (Kahu & Nelson, 2018) – where students can devote 'time, energy and resources' (K.-L. Krause, 2005) within and beyond formal education contexts. As HE staff's awareness and insight into the personal and environmental determinants of student success continues to evolve, HEIs have sought to affirm the standing of student engagement, embedding it more explicitly in course content and delivery. These developments are occurring against shifts within T&L strategies from passive information-based approaches to education toward proactive competency-based approaches that promote HE's work-life applicability and utility (Brauer, 2021). Competency-based education entails a greater emphasis on students' dynamic involvement in the learning process through approaches such as dialogue, collaboration and practical participation (Gillies & Howard, 2003; Massingham & Herrington, 2006). Thus, students' engagement in their HE journey encompasses

more than just knowledge acquisition; in a broader sense, it is a psychosocial endeavour encompassing many forms of interaction and application of education activities (Fried & Konza, 2013; Khademi Ashkzari, Piryaei, & Kamelifar, 2018).

Engaging with one's HEI requires ongoing deliberation and volition: the will and the willpower to continuously commit to involving oneself in the challenges and opportunities HE offers. Investing in a variety of academic and non-academic pursuits enables students to accumulate educational capital, i.e. skills and abilities they can subsequently apply in professional domains (Bowden, Tickle, & Naumann, 2019). As such, engagement is an investment, a holistic and future-orientated process rather than a singular act; 'a more persistent and pervasive affective cognitive state that is not focused on any particular object, event, individual, or behaviour' (Schaufeli, Salanova, González-romá, & Bakker, 2002, p. 74). However, this investment is not solely students' responsibility (Trowler & Trowler, 2010). It is underpinned by reciprocity of effort and initiative between students and their HEI that must create an environment, institutionally and interpersonally, conducive to continued commitment on the part of their student body.

Given this reciprocal role students and HEIs play in fostering engagement, the personal, academic, and professional agency accrued throughout students' HE journey is not synonymous with total independence. Instead, it emerges through navigating and embracing the varied interpersonal encounters HE entails, which in turn deepens one's own intrapersonal awareness and understanding; as Lawson and Lawson (2013) discuss, engagement is a dynamic, synergistic process incorporating social and psychological facets. At its heart, engagement is about students establishing and maintaining constructive and meaningful relationships within their educational community (Fergy, Marks-Maran, Ooms, Shapcott, & Burke, 2011; Yazzie-Mintz & McCormick, 2012); becoming responsive and responsible agents. This is an embedded experience shaped by the active interplay between their internal self and external environment (Ecclestone, Biesta, & Hughes, 2009; Fredricks, Blumenfeld, & Paris, 2004; Kahu, 2013; Phan, 2014).

Broadly, engagement pivots on students' discovery, deployment, and development of their individual and environmental resources to optimally participate in HE in ways that enhance their wellbeing and academic success. Nevertheless, the means and meaning of engagement may vary from student-to-student and cohort-to-cohort, with different students requiring distinct supports and resources to foster participation, e.g. learning assistance and social networks. It is vital for HE support staff to recognise these differences so that, beyond simply having supports and resources available, students are educated and empowered to seek out and utilise appropriate help autonomously.

Student engagement is multidimensional, comprising distinct-yet-related capacities that merge to create a healthy and holistic learning experience when positively

attended to and expressed. Drawing on the literature, we present provisional descriptions of five such components of engagement:³

- i. Cognitive Engagement: The student's active, attentive, psychological investment in their learning process. This is expressed through self-regulating one's learning and mentally exerting oneself when acquiring, apprehending and comprehending the knowledge and skills necessary to advance subject mastery.
- ii. Behavioural Engagement: The student's active, external participation in their learning and development activities. This is expressed through conducting oneself productively and being involved in one's HEI across academic and extracurricular pursuits, alongside performing in academic assessments.
- iii. Affective Engagement: The student's feeling of being personally connected with and emotionally invested in their HE experience. This is expressed through valuing and cultivating the role that the HEI experience has in one's life, including being enthusiastic and optimistic about its worth and outcomes.
- iv. Social Engagement: The student's feeling of identifying with, and healthily interacting with, significant others within their HE experience. This is expressed through becoming socially embedded within and developing a sense of belonging and inclusiveness towards one's HE social context.
- v. Agentic Engagement: The student's intentional, constructive efforts to shape their teaching and learning experience. This is expressed through proactively participating in reciprocal transactions with others across relevant HE domains and collaborating on the design and delivery of their educational experience.

As presented in this paper, the Student Engagement Matrix provides a conceptual framework for describing critical components of the student engagement experience. This framework outlines its distinct characteristics, how they express themselves within students' lives, and how they can contribute to the HE experience. In addition, this matrix explores specific promoters of each component and the role SAs can play in fostering these activities; accordingly, the potential consequences of digital mediation are also examined. As a result, it aims to synthesise insights from the literature with the experiences of a cohort of SAs working in this field. This high-level overview can be employed to reflect on and respond to continuing technological innovations in the HE field, particularly within an advisory context. As a guide for building on and applying research outcomes, it can inform, substantiate and help map practical applications linking the conceptual underpinnings of the research project to institutional recommendations.

