UCD Teaching and Learning

Academic Advising

A Literature Review

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Preface

As UCD begins to implement its *Rising to the Future Strategy* and allied Education Strategy, planning for a future based on what we are learning from the COVID-19 context and our commitment to providing a holistic and student-centered educational experience to a growing population of domestic and international students, there is a significant policy gap with reference to the formalised provision of academic advice to our undergraduate and taught graduate students. The need for such a policy is to ensure that all students are provided with high-quality academic support and advice through a proactive academic partnership with mutual expectations of faculty and students.

Our students currently have access to a range of advice and support services, with some operating at Programme/School level and others provided centrally by the University. Notwithstanding the range and breadth of supports available to our students, the consensus is that there are gaps, such as:

- Personal academic advice to students at different points in the student lifecycle.
- Academic advice to support individual students with decision-making and goal setting based on their academic performance, interests and talents.
- Guidance and assistance in navigating programme structures, making choices relating to major/minor/specialism options.
- Academic advice and support for students considering withdrawal/transfer from their programme.
- Academic advice relating to professional practice, clinical placements and internships.
- Support to assist students to become independent learners and to address any academic issues as they arise.

A Working Group has been established, chaired by the Dean of Undergraduate Studies, to inform university-wide policy on academic advising. The Working Group is committed to ensuring an evidence-based approach to policy development that will be informed by relevant literature, international best practice and findings from UCD initiatives in this space. Informed by the work of NACADA[1], academic advising is positioned as an integral part of the teaching and learning mission of higher education. A research assistant, Ciara Jennings, has been co-opted to undertake this literature review which explores the purpose of academic advising and its theoretical underpinnings, different approaches and models of advising, the students' experience of advising, the role and development of faculty advisers, and the potential to leverage technology in support advising activities.

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[1] NACADA: The Global Community for Academic Advising

1. Introduction

An exploration of the international literature around academic advising (AA) showed that the United States and the United Kingdom have respectively produced the largest bodies of work. Contributions to research from Australia, where AA has a less defined role, and the UAE where a model similar to that of the US is emerging, are also present in the literature. Overall, findings regarding effective practice, desired outcomes, and challenges are aligned across the bodies of research. The US has gone through many iterations of the advising process, and like institutions universally, is adapting and developing to the ever-diversifying student body and growing complexities associated with the student experience across the board (McFarlane, 2016; Walker, 2020).

Examining AA, with a focus on students and faculty advisers, the dominant themes which emerged from the literature, and will be presented in this review, are as follows:
- paradigms of approaches which inform wider objectives
- challenges faced regarding institutional organisation of academic advising
- common issues and obstacles to advisers providing effective quality AA
- student expectations and experiences of AA
- the rapidly evolving role of technology in the field

The perspectives of academic advisers and personal tutors are presented in numerous small scale institutional studies. Although the scale of the studies must be considered a significant limitation, many reflect trends in the literature and present informative insights.

2. Origins

AA became a conceptualised practice in the US from the 1970s in order to help students navigate the new higher education (HE) elective system (Khun, 2008). Advisers began comparing practices and the National Academic Advising association (NACADA) was established. In 1972, seminal articles by Crookston and O'Banion conceptualised the ways in which AA is carried out, and established the terms 'developmental' and 'prescriptive' advising which remain central to US practice today.

In the UK context, personal tutoring (PT) arose from the Oxford and Cambridge *in loco parentis* moral tutor system used since the sixteenth century. Due to its history, the scope of the personal tutor role is wider than that suggested by the NACADA definitions (Grey and Osbourne, 2018, p.286). However, PT has evolved and adapted considerably since its origins in the University of Oxford's tutorial system (Walker, 2020, p.2), and has seen a renewed interest in recent years from UK HE institutions (Grey and Osbourne, 2018). Much of the research and literature from the UK makes reference to the UK Advising and Tutoring association (UKAT), which is 'a body of professional practitioners and researchers interested in all aspects of student advising and personal tutoring' and is allied with NACADA (UKAT, 2021).

2.1 Theoretical Underpinnings

In seeking recognition as a legitimate academic pursuit in the US, some have sought an overarching theory of AA. Yet, it is widely established that there is no single theory of AA (Hagen and Jordan, 2008). AA approaches and models have drawn upon many theories from a broad range of disciplines; from education, psychology and sociology, to philosophy. Similarly, the lack of a universal definition is subject to discussion in the literature. Both NACADA and the Council for the Advancement of Standards in Higher Education (CAS) have defined advising as a teaching and learning activity (White, 2015, p.273), and there is an overall consensus that AA can serve to maximise the student experience and professional life beyond HE, providing a source of support and information which they otherwise may not have access to.