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³ Research that was drawn on includes (Blumenfeld et al., 2005; Bowden et al., 2019; Christenson, Reschly, & Wylie, 2012; Eldegwy, Elsharnouby, & Kortam, 2018; Fredricks et al., 2004; Fried & Konza, 2013; Kahu, 2013; Kahu & Nelson, 2018; Kahu et al., 2015; Khademi Ashkzari et al., 2018; Klem & Connell, 2004; K. L. Krause & Coates, 2008; G. Kuh, 2006; Lay-Hwa Bowden, 2013; Mahatmya, Lohman, Matjasko, & Farb, 2012; NCESS, 1992; Nguyen, Cannata, & Miller, 2016; Reeve, 2012, 2013; Reeve & Shin, 2020; Reeve & Tseng, 2011; Reschly & Christenson, 2012; Schaufeli et al., 2002; Vivek, Beatty, Dalela, & Morgan, 2014; Wentzel, 2012; Yazzie-Mintz & McCormick, 2012)

Technological Innovations Within Higher Education

Technological innovations broaden the scope of student engagement opportunities, alongside HEIs' capacity to capture and critique engagement activity (Hlosta, Zdráhal, & Zendulka, 2017). We define "digital mediation" as the use of technology and analytics tools by HEI staff in managing, monitoring and maintaining students' interactions and engagement. These resources are integrated into their respective HEI's digital architecture, providing a communication and support pathway between staff and students (Kinsella, Wyatt, & Nestor, 2022). The functionality of digital mediation has perhaps been felt most strongly pedagogically, supplementing in-class learning and, throughout on-campus restrictions due to COVID-19, acting as the primary engagement medium (Quacquarelli Symonds, 2020). Engagement oversight and organisation are observable in digitally-sourced metrics across numerous fields, including Learning Management System (LMS) and Virtual Learning Environment (VLE) usage, assessment grades, library usage, fee compliance and physical attendance. For instance, VLEs are an increasingly indispensable means for Module Coordinators (MCs) to distribute learning content, resources, communications, and assessments (Alves & Morais, 2017; Alves, Miranda, & Morais, 2016), facilitating methods of learning beyond those accomplished within solely face-to-face instructional contexts.

Before campus closures in March 2020, technology-embedded trends were well established; for example, in University College Dublin's (UCD's) INDEx Student Survey (2019), it is noted that 84% of student respondents supported learning with smartphones, and 95% used online digital resources weekly. Alongside institution-driven advances, community-driven peer-to-peer connections are also being enabled. This shift is evident, for example, through social media technology, providing students and HEIs with the ability to create, interact with, and share user-generated and existing content across digital platforms and environments (Davis, Deil-Amen, Rios-Aguilar, & Canché, 2012).

Given the increasing prevalence of digital mediation, it is worth considering appropriate domains for its application beyond T&L contexts. Alongside reducing potential barriers to learning, technological innovations bolster student support avenues and capabilities (Bouchey, Gratz, & Kurland, 2021; Morra & Reynolds, 2010), including through heightened flexibility and adaptability in student service connection. Appropriately used, VLE data can be beneficial from an intervention standpoint. For example, Gardner and Brooks (2018) note that early access to course resources provides accurate predictions of success or failure within two weeks of commencement. Here, potential student disengagement can be identified and mitigated via engagement analytics, with a knock-on benefit of improving student retention (Cooper, Ferguson, & Wolff, 2016; Nik Nurul Hafzan, Safaai, Asiah, Mohd Saberi, & Siti Syuhaida, 2019). In addition, data collection systems, such as remotely distributed progress and feedback questionnaires, can simultaneously uphold and audit the quality of support services (Fox, Byrne, & Surdey, 2020).

Notwithstanding how student metrics can contribute to academic engagement, they should be collected, analysed, and actioned with caution. As Brooks, Thompson, and Teasley (2015) highlight, there are risks when innovative student support technologies are applied inappropriately or erroneously. A clear understanding of what data are being captured and measured by learner analytics and ensuring well-defined engagement thresholds are necessary for meaningful predictive insights (Gašević, Dawson, Rogers, & Gasevic, 2016). Wolff, Zdrahal, Nikolov, and Pantucek (2013) echo these concerns, noting it is essential to consider how well modules' structure and intended use within a VLE are aligned during the development process. Since much of the current literature on digital engagement is informed by MOOCs (Massive Open Online Courses), rather than engagement data that augments physical classroom environments (Gardner & Brooks, 2018), ongoing research is needed to identify how HEIs can integrate digital resources and strategies most effectively to facilitate the proper management, monitoring and motivation of student engagement, particularly when hybrid in-person/distance learning approaches are used.

The reciprocal functioning between digital and in-person engagement is also evident in HEIs' Student Advisory Services, which utilise both methods to anticipate, identify, and respond to students' needs. Engagement technologies continue to help deliver a broad spectrum of resources and initiatives, bolstering students' disengagement identification and intervention safety net. Hodges, Moore, Lockee, Trust, and Bond (2020) note qualitative differences between courses delivered online as a short-term response to acute shifts in the HE landscape and those seeking to embed digital tools in their T&L strategies meaningfully. From this perspective, suspending onsite engagement may significantly impact many HEIs' ability to deliver the resources and support foregrounding professional development. For example, in programmes that integrate practice-based and experiential learning into progression requirements, such as clinical courses, face-to-face interactions are embedded in curriculum content and standards because they enable students to appreciate real-world applications of their learning and navigate prospective professional scenarios.

Building on the argument that the human-centric and socially-minded facets of educational interaction remain integral to digital engagement strategies (Recio & Colella, 2020), it is important to consider the most effective methods for integrating technologies into learning and support in a way that enhances dynamic and organic communications. This process requires examining each medium's role and the benefits derived from using them in combination as part of a hybrid model that sustainably integrates the digital campus with the physical campus (University College Dublin, 2020).