3. Approaches to Academic Advising

The theme of 'approaches' is ubiquitous across US literature and the subject of considerable debate. While PT literature does not subscribe to the depth of analysis regarding approaches, rather referring to three 'models', one of which dominates the practice, there appears to be some interchangeability between the terms style, approach, and even sometimes theory - as Hagen and Jordan (2008, p.18) refer to 'developmental theory'. This disparity in usage is evident in a remark by Grites (2013, p.13), in reference to one of the two most frequently employed frameworks: "Developmental academic advising is not a theory. It is based on developmental theories and perspectives, but the practice is an advising strategy, a method, a technique, an approach, a way of doing advising."

3.1 Developmental Advising

The developmental approach, coined in 1972 from the seminal works of O'Banion and Crookston, is fundamental to practice today (Lema and Agrusa, 2019). The dominant assertions from the literature regarding this widely used approach are as follows:

- It is a student-centred approach which takes a more holistic view of student development in HE.
- It is largely favoured by students due to the more personalised and supportive relationship it fosters (Holland et al, 2020).
- The model encourages student reflection - a lack of which is problematic to effective progression (O'Banion, 1972).
- The academic advisor and the advisee are partners in educational discovery, in which responsibility is shared between the participants (Hessenauer and D'amico Guthrie, 2018. p.15).

Common elements cited in defining developmental advising include:

- A process which encourages self-reflection.
- Focus on setting and achieving goals through a collaborative process.
- Student engagement in using problem-solving, critical thinking and decision-making skills.
- An understanding of shared responsibility in the advising process.
- Fundamentally establishing a rapport from which trust is built.

NACADA cites the elements of Developmental advising as: exploration of life goals; exploration of vocational goals; program choice; course choice; scheduling of courses (NACADA, 2018).

The holistic view of student development is also more likely to affirm a sense of connection to the institution than through the one-way directive approach of purely prescriptive advising; this approach also holds great potential to increase minority student engagement and sense of belonging (Harris, 2018).

3.2 Prescriptive Advising

Prescriptive advising, also coined by Crookston (Lowenstein, 2005), was the original approach to academic advising (Fricker, 2015, p.4). The dominant assertions from the literature regarding this widely used approach are as follows:

- Prescriptive advising is compared to the doctor-patient dynamic (Appleby, 2008, p.85).
  - The adviser provides the student with the information needed in order to navigate the more administrative side of their academic experience.
- In some circumstances students prefer to have a prescriptive advising experience, to receive a comprehensive range of required information once and without feeling the need for multiple sessions and in-depth personal discussion which developmental advising demands (Harris, 2018).
  - Some research suggests that incoming 1st-year students prefer or only need prescriptive advising, wanting primarily to know what classes they need to take their first semester, while developmental advising is more useful for further into college trajectory (Robins, 2012, p.220; Grey & Osbourne, 2020).
  - In contrast, there are many who posit that developmental AA is most crucial at the beginning of University (Harris, 2018) in order to foster integration, a sense of belonging, and retention.
- In light of continuously diversifying student populations, the practical nature of prescriptive advising should not be overlooked - in spite of a general student preference for developmental advising.
- The instructive nature and linear communication which characterises prescriptive advising, with the responsibility solely on the adviser, is potentially suited to the

intervention of technology to fulfil relevant responsibilities to deliver information of an academic description (Lowenstein, 2005, p.66). A general consensus among all veins of the literature, particularly in more recent thinking, cites a need for flexible approaches to AA, as opposed to a one size fits all view, in light of the rapidly diversifying student populations and the growing complexity of the student experience, in addition to the tensions experienced regarding time and resource constraints (Walker, 2020; Stuart et al., 2021).

3.3 Other Advising Styles and Approaches

- **Advising as Teaching -** Lowenstein (2005) challenges the developmental approach by asserting that advising though a learning-centred paradigm better explains the similarities between advising and teaching. This approach sees the adviser's work taking a central role in enhancing a student's education and Lowenstein (2005, p.65) shows that 'the paradigm allows the advisor's role to be elevated to a position of the utmost importance in higher education'. This approach may suit institutions which employ primary role advisers, as opposed to those based on the UK model of faculty personal tutors, who already hold various responsibilities and are not available enough to take such a central role.

- **Proactive advising -** formerly known as 'Intrusive advising' (Grites, 2013, p.12). Deliberate personal outreach from advisers to provide information or support, often as a direct response to an identified academic crisis (Williams, 2007). This approach also tackles student reluctance or hesitancy to initiate contact with an adviser - often due to lack of understanding.

- **Further approaches cited in the US literature -** many take from the developmental and prescriptive models: strengths based advising; Coaching; Group Advising; and Peer Advising.

3.4 Figure 1: Graphic Organizer for Advising Frameworks, Structures, and Approaches.

NACADA, 2021
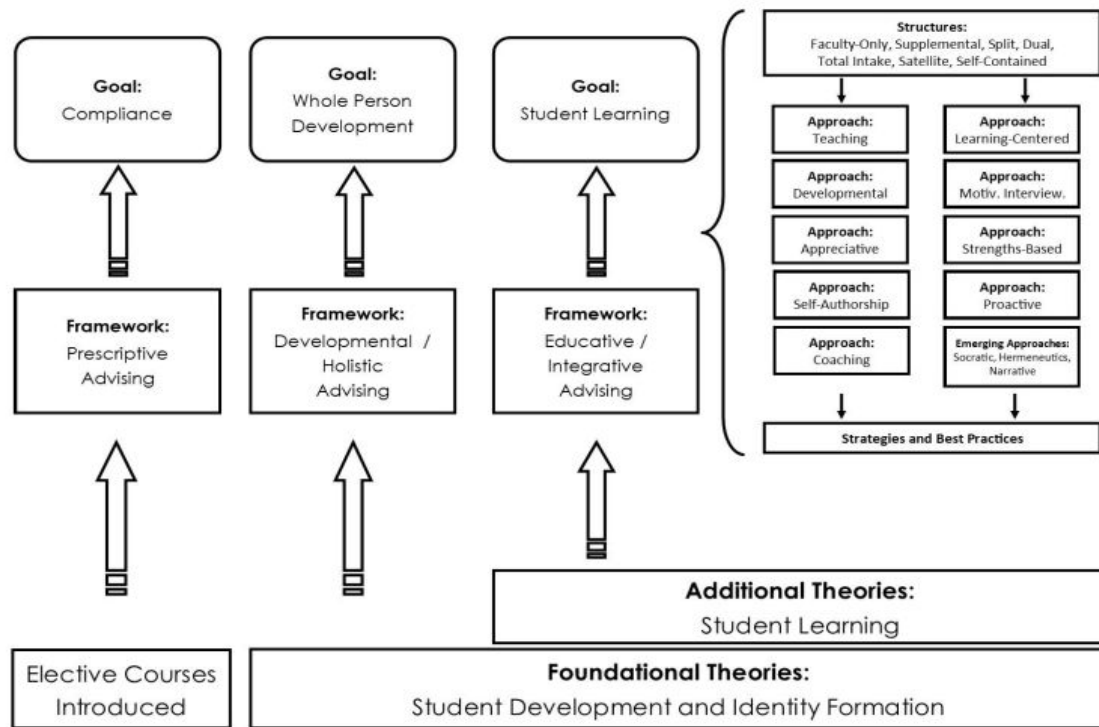
4. Organisational Models

Institutional organisation of AA in the US is strikingly more established in comparison to PT in the UK. The way in which AA is organised in a HE institution is often referred to as a 'model' in the US literature, and there is noted to be no single approach (Hagen & Jordan, 2008), nor one which is deemed most effective (Moore et al., p.5), as all exhibit strengths and weaknesses. King (2008) highlights the classification of three broad approaches of the organization and delivery of advising:

1. **Decentralised models**
    a. Faculty-only model where students are assigned a faculty adviser from their department and there is no central advising office.
    b. Satellite model, in which each academic unit has an advising office, from which primary role advisers operate.
   - Strengths: Its support of departmental autonomy and variation in advising approaches in response to local contexts, which is preferable for students due to the subject area expertise of faculty members.
   - Issues: Ensuring adequate communication and coordination across advising units.

2. **Centralised models**
   One central advising office, with primary role advisers in turn maximizing adviser resources and coordination.
   - Strengths: Having trained advisers who prioritise AA, easy accessibility to a central location, increased ability to provide training, evaluation and rewards more easily - all of which are suggested to contribute significantly to adviser engagement (King, 2008, p.245).
   - Issues: Student frustration stemming from a lack of advice and knowledge specific to their discipline, as this model is centred on primary role advisers and not faculty advisers.