Delivering Higher Education Supports: The Student Adviser

The Student Adviser: Role and Responsibilities

Engagement across academic and non-academic contexts is a core component of investing oneself in the HE experience – a precursor to HE integration and the meaningful internalisation of new experiences. Throughout their transition to HE, students encounter numerous, often challenging, changes across different domains of their life. Academically, they must undertake a transition jump (Coertjens, Brahm, Trautwein, & Lindblom-Ylänne, 2016) from more paternalistic T&L strategies toward greater self-regulation in their learning approach (Valle, Nunez, Cabanach, & González-Pienda, 2009). The ability to self-direct one's learning is essential for HE students - both practically as they plan, initiate, and evaluate learning activities (Gamble et al., 2018; Merriam & Baumgartner, 2020), and existentially as they deepen their understanding of why they have embarked on this journey. As discussed, a cohort of distinct capacities contributes to students' ability to undertake these tasks. As well as intellectual and behavioural discipline to adhere to learning standards and benchmarks, a sense of belonging and social integration are critical to students' wellbeing, academic success, and persistence (Hughes & Byrom, 2019). However, as the Union of Students Ireland (2019) note, 35.9% of student respondents report feeling lonely all the time/often, and >20% do not have someone to talk to about personal and emotional difficulties.

As student stress rises from diversifying sources, providing appropriate support is an ongoing priority for HEIs (Robotham, 2008; Robotham & Julian, 2006). Neither UCD nor DCU views their student body as a uniform entity within their strategic policies and documents, neither are their experiences homogenous. Instead, both institutions' missions are underpinned by cultivating educationally-rounded, socially-minded graduates who are willing and capable of contributing to society across local, regional, national and international settings (see, for example, (Dublin City University, 2017; University College Dublin, 2020)).⁴

Staff within HEIs must recognise the distinct challenges and opportunities students encounter which can foster and impede their psychosocial development and aligned attainment. Certain groups and demographics may be more exposed to difficulties that affect their wellbeing, e.g. students with disabilities or from minority groups (Fox et al., 2020). It is also important to be mindful of discrepancies in 'cultural capital' (Bourdieu, 1986) possessed by students who may not be part of a particular minority group but nevertheless are experiencing personal challenges, and how the resources they can invest in and derive from their programme may vary.

In addressing such challenges, academic staff can deliver personalised educational assistance with their teaching and research duties. While academic advisers help students address issues relating to their specific programme or module, students' ability and willingness to engage can be affected by matters beyond this arena. Consequently, and given that academic advisers are called to be a readily available

⁴ Acknowledging student distinctiveness, a key objective of DCU's Strategic Plan 2017-2020 (Dublin City University, 2017) is to provide opportunities and support relevant to students' individual needs, aspirations, and circumstances.

source of information and encouragement (Crockkett, 1985), the student support role requires understanding both institutional issues, e.g. curriculum content and academic policies, and student issues, e.g. psychosocial development (Coll, 2008; Grites & Gordon, 2000). In UCD and DCU, the quality of students' HE experience is not exclusively the responsibility of academic faculties; instead, it is shared across multiple domains, including student services and resources, administrative services, information & communications technology infrastructure, and advisory supports. Student Advisers (SAs) are, therefore, ubiquitous and a central component of student support services, particularly around issues relating to transition and retention such as social and academic integration (Fergy et al., 2011; Tinto, 1987).⁵

UCD and DCU: Student Advisory Models

The SA models in UCD and DCU were chosen to frame and conduct our primary research; these contexts inform the experiences and insights underpinning the research findings. The collaboration between UCD and DCU emerged as part of a cross-institutional project entitled "Supporting Student Success: A Collaborative Approach to Enhancing Engagement, Employability and Life Skills", funded by the Higher Education Authority (HEA).⁶ This project comprises a partnership between the UCD "Live Engagement and Attendance Project" (UCD LEAP) and the DCU "Leadership & Life Skills Centre". A key objective of this joint project is to develop and test digitally-enhanced student support tools with cross-sectoral applications to assist staff in anticipating, identifying, and responding to student disengagement, alongside helping students adjust to university life and enhance their development and progression.

Students may access advice and guidance from the DCU Student Advice Centre, a Student Support & Development unit, regarding academic, personal, and financial matters. Here a wide range of one-on-one meetings, programs, and workshops are available. They are responsible for developing individual support plans, delivering information, coaching, coordinating with academic and non-academic services, and developing and maintaining online and physical resources. Similarly, the UCD Student Advisory Service provides assistance, support, and referrals to all UCD students. There is a dedicated SA in every academic programme at UCD who offers students opportunities to discuss issues of concern. In addition to advising students

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⁵ UNESCO. (1998, p. 33) outlines the function of academic advising across different areas: providing information about academic requirements, helping students understand academic policies and procedures, helping students access campus resources, assisting students in overcoming education and personal problems, and identifying and intervening with achievement and progression impediments.

⁶ DCU is located on the north side of Dublin, Ireland and has 17,400 students and over 80,000 alumni as of 2020. In addition, 1,200 students study online through DCU Connected, DCU's distance learning program. DCU comprises five faculties: the DCU Business School, Faculty of Engineering & Computing, Faculty of Humanities & Social Sciences, DCU Institute of Education, and Faculty of Science & Health. UCD is the largest university in Ireland; located in South Dublin, it had 35,286 students and 297,000 alumni as of 2020. It comprises five Colleges: Arts and Humanities, Business, Engineering and Architecture, Health and Agriculture Sciences, Science, and Social Science and Law.

on appropriate UCD policies, procedures, and services, SAs can help students deal with personal, social, and emotional issues.

The SA models developed within UCD and DCU distinguish themselves through the distinctive role that SAs play for students and the institution. They have a prominent part in fostering student engagement by providing pro-active and personalised assistance through ensuring that interpersonal interaction remains a central aspect of students' experience, within and beyond their classrooms. At the local level, they enable students to identify and achieve goals and tackle personal challenges, playing a vital role in the orientation and integration of new students and community enhancement projects. At the institutional level, they advocate for policy and structural change in response to evolving student needs and preferences. Fulfilling this role can be demanding, particularly given the ongoing transformation of HEI environments, including issues such as 'students' changing and complex needs, increasing student numbers, the growing diversity of the student body, and the continued societal challenges that face the student community' (Last et al., 2018, p. 64).

The principles by which SAs operate and how they implement student engagement initiatives are significant factors in differentiating this model. Firstly, regarding their orientating principles, SAs are a holistic solution to student engagement needs, encompassing pastoral and practical services across numerous domains, e.g. personal, academic, financial and professional. As pastoral, they offer non-judgemental services attuned to students' broad psychosocial needs, evidenced in engagement strategies such as motivation enhancement and strengths-based approaches. From a practical perspective, they help students navigate policies and procedures, codes of conduct, and facilitate initiatives, e.g. orientation and advocacy. Accomplishing these tasks requires that SAs are embedded within and networked across their HEI, helping to provide a range of services across numerous stages of a student life-cycle. As a result, they are well positioned at the heart of the student-institution interface. In terms of the practical applications of this role, operating at individual and community levels, they provide a range of services, including:

- i. Academic: Students may require additional course support outside the student-teacher educational dyad, often perceived as evaluative. By delivering personalised academic oversight and assistance, SAs can augment students' T&L experience and empower them to become self-determined learners, e.g. liaising with academic support centres and lectures.
- ii. Social: Students need to understand and navigate the culture of their HEI and build a sense of belonging (Exter, Korkmaz, & Boling, 2014) if they are to integrate and become constructive members of their cohort. Particularly for incoming first-year students, SAs can foster the process of peer-to-peer integration, such as through involvement in social activities, e.g. support for clubs and societies and peer mentoring.
- iii. Personal: Students' motivation to participate can be affected by issues within their personal life. SAs can provide pastoral support through intrinsic motivation

- enhancement and strengths-based advising, helping increase engagement, self-regulation, self-efficacy, and retention (Locke & Latham, 2002; Lunsford, 2012; Soria, Laumer, Morrow, & Marttinen, 2017).
- iv. Financial: Given the varied demographic profile of HE students, they often present with different needs, such as financial issues that can impede their access to material and experiential resources. SAs can help locate and secure financial support for students, e.g. nationally available student support funds.
- v. Referrals: SAs are embedded within the HEIs, liaising between schools and departments. The services a student requires may be beyond the direct scope of SAs' role; at such times, they can refer students to appropriate supports and resources, e.g. health, counselling, chaplaincy, and careers services.
- vi. Organisational: SAs play a pivotal role in managing expectations of students in the institution and the student experience, helping students navigate policies and procedures, codes of conduct, and bureaucracy with external agencies. Bowden et al. (2019) note that clear expectations are a precursor of engagement. SAs help to shape students' expectations by clarifying the purpose of their service and what the student can reasonably anticipate as an outcome of their meetings.

SAs within UCD and DCU eased into the transition to working within digital platforms as they had experience applying these within their services (White, 2020). Furthermore, SAs had worked closely with diverse student populations, necessitating digital tools, including students on study abroad, work placements, and participating in online education. However, according to Simpson (2018), 'one cannot assume that online students will request help or proactively seek advising assistance'. This challenges SAs in proactively promoting and providing their services, recognising how students' needs have developed in response to recent sectoral changes and the role digital mediation strategies can play in addressing these shifts.

Research Design

This research project is an interpretive study underpinned by contemporary psychosocial developmental theory and engagement theory. Data was collected from January-March 2021 at Dublin City University and University College Dublin. Participants were drawn from a purposive sample of SAs working within these HEIs (population: UCD n=14; DCU n=4; sample: UCD n=10; DCU n=4), with 78% response rate. As full-time SAs, participants were homogeneous in their profession, interacting with students regularly and identifying and addressing their engagement needs. However, several latent heterogeneities were observed regarding professional experience and student cohorts with whom they worked. For instance, DCU has a centralised SA structure, which allows participants to interact with students from multiple schools simultaneously. However, UCD SAs, while centralised in policies and procedures, are located in individual schools within their HEI and interact with programme-specific student cohorts.

This research approach comprised a mixed-method questionnaire consisting primarily of open-ended, structured qualitative questions administered online via Google Forms. It addressed the key topics of Student Engagement, Supports Delivery, Technology Usage and the Student Experience. Ethical approval was granted by the UCD Research Ethics Board and the DCU Research Ethics Board. Although the role and responsibilities associated with the SA model are distinct, their experiences adjusting to innovative technology-driven modes of communication can be generalised to a broader group of HE professionals addressing student support needs via remote or hybrid models. Codes were used to anonymise participants as follows: P=Participant, followed by alphabetically categorised participant, and institution of affiliation, UCD=University College Dublin and DCU=Dublin City University.

Using a predominantly qualitative approach, this study explored SAs' experiences and perspectives on digital mediation, including how they incorporate it into student communications and engagement methods. To derive themes of practical significance from the data, a reflexive thematic analysis rooted in phenomenological interpretation was conducted. This process involved reviewing, identifying and analysing the data set for meaningful patterns (Braun and Clarke, 2006). According to this approach, the researcher's subjectivity serves as an analytical resource (Clarke and Braun, 2018, Braun and Clarke, 2019).