3. **Shared models**
   The shared advising structure involves a combination of decentralized and centralized components for a hybrid approach (Barron and Powel, 2014, p.14). There are four combinations of central advising offices and faculty advisers or academic unit advising offices (Moore et al., 2018; Fricker, 2015).

The decentralised model offers a potentially more informative and personalised AA experience due to the expertise of faculty in the students' field of study. Institutional studies highlight a range of challenges faced in relation to interdepartmental coordination and communication, which can negatively impact the student experience within this model. One study examined the decentralised model of AA across the multiple campus sites of California State University (Moore et al., 2008), where staff felt the decentralised model 'made sense' but lacked coordination. A pervasive lack of clarity across their campuses regarding those ultimately responsible for advising and the roles different advising units and advisers are expected to play was highlighted, to which a lack of accountability for advising processes and outcomes was attributed.

Implementation of the following recommendations was advised to optimize the decentralised model:

- Establish advising councils, committees, task forces, and summits to build community and align plans and efforts.
- Utilisation of eAdvising tools to support workflow and analytical functions across the campus; develop CPD.
- Creation of cross-functional advising teams in colleges, where specialized staff from different units collaborate to address students' needs more holistically.
- Employment of a senior administrator to coordinate campus wide advising efforts across a decentralized environment (Moore et al., 2018, p.16).

CAS (CAS, 2006) indicates the importance of purposeful structure and effective management; and while the organisational structure is part of the broad range of considerations concerning AA within an institution, and arguably secondary in nature to the quality of the advising

practice (Fricker, 2015), it can serve to facilitate the consistent quality of delivery across campus.

5. The Purpose of Academic Advising

Many emphasise the importance of not labelling AA as a service but acknowledging that it is as much a part of an institution's educational mission as is disciplinary instruction (White, 2015). The principal purposes of AA identified in the literature are:

- Student engagement and retention, in turn decreasing attrition and boosting graduation rates (Moore et al., 2018, Walker et al., 2017; Hessenauer and D'amico Guthrie, 2018.)
- Providing clarification around reason for study and the nature of the curriculum.
- Helping students to avail of the variety of experiences a HE institution offers (White, 2015).
- Connecting the entire curriculum with students' individual goals, and when formally structured, it can support a broad range of learning outcomes, helping to support the institutional mission (Hu, 2020).
- Assisting in the adjustment from school to an HE environment (Chan et al, 2019; Watts, 2011; Yale, 2019; Harris, 2018.); thus, first year students have a greater need for AA as early as possible (Young-Jones et al.,2013).

6. The Unique Value of Academic Advising

AA's unique contribution to the student experience lies in the provision of one-to-one student-faculty interaction. Holland et al. (2020) describe advisers as 'individuals who are able to assist socialization into the HE environment, aid with the navigation of the HE maze, including developing the academic skills and knowledge to succeed and guiding them to make thoughtful decisions about future careers' and terming them 'cultural navigators'. The holistic approach to goal-setting and planning engages students' development of rational processes, critical thinking and reflection skills, which facilitates self-discovery, helps students to make sense of their education path and can serve to build self-esteem (Harris, 2018; Chan, 2019; Megyesi Zarge et al, 2018).

The significance of a personal and consistent relationship as a point of connection, which quality AA hold the potential to create, is linked to multiple benefits; the most significant being:

- Student satisfaction – AA impacts more than any other type of involvement in HE, and is noted to be key in predicting student success (Young-Jones et al., 2013).
- Fostering increased student engagement and in turn a sense of connectedness to the institution (Young-Jones et al., 2013; Hart-Baldridge, 2020).

- Powerful learning opportunities outside the classroom are facilitated through building meaningful relationships (Young-Jones et al., 2013).

Furthermore, there are indications that certain cohorts stand to benefit significantly from the support provided by AA in aiding the transition to HE; notably, those from low-income households and first-generation university students. Research in the US demonstrates that AA increases chances of graduation among historically marginalised cohorts of students (Walker et al., 2017). Nonetheless, its impact is greatly dependent on structure, content, intensity, and advisor availability (Hu, 2020. pp. 914-915).

7. Objectives

The cited objectives of AA are numerous. Within the broader purposes of retention and supporting student success, quality AA from a developmental perspective encourages self-reflection in order to make sense of one's educational path and future ambitions, helping to develop higher order thinking skills, further to supporting the navigation of the institutional systems and processes. Additional objectives include:

- Meeting student expectations, satisfaction and aspirations regarding employability and attainment in a climate, particularly in the UK, where HE is shifting towards marketisation and massification (Holland et al., 2020, p.128).
- Introducing the student to campus resources.
- Tracking student progress.
- Assisting in student personal development.
- Developing a rapport with the student (Hessenauer and Damico Guthrie, 2018).