The Project Researcher was responsible for overseeing the analysis and interpretation of the research data. Following the reading, familiarisation, and organisation of participant responses to enable latent information patterns to emerge (Braun & Clarke, 2019), the Project Researcher and Project Manager conducted manual coding and analysis. Initial codes were generated by documenting patterns combined to derive and develop more general themes. Preliminary findings were presented to the UCD Live Engagement and Attendance Project (UCD LEAP) team, consisting of two Project Leads and the Principal Investigator, and two members of the DCU Leadership & Life Skills team, to whom the participant data were made available for referral and analysis. As part of the team's deliberations to ensure internal consistency, consideration was given to the appropriateness of the methodological approach and its ability to address the central research questions. The team also examined the accuracy of the themes in capturing the source data, the robustness of the analytic processes, and the ability of insights to be translated into practical outcomes, particularly in light of the distinctive SA models under consideration and broader trends in HE digital engagement. After completing this process, the Project Researcher and Project Manager performed further thematic analysis to ensure intra-coder reliability. The preliminary results were presented internally to UCD SAs as part of the verification process. The research team reconvened to reassess and refine conclusions upon presenting findings at the European Conference on Education 2021 (Maurice, Kinsella, Nestor, Wyatt, Moloney, & Connolly, 2021). The following themes emerged:

i. The Student Experience

- a) Motivational Impairment: A lack of in-person interaction affects student motivation academically and socially.
- b) Multidimensional Engagement: Student engagement comprises distinct, inter-related components; digital mediation limits SAs' options in fostering engagement.

ii. Student Support Delivery

a) Functionality of Hybrid Supports: SAs are willing and capable of providing hybrid support using in-person and digital communications.

iii. Institutional Initiatives

a) Ongoing Institutional Assistance: To assist students in successfully reintegrating into in-person engagement, institutions must provide ongoing support.

Thematic Analysis⁷

Theme One: Motivational Impairment

Summary: Students' motivation to engage has been affected by a lack of access to inperson activities and interactions, both academic and social.

The majority of participants (n=11) agreed that while digital tools and VLEs have enabled continuity of services and supports, students' holistic engagement has been undermined as they have missed out on in-person relationships (both formal and informal) within social and academic settings, and their aligned benefits. For example, in-person educational activities can offer structure and direction, and social activities can provide connection and a sense of belonging.

"I am concerned in particular about 1st years who haven't had the chance to consolidate those friendship groups" (PA-UCD).

"For all students, the lack of physical interaction both at academic and social levels has impacted on their potential to enjoy and perform well throughout their university life" (PA-DCU).

When asked if the move to online learning influenced students' engagements, participants (n=6) noted the detrimental effects a lack of in-person social engagements had on students' motivation.

"Students are less motivated, missing out on the social aspect of UCD and connecting with their peers" (PF-UCD).

 $^{^{7}}$ Quantitative feedback describing aspects of participants' service provision capacity is outlined for descriptive purposes in Appendix Two.

"The move to online learning has removed the physical interaction between the student and their learning environment, which is a core motivating factor when it comes to academic success" (PG-UCD).

Motivation is a psychological state characterised by the arousal and adoption of goal-directed behaviours (Valle et al., 2009). In the context of our current discussion, Brophy (1988, p. 205) defines motivation as 'a student tendency to find academic activities meaningful and worthwhile and to try to derive the intended academic benefits from them'. Therefore, students' motivation level determines their ability to engage constructively with their HEI. Motivating students is essential to maintaining their capacity to engage in the educational experience healthily and holistically, playing a pivotal role in their educational attainment and progression. Research by Janke (2020) notes that intrinsically motivated students with a learning goal orientation had higher satisfaction levels and were less likely to drop out than extrinsically motivated students who are orientated toward performance goals. Additionally, motivation to maintain participation can be understood as a feedback loop whereby the more healthily engaged students are with their HEI, the more they are in a position to internalise the benefits of participation and, therefore, may be driven to maintain involvement.

Aligning insights from the literature with feedback from SAs, it is apparent that motivation is a complex and relational phenomenon unique to each student that SAs must understand as operating within and influenced by the daily resources and constraints students face. By exploring the underlying reasons for students' participation in their programs, including their personal and professional aspirations, SAs can identify motivation-centric engagement issues, promote intrinsic motivation, and tailor resources accordingly (M. Kinsella, Wyatt, Nestor, Rackard, & Last, 2022).8

Theme Two: Multidimensional Engagement

Summary: Student engagement is multidimensional, arising from various experiences; digital mediation has impeded SAs' options in fostering different forms of engagement.

There is a wide range of experiences and capacities entailed with student engagement; when asked what the primary ways that students engaged with their HE environment were, different forms included: cognitive (n=6), e.g. "engaging in their academic coursework" (PF-UCD); behavioural (n=10), e.g. "attendance at lectures, labs and tutorials" (PC-UCD); social (n=10), e.g. "participation in student led activities" (PD-UCD); emotional (n=3), e.g. "taking civic pride in their institution" (PJ-UCD); and agentic (n=3), e.g. "representation on SU and academic committees" (PB-UCD). Correspondingly, the multidimensional nature of fostering engagement is reflected in

⁸ To address student disengagement, Kinsella et al. (2022) propose three strategies for strengthening student motivation, based on SDT principles: Addressing competency needs by defining and communicating reasonable participation expectations, responding to relatedness needs by providing holistic engagement resources; and attending to autonomy needs by empowering students in their decision-making.

the broad range of roles and responsibilities that participants noted they occupy. These roles extend across academic, administrative and pastoral domains, encompassing tasks such as:

"I would meet with a student to assess their level of engagement in all aspects (academic, social, community) to see where they would like to make changes and more meaningful participation and work with them to see how this goal(s) can be achieved" (PB-UCD).

"Utilisation of student supports and services to develop personally, professionally or academically" (PB-DCU).

Here, students were supported intrapersonally by focusing on enhancing their personal capacities (n=8), and interpersonally by creating an environment conducive to their engagement (n=8).