Hu (2020, p.915) notes that often professional AA is only offered at surface level and its positive developmental impact hindered by lack of student reflection. If engagement of both the adviser and advisee is achieved, AA objectives of maximizing student experience, creating meaning, focus, and purpose within a HE trajectory, and establishing goals in the short and long term can be successfully met. The belief that high quality AA goes far beyond helping a student to make course-related decisions, and, that academic advisers can potentially build social and emotional well-being in addition to supporting academic and career goals, predominates throughout the literature.

8. Who Fulfils Advising Responsibilities?

The roles of AA and PT are broadly synonymous (Grey and Osbourne, 2018). Although the roles of primary role academic adviser, faculty adviser, and personal tutor exhibit a range of nuances, they largely serve to fulfil similar responsibilities. Significantly, McGill et al. (2020, p.9) state that "Personal tutoring and academic advising, and our practice and understanding of it, is informed by the regional context in which it is practiced." Walker (2020) observes that

AA and PT are, at the core, relational processes - with compassion and valuing of students central to the findings, which also emphasise the idea throughout the literature that a solid relationship between an academic adviser or personal tutor and a student forms the basis of all the interventions that may be applied in AA and PT.

Defining the parameters of PT is somewhat more challenging than defining those of AA as a result of the 'pastoral care' model which is integral to many perceptions of the practice due to its history (Grey & Osbourne, 2020). The literature suggests that a personal tutor, who is an active member of academic staff, provides holistic guidance on an academic and personal level including:

- Information about higher education processes, procedures and expectations.
- Academic feedback and development.
- Personal welfare support, referral to further information and support.
- A relationship with the institution and a sense of belonging (Grey & Osbourne, 2020, p.285).

8.1 Challenges to Faculty Advisers

Although many of the identified challenges faced by both primary role and faculty advisers are comparable, for the purpose of this literature review those attributed to faculty advisers, predominantly personal tutors, will remain the focus of analysis. The ubiquitous challenges faced in this context, presented in the existing literature are:

- A general consensus that among faculty there are mixed levels of interest and expectation around advising responsibilities (Hart-Baldridge, 2020, p.10).
- Faculty advisers also express concern that AA detracts from heavy workloads of teaching, research, and service (Hessenauer and D'amico Guthrie, 2018. p.28).
  - In turn, issues with adviser availability due to high adviser-advisee ratios and additional responsibilities.
- In the UK almost all academic staff are asked to undertake the role of personal tutor. The widely employed pastoral model can be problematic in a context where it is assumed that the role will 'come naturally' to any academic staff member (McGill et al., 2020).
  - This indicates a need for further research into the impacts on faculty advisers of such responsibilities in addition to preparation for such responsibility.
- Professional boundaries of personal tutors (Walker, 2020).
  - Questions relating to the parameters for the support they are expected to provide due to difficulty disentangling from a student's personal life, as personal issues can 'spill over' into the academic context (Grey and Osbourne,2020. p.290).
- Systematic obstacles to quality AA which inhibit consistent success include:
  - Insufficient training; training which does occur is mostly informational (Xue Kohlfeld et al, 2019)
  - Need for clearer frameworks which clarify expectations.
  - Lack of time to fit in quality AA due to heavy workloads.

- Negligible recognition and compensation for performing such duties.
- Lack of coordination or connection between advisers and departments, resulting in student frustration due to misinformation and a lack of consistency in messaging.
- There is often a lack of specialist knowledge from advisers for students in specialised areas such as nursing and engineering (Walker et al., 2017. P.47).

8.2 Strategies to Address Challenges

The question of 'buy-in' from faculty members (Walker, 2020) is critical in order to create an AA system in which all stakeholders are engaged and stand to derive benefit from. Suggested ways of facilitating faculty engagement include:

- Establishing clear expectations in relation to the responsibilities of the role (Grey and Osbourne, 2020. p.290) to provide a workable provision.
- Planning the time within a faculty adviser's workload through a predetermined agreement - see working hours agreement (Morillas & Garrido, 2018. Table 1).
- Training which develops skills, establishes professional boundaries, and outlines protocol for referring students to other support services (Stuart et al., 2021).
- Development of a network amongst faculty advisers to provide support and advice regarding academic advising (McFarlane, 2016, Walker, 2020).
- Policies which recognize advising as a significant responsibility for professors, establish the importance of advising to the institution, and reward the faculty advisers for engaging in this important reflective learning work (Hart-Baldridge, 2020, p.12).