"Providing a relationship space for the student to reflect upon and identify their issues and assist and empower the student to address those needs" (PH-UCD).

"I support students to develop community through social initiatives" (PE-UCD).

As discussed, central to this process is collaborating with students on identifying engagement impediments and enhancers, and tailoring supports accordingly, such as through information, referrals, and student-led activities, e.g. "encouraging and sometimes creating links between the student and other sources of support within the university" (PG-UCD). As a result of the upsurge in digital mediation and the lack of in-person campus attendance, SAs were more limited in the range of HEI student support resources they could avail of, particularly community-based transition and integration initiatives such as peer mentoring and social events. Importantly, SAs recognised that the student body also play a vital role in creating an engaging and supportive environment; consequently, it was noted (n=8) that students have also missed out on the potential benefits accrued from on-site social interactions with their peers.

"Socially, the absence of in-person meetings and events has negatively impacted students' opportunities for organic social development at a developmental stage when, for most of them, peer-informed identity is so important" (PG-UCD).

Theme Three: Functionality of Hybrid Supports

Summary: SAs possess the ability and willingness to provide hybrid supports, utilising in-person and digitally-mediated communications.

Digital mediation has presented opportunities and challenges for SAs. Participants noted that this move augmented forms of access (n=4), availability (n=4) and flexibility (n=4) in service provision, potentially bolstered by students being "...more innovative in this space than staff as they are digital natives" (PB-UCD).

"It allows students access some services 24/7 so they use information when they need it and not when we are available" (PB-DCU).

"I am more flexible to meet students online after regular working hours" (PA-DCU).

Alongside these positives, they observed that there have been challenges in fostering interactivity, wherein it is more difficult to establish an organic, fluid dialogue responsive to emotional needs arising in the moment. In light of this, participants (n=5) mentioned that while one-to-one service continued via, e.g. video calling platforms, these interactions may lack a sense of the dynamic engagement that comes with inperson interaction:

"I may lose some of the advantages that physical meetings can bring in terms of verbal/non-verbal communication" (PG-UCD).

"Sometimes the tech is a bit clunky and a moment is lost and the fluidity of conversation is impacted comparatively to other arenas" (PD-UCD).

Therefore, in-person 'face-to-face' engagement remains central to students' psychosocial and academic development.

"The loss of face to face contact has been a challenge and a transition – mindful that it will not be forever but there is something 'real' missing" (PC-DCU).

"At the moment the technology we have is robust, however does not replace the advantages to a face to face meeting" (PB-DCU).

Nevertheless, while heightened reliance on digital tools has shaped how SAs and students engage, this shift has not undermined SAs' capacity to make tangible contributions to students' welfare. The concept of interpersonal support has evolved to encompass in-person and digitally-mediated interactions. Instead of a binary, these forms of student-staff interaction exist within HEIs on a continuum. Hybrid services have traditionally been applied within a pedagogical context; here, the question is, can a similar integration of digital and in-person communication approaches be used within advisory relationships? In this regard, SAs noted they possess the ability and willingness to continue integrating technology into service provision. However, this requires ongoing efforts to ensure knowledge and competency in digital tools and techniques (as outlined in Theme Four).

"[A] blended approach will give more flexibility in the future for students...There is no point a student rushing to meet an adviser, if they can have the meeting online" (PB-UCD).

Theme Four: Ongoing Institutional Assistance

Summary: Students' ability to successfully reintegrate into in-person engagement requires the provision of institutional supports.

Participants noted that providing appropriate tools and resources made the transition to digital engagement strategies more manageable for staff and students. As students have embarked on the process of commencing, or recommencing, in-person engagement, they require ongoing institutional assistance to ensure this process is as effective and seamless as possible; this is evident across three areas: communication between students and their institution/staff, fostering a sense of community, and providing resources for technological connectivity.

In terms of communication, it is noted by Fox et al., (2020) that good communication and collaboration, across campus and health services and within students' families, are essential to ensure the best outcomes for students experiencing mental health difficulties. It is important to ensure a clear, transparent and timely dialogue between HEIs and internal stakeholders, both staff and students, concerning how to navigate the reopening of campuses and optimise ongoing digital mediation strategies.

"If you communicate clearly and in a timely manner with students, you will bring them with you, and they will trust you, no matter what is happening. They will trust that you have their best interests at heart" (PA-UCD).

"Ongoing regular communication and opportunities for students to provide feedback about the aspects of online learning" (PJ-UCD).

Regarding community enhancement, safeguarding students' social connection (n=5) – expressed through, for example, a sense of "community" (n=3) and "belonging" (n=3) – can be helped by providing resources and supports to engage them in both formal and informal activities.

"Connection is what the students are missing currently and efforts need to be made to create connection within the classroom or outside activity or informal online gatherings" (PB-DCU).

To ensure connectivity it's important that, given the increased reliance on digital communication, students' ability to utilise digital resources is augmented. Building on this, resources should be in place to ensure SAs can effectively integrate technology

into service and resource delivery. This is apparent experientially (n=4) in terms of understanding and enhancing the online engagement experience:

"Ongoing regular communication and opportunities for students to provide feedback about the aspects of online learning which work, and those which add a layer of challenge or difficulty to completing their degree" (PJ-UCD).

"Greater research in an optimum delivery of services in a mandatory online platform would assist both university staff and students alike" (PA-DCU).

It is also evident logistically (n=8) in ensuring students have the necessary resources to partake in technology-based engagement.

"More could be offered to students in terms of technology support- laptop rental, increased financial support" (PA-DCU).