9. Student and Faculty Adviser Experiences

The literature reflects generally aligned experiences in HE institutions internationally. Many studies, quantitative and qualitative, recognise the limitations of time and scale. Nonetheless, when examined together the findings provide a useful insight into experiences of students and advisers alike.

The following tables illustrate the various lines of enquiry, feedback, impacts of pilot studies within institutions, and general preferences and issues held by students and faculty advisers/personal tutors respectively.

9.1 Table 1: Student Experiences

Authors	Institution	Focus of Study	Scale	Main Findings	Other
Prowse et al., 2020	Unknown (UK)	Student perceptions of personalised support to create a design tool for student engagement with a system of personalised student support via tutoring.	130 students (informal conversation) 10 students (written detail of experience)	5 design considerations of a **personalised student support system** are: - Purpose - Structures - Communications - Perceived sincerity of the support proposition - Perceived value (to students & staff)	
Yale, 2019	UK university in the North West of England	A focus session with first year undergraduate students explored expectations & experiences of PT from the student perspective.	11 participants (10 females and one male) 1st year undergraduate psychology students	Developing a **positive and genuine relationship** found to 'buffer' against some of the **first year challenges** and **contribute towards a sense of belonging** - genuine caring most valued by students **Poor PT is worse than no PT.** Most participants felt that they used a mixture of previous experiences, **guesswork**, and trial and error to work out what their PT was for.	Those participants who had a positive experience of their PT tended to use them more frequently Tutors and students need to be prepared for their roles as early as possible, with explicit articulation of expectations of the roles

Ghenghesh, 2018	British University in Egypt	Identify factors (negatively) affecting PT system in the university	309 students from different faculties	Factors which impact PT system: the **students' lack of awareness** of the system and personal tutor role **Lack of contact** and meetings between both parties	Recommended change from centralised to decentralized system Establish a central support system for students with learning disabilities and also a counselling service.
Walker, R. et al., 2017	US large Great Lakes state institution	Students Perceptions of Academic Advising	162 first year students	4 overarching themes: **student difficulty making the distinction** between roles of high school guidance counsellors and postsecondary academic advisers, **adviser communication**, student **desire for a relationship**, and **adviser accessibility**	Institution employs full-time primary role advisers (not faculty members as advisers)
Gaines, 2014	University of West Florida	162 students, 118 from online certification programmes	Student preferences & level of usage with respect to technology as a part of the academic advising experience	Strong **student preference** for accessing important information via student **email** (98.8%) as opposed to social media or podcasts. **Face-to face appointments preferred**	
Morillas and Garrido, 2018	The Universitat Rovira i Virgili (URV)	After 3 years; 6,883 students tutored 473 tutors	Implementation of a Tutorial Action Plan (TAP) through a virtual tutorial space	**Students and tutors appreciate e-tutoring** due to individual tracking & makes group sessions more individual. However, most prefer face-to-face tutoring.	Tutee-Tutor ration is 15:1 2011-2012 13 training sessions for tutors, attended by 134. All degrees at the URV plan

				Specific **training programs are necessary** - technology and methodology	for 25 hours of guidance with the tutor and include other agents in the process when necessary.
				Students only call a meeting on their **own initiative in a very low percentage** of cases (29%).	Implementation is very different in each faculty/school

9.2 Table 2: Faculty Adviser Experiences

Author(s) & Date	Institution(s)	Focus of Study	Scale	Main Findings	Other
Walker, B, 2020 (a)	Multiple (UK)	Significance of pre-existing standards Necessity for, & potential benefits of, distinct tutoring standards Extent to which they felt tutoring to be valued, rewarded, and recognized	57 responses were received from participants representing 26 UK universities.	Almost 75% believed it is **necessary for professional standards for PT** & advising to be established A perception of PT as **under-valued, under-recognized, & under rewarded** at both institutional & sector level emerged Theme of **professional recognition** being wanted and needed emerged	
Woods, 2020	University of Warwick (in 2018)	Development and design of an interactive digital training resource for personal tutors in the Arts Faculty		Demonstrates the **value and appreciation of online training and resources** for supporting personal tutors **Online training often preferred to face-to-face** training due to flexibility Substantive **improvement in student satisfaction** concerning "academic support" in the subsequent year	Developed within moodle PT is organized locally by departments. Staff engagement with institutional training more likely successful if delivered through digital systems which staff are already familiar with and easy to access
Stuart et al., 2021	University of Cumbria	Faculty advisers' PT role perceptions &	20 academic Staff across 2	**Execution** of the PT system by personal tutors **varied enormously**	It was identified that 'time is a factor' in delivering the provision