"Sometimes the tech is a bit clunky and a moment is lost and the fluidity of conversation is impacted comparatively to other arenas" (PD-UCD).

Figure One. Student Engagement Matrix

Engagement	Cognitive	Behavioural	Affective	Social	Agentic
Definition	Students' active intellectual investment in their learning and development process.	Students' active and dynamic participation in their learning and development activities.	Students' connection to, and emotional investment in, their higher education experience.	Students' identification and healthy interaction with people within the domain of their higher education experience.	Students' intentional and constructive efforts to shape their teaching and learning experience.
Expression	Self-regulating one's learning and mentally exerting oneself when acquiring, apprehending and comprehending the knowledge and skills underpinning their subject, specialism or profession.	Involving oneself productively in academic and extracurricular pursuits, alongside adhering to academic participation and performance benchmarks.	Connecting with and valuing the role of the higher education experience, including its interactions, outcomes, and applications.	Interpersonally embedding and developing a sense of belonging within one's HEI environment, across different social contexts.	Contributing to the shaping of one's educational environment and experience through sustained collaborative efforts.
Significance	Facilitates a heightened understanding of and appreciation for the content, value and application of academic work.	Enables a systematic and well-rounded approach to learning and development, and meeting designated benchmarks.	Facilitates the formation of bonds with one's HEI and the people within it, which underpin task-enabling emotions, including interest and commitment.	Fosters students' interpersonal integration, relations, and skills, strengthening personal and academic networks.	Enables students to personalise and enrich their educational experiences, directed towards their needs and wants more effectively.
Teaching & Learning Promoters	Delivering intellectually engaging, appropriate and challenging course content and activities. Connecting students to the developmental significance of course content and activities. Providing appropriate supplementary services and resources.	Establishing transparent participation and assessment expectations. Offering dynamic learning and appraisal mediums. Incentivising attendance and participation across different HEI contexts and domains.	Integrating professional development goals, tasks and initiatives into coursework. Creating and communicating a coherent sense of identity within and across programmes, schools and the institution. Monitoring students' performance metrics and needs.	Engaging students in interactive learning activities. Integrating collaborative and group work activities into course assessments. Diversifying the ways and means students can express themselves within their environment.	Creating opportunities for student-centred dialogue and feedback, within and outside of class contexts. Representing student feedback on academic forums. Delivering student-led engagement projects.
Role of Student Advisors	Assist and support students in identifying and communicating their educational needs. Collaborate with students in forming and monitoring academic goals. Liaise with academic staff on addressing students' learning needs.	Identify environmental and personal obstacles to students' participation and collaborate on resolving such obstacles. Provide clarity and direction on organisational and logistical issues. Clarify and communicate student participation benchmarks and goals.	Offer students a non-judgemental and confidential space to express themselves. Ensure student support resources are continuously developed. Oversee the provision of student transition and integration initiatives.	Manage social development and support activities, enhancing peer-to-peer connections. Mediate sensitive and personal issues between students. Create a coherent support network by building inter-service relationships.	Develop and coordinate student leadership activities and initiatives. Provide students with opportunities to communicate their goals and needs. Coordinate ancillary education initiatives such as mentoring, coaching, and sponsorship.
Institutional Outcomes of Digital Mediation	Enhances the availability of online learning resources and materials. Organises and consolidates relevant course information and resources on digital repositories. Reduces dynamic person-to-person interactivity between peers. Impairs the immediacy of learning and ad hoc staff-student interaction.	Provides students with greater flexibility in accessing course materials. Limits the variety of course activities, resources, and assessments. Jeopardizes students' organisation and routine by blurring the line between different spheres of their lives. Impairs transparency and clarity in participation benchmarks.	Provides novel digital communication means to reach out to students. Limits opportunities for person-toperson support dialogue and feedback. Fosters a sense of anonymity towards one's class cohort and higher education environment. Increases concerns about accessing information and navigating course materials.	Increases accessibility of digital student support through pathways. Fosters a sense of isolation due to a lack of dynamic and face-to-face social activities. Impedes students' ability to develop a socially holistic education experience.	Impairs students' ability to interact with staff in real-time and communicate their needs. Prevents students from physically meeting within interactive and organised forums.

Limitations, Recommendations and Future Directions

There are some limitations that the project team have noted in our research to date. The SA model in UCD and DCU is distinctive, particularly regarding SAs' role encompassing advisory, academic and administrative domains and their support within the broader HEI infrastructure. This, coupled with the relatively small sample size albeit including the majority (78%) of SAs working in UCD and DCU, two of Ireland's largest HEIs – impacts the cross-institutional generalisability of the findings. More generally, the organisational structures, mission and mandates of student support arrangements vary across HEIs, particularly concerning resources they can provide students. Recognising these factors is essential when transposing the research findings nationally. Contemporary literature on pedagogical responses to hybrid learning is increasing. To date, the literature on how SAs are responding to the growing integration of digital tools into the pastoral-centric facets of their role is less welldeveloped. This is particularly the case in their responsiveness to recent developments in VLEs and still-emergent hybrid models. Alongside this, while SAs provided valuable insights into how students have responded to this transition, future research that engages directly with students would provide important pedagogical and policyrelevant insights.

Building on the research findings, we have formulated recommendations for HEIs seeking to ensure the effective integration of digital mediation strategies into the student engagement experience.