		practice	University departments	Consistent **lack of policy knowledge** Recognised **need for relational & communication skills** Acknowledgement of the **challenge of managing personal tutoring** within the Workload Allocation Model	No induction or training meant staff feel unsure if they are practicing PT properly Useful compilation of practical recommendations stemming from issues identified
Ghenghesh, 2018	British University in Egypt	Identify factors (negatively) affecting PT system in the university	76 academic staff 14 teaching assistants	**'Buy in' & the qualities** of the tutors impacted PT **Length of time taken to disseminate information** to tutees impacted PT	
Walker, B, 2020 (b)	University of Lincoln - four colleges	Impact of developmental support on Personal Tutors	8 Personal Tutors	Tutors' **perceptions of their effectiveness** in the role **varied** More **training and support on the pastoral side** of the role needed according to tutors. Perceived **confidence & competence was increased, & role confusion reduced** by providing definition & structure Positive impact of certain **professional development practices**: one-to-one conversations & coaching.	Approach and early intervention aided effectiveness Issues measuring the impact/effect, causal factors, limited confidence impeded effectiveness 50% of responses showed importance of informal support from colleagues
Hart-Baldridge, 202	A US mid-western institution	Faculty Adviser Perspectives of Academic Advising	11 faculty members	Faculty consider their greatest advising responsibilities to be: Fulfilling graduation requirements;	**Faculty advisers' challenges**: navigating software, AA as an isolated process, unclear

				explaining graduate school & career exploration; teaching students to navigate systems; empowering students.	expectations, & observe workload inequity **The majority incorporate holistic or developmental advising** into their AA approach
C.Y Chan, 2015	School of Nursing, The Hong Kong Polytechnic University	An exploration of participants' experiences (student and faculty advisers)	5 Academic Advisers	**Lack of time** and **personality mismatch are problematic** in mentoring relationships. Need to **encourage first year students** to have more input in the relationship	Advisers must also have the ability to look for & handle freshmen's personal and psychological issues

10.   Technology in Academic Advising

The potential for technology to both increase student engagement in AA and facilitate a more efficient practice is ever increasing. The literature suggests that the technology must be carefully selected and used alongside a face-to-face advising experience rather than replacing it (Grey & Osbourne, 2020, p.290). Although the importance of maintaining personal human contact is central to the AA experience, Gaines (2014) suggests that in light of the current generation of students' uninterrupted access to online resources and information, their expectations transfer to AA - which would make a technology-integrated AA system preferable.

10.1 Means and Models of Technology in Academic Advising

For one-way flows of information there are those who advocate for the use of everyday technologies which can also be leveraged to connect students to supports even prior to seeing an adviser (Lawton, J., 2018, p.39). These technologies include:

- Text
- Instant chat
- Mobile application

Other more robust and versatile platforms and tools which help evaluate student learning and potentially generate data to inform future learning are:

- LMS (learning management systems) or VLEs (virtual learning environments), e.g., Moodle.
- e-Portfolios - which are a powerful tool for capturing student progress where students learn to apply reflective thinking to their experiences. The e-portfolio makes explicit the lifelong learning path and professional career trajectory of each individual (Steele, 2018a; Morillas and Garrido, 2018).

The additional use of early warning systems signal alerts to academic advisers to indicators of student disengagement, for example failing exams/assignments, failing to register for courses on time (Steele, 2018a).

Students' preference for receiving important information from an academic adviser was predominantly via e-mail, while, conversely, disinterest was expressed in receiving announcements or interacting via social media platforms such as Facebook, Twitter, and also podcasts (Gaines, 2014, p.46). It is advisable to review and assess student preferences regularly to inform advisers and maximise engagement, and consequently generate positive outcomes.

10.2 Blended / Flipped Advising

Many of the routine (one-way flow of information) and transactional aspects of advising, relating to operational and administrative elements of a HE institution, are suited to flipped learning - a methodology which has gained traction in recent years. Flipped advising utilizes a pedagogical approach, similar to that of a flipped classroom, in which students preview material, complete self-assessments and prepare their educational plans before the advising session through varied multimedia resources.