- Student Supports: To facilitate students' transition back to onsite attendance after periods of distance/hybrid learning, our recommendations include providing campus orientation/reorientation resources, e.g. information sessions and group activities. In addition, the ongoing provision of hybrid support services, both pedagogical and pastoral, is important in attending to students' desire for technology-based communication. Alongside this, as HEIs continue using digital resources, it is crucial that SAs are attentive to students' off-site needs, such as technology access, and have the resources to address these should issues arise.
- ii. SA Supports: Regarding providing SA supports, ongoing access to and technological is education evolving tools important, e.g. workshops/seminars/best practice sharing. Alongside this, SAs' insights into atrisk students can be enhanced through data analytics, e.g. VLE/attendance engagement.9

⁹ An important project direction for UCD LEAP is to connect VLE engagement metrics with SA support and to

assess its cross-campus feasibility and scalability. In January 2022, following a pilot reporting mechanism, UCD LEAP engaged with UCD IT Services and D2L/Brightspace to develop a tool on the DOMO platform to monitor and report students' Brightspace engagement data, thereby strengthening insights and interventions into student disengagement. The report provides weekly programme-level information on VLE engagement, flagging potential student disengagement on two benchmarks: A log-in flag if the student has not logged into the majority of their VLE modules in seven days, and a content access flag if the student's module topic access is <30% of their class peer average. As of the beginning of the 2022-2023 academic year, this tool is being used within the UCD School

iii. Institutional Initiatives: Within a broader institutional context, specific initiatives can help ensure SAs can constructively integrate technology into the provision of student supports. Standardised and consolidated online student platforms, e.g. inter-module connectivity, can create a more seamless engagement experience. In addition, the criteria for 'at risk' student flags, drawing on a dynamic range of engagement information, should be examined. Finally, as students may continue to engage with HEI activity from their homes through hybrid learning, it is essential to re-appraise the extent to which student supports should be cognisant of and attend to students' life, and needs, beyond campus.

Conclusion

In the wake of COVID-19, the hybrid approach to HE engagement has become not simply a means of *supplementing* service provision, but a *necessity* academically, administratively and pastorally. This indispensability is witnessed in the reliance on, for example, LMSs and VLEs. Digital mediation has enabled SAs to maintain student engagement, underpinned by factors such as institutional supports, e.g. information workshops, pre-existing digital architecture and resources, and stakeholders' adaptability to communications technologies. SAs have played a significant role in ensuring that interpersonal engagement has remained a central aspect of students' HE experience despite the lack of in-person interaction and physical attendance.

As HEIs have sought to learn from and move beyond the remote-learning educational environment created in response to COVID-19, digital mediation can offer a pathway to innovating the means and methods of student engagement. Here, it is essential to ask how the lessons learned from delivering services via digital tools shape the design and delivery of student support moving forward. First, it is helpful to understand inperson and digital engagement mediums as existing along a continuum of interpersonal engagement rather than as a strict binary. Nevertheless, while interpersonal support can encompass in-person and digitally-mediated interactions, the ongoing centrality of in-person engagement remains apparent, pedagogically and pastorally. Second, by recognising the vital and interconnected contributions of both these approaches to student engagement and by being attuned to technological innovations within the broader HE landscape, HE courses have a more comprehensive array of insights to draw upon (El Namaki, 2015; Summit Bonnicci & Galea, 2015) through which to manage, monitor and motivate student engagement. Third, meaningfully aligning these interaction mediums within student participation strategies creates holistic learning experiences. By embracing a comprehensive range of opportunities for student engagement via digitally-mediated support, HEIs can continue to enhance service provision and students' psychosocial development across various dimensions (Bowden et al., 2019). It is envisaged that these research insights will contribute to

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of Veterinary Medicine, School of Science, School of English, and School of History, with the goal of continued cross-campus roll-out.

awareness of the distinctive and reciprocal contributions in-person and digitally-mediated engagements can offer to HE students' personal and professional development.

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Appendix One. Participant Questionnaire

Student Engagement

- How would you define "student engagement"?
- 2. What, for you, are the primary ways that students engage with their higher-education environment?
- 3. What is your role in supporting students' engagement?
- 4. From your experience, has the move to online learning influenced students' engagements? If so, how?
- 5. Are there any further resources that your university could offer to enhance or better understand students' engagement, particularly in light of universities' current restrictions on physical presence?

Transition to Digital Mediation

- 6. Before the changes within HEIs in the wake of COVID-19 (pre-March 2020), to what extent did you utilise technology in your role?
- 7. Has your role been affected by the transition to digitally-mediated engagement? If so, how?
- 8. How prepared did you feel to transition to digital service provision? Were there areas where you would have liked greater readiness?
- 9. Have you experienced any challenges in your transition to online/remote support services?
- 10. Has providing support services online/remotely offered you any new opportunities in terms of service provision?
- 11. How robust, in your view, are online/remote tools as a primary mechanism for your engagement with students?
- 12. Since migrating to digital mediation, how would you rate the effort expended in fulfilling your role, as compared with pre-March 2020?

A lot less effort	Somewhat less effort	Broadly the same	Somewhat more effort	A lot more effort

13. How would you rate the amount of time that you work now, compared to pre-March 2020?

A lot less	Somewhat lower	Broadly the same	Somewhat more	A lot more

14. Since migrating to digitally-mediated student support, how would you rate your capacity to provide support services to students, compared to pre-March 2020?

A lot lower	Somewhat lower	Broadly the same	Somewhat greater	A lot greater

The Student Experience

- 15. From your experience, how have students adapted to remote/blended learning?
- 16. How important is physical attendance as a predictor of student formation and success?
- 17. Are there any lessons that you believe your university/Student Advisory Services can learn, following the experience of transitioning to online/remote delivery of services?

Appendix Two. Survey Responses: Quantitative Feedback

To offer further context on insights from the thematic analysis, the charts below provide a descriptive summary of participants' responses to survey questions on the effects of the migration to digital mediation strategies. They focus on specific aspects of role fulfilment, including effort expenditure, time expenditure and capacity for providing services.