Consequent benefits of blending online prescriptive learning and reflection with face-to-face meetings include:

- Enabling advisers to dedicate more time and energy to fostering an adviser-advisee relationship building (Lema & Agrusa, 2019; Hu, 2020) by alleviating the burden of more prescriptive tasks.
- Engaging students in self-assessment and planning activities, facilitating a reflection process before meeting with an adviser, and potentially enabling a more effective, deeper engagement between adviser and advisee (Steele, 2018a; Grey & Osbourne, 2020).
- Freeing up time to focus on the application of the information learned prior to the meeting (Amini et al., 2018).
- Increased potential for positive outcomes by providing a structured approach for students to hone in on their pursuits, academic progress, and areas of weakness (Amini et al., 2018).
- A self-directed flipped approach allows the student to control the time and pace of activities (Lema & Agrusa, 2019), allowing greater flexibility for engagement.

The literature indicates that flipped advising can add significant value to AA as students work through informational modules online. Overall, this blended approach is advocated as the most effective use of time and initiating student engagement (See Amini et al., 2018 Table 1).

10.3 Challenges Presented by Technology

Primarily, the need for training for those in advising roles due to challenges navigating software and data is striking (Hart-Baldridge, 2020; Moore et al., 2015). Steele (2018a) advocates that technology training should be undertaken within the broader conceptual framework of advising as teaching; technology training for advisers should not occur in isolation from the informational, conceptual, and relational components of training (Steele, 2018a, p.320) - serving to overcome the challenge of faculty advisers viewing academic advising as an isolated process (Hart-Baldridge, 2020).

Additional challenges relating to data management and data use are also cited; using data to identify student success requires training (Moore et al., 2015), and as data is generated by the tools and is collected it is important to also get data into the hands of those who can use it, from frontline advisers to senior administrators (Megyesi Zarge et al., 2018).

The need for a considered process in the selection of technology is paramount, which, as highlighted, must support the learning outcomes of the institution, its missions and goals (Steele, 2018a; Gaines, 2014).

11.   Conclusion

The purpose of this literature review has been to inform the Working Group by contributing to an evidence base which will help to develop a set of AA policies and establish a system of faculty-led academic advising in UCD.

The research demonstrates unequivocally that AA has the potential to positively impact the student HE experience. In addition to assisting with the navigation of programme structures, making course-related decisions, and fostering a sense of connection and belonging to the institution, AA can help students to develop a clearer understanding of their present and future paths, while fostering overall personal development and resilience. These outcomes support the UCD vision for graduates' holistic student-focused educational experience, in addition to aligning with the second core objective in particular, which aims to prepare graduates to thrive in present and future societies. In the context of the increasingly complex student experience, and the sociocultural and economic pressures on current undergraduates, the need for effective student support has never been greater (Yale, 2017).

A number of key recommendations have emerged from the literature which the Working Group may consider in order to facilitate high-quality effective AA within UCD:

- The advisees' need for specialised advice relating to their field of study suggests that a decentralised model is most effective regarding student needs, which are inclined to differ according to the academic subject.
    - An AA framework in which students are assigned a faculty adviser from their own faculty is highly preferable; thus, coordination and consistency of AA policy, protocol, policy and delivery across faculties should be paramount.
- When considering approaches, there is a place, and a necessity, for both prescriptive and developmental advising.
    - The former may be suited to an online 'flipped' format, leaving more time for developmental rapport building in one-on-one meetings which has been shown to be imperative in facilitating effective and meaningful AA.
    - A blended online/face-to-face approach has been proven to potentially increase student engagement and alleviate adviser workload, while informing students as to the objectives and purposes of AA prior to a meeting.
- Policies which recognise and reward faculty engagement with this vital activity should be developed, which in turn establish the importance of AA to the institution.
- The provision of clearly defined expectations, responsibilities, and professional boundaries for faculty advisers relating to pastoral care are of great importance.
    - Additionally, protocol for referring students to other campus professional support services, when and if necessary, should be established.

- Due to the nature of the work, AA responsibilities may not be suited to or appeal to all academic staff. Thus, it may be positioned as a potential form of service within a faculty member's workload - to which sufficient time and reward is allocated (One study suggests integrating 25 hours over the course of an undergraduate degree programme).
- Adequate skills-based training, for example in pastoral care and technology, and the development of a support network amongst advisers is necessary to ensure a consistent level of quality support and content delivery.

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