Postgraduate Pedagogies Journal

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Postgraduate Pedagogies is an open-access journal devoted to articulating and sharing the perspectives of graduate teaching assistants (GTAs). We publish contributions that convey the experiences, reflections, and analyses of current and recent GTAs, those who work with GTAs, and those who support them. The journal offers theoretical reflections as well as empirically grounded articles and case-studies.

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Foreword

When our postgraduate researchers choose to teach, we should show their value.

Kay Guccione, University of Glasgow

The doctoral experience is characterised by uncertainty, and the need to make choices in an unknown territory (Albertyn and Bennet, 2021). Beginning with the setting of a novel research question to which the answer is by its nature unknown, it is from the outset a process of unique discovery. This necessarily involves a steep learning curve in which postgraduate researchers must, at speed, assimilate both the disciplinary knowhow required to engage in the processes of research as a robust practice, and at the same time become familiar with a vast and growing range of existing research so that they may communicate how their study adds meaning to the sum of knowledge to date. Further, they must learn to get the 'job of research done', learning how to operate within a large organisation, to navigate systems, to teach, collaborate, and innovate. Along the journey they must become familiar with the markers of career progress and esteem and build the foundations of a career as what Pitt and Mewburn (2016) call an 'academic super-hero': a multi-talented, always ready and available worker. An exciting time certainly, but without time for reflective sensemaking and a

clear framework for how to gradually succeed with these weighty challenges, this can be experienced as an overwhelming responsibility, rather than an exciting opportunity for discovery and growth.

Whilst still carrying the 'study' label, the doctorate's enquiry-based mode requires a very different approach to study and the letting go of previously honed ways of engaging with learning. This 'significant transitional leap' is also characterised by uncertainty as new self-governance strategies are constructed in parallel with the building of disciplinary knowledge (McPherson et al, 2018). These new strategies must respond to the challenges of the doctorate having fewer landmarks and milestones through which to gauge progress along the course of study. It is more independent, a solo endeavour, and a lonelier journey requiring constant attention to self-motivation. It is more subjective in terms of what is 'good', and what is 'enough', and some postgraduate researchers can struggle, without the reassuring familiarity of modular working, numerical indicators of quality, and regular validating feedback to guide their development (Mantai, 2017).

The list of challenges above may lead you to ask, 'if this is a common experience, is a doctorate worth doing?'. Research shows that, yes, it is worth doing. In addition to the explicit value of gaining the degree, research by Bryan and Guccione (2018) documented the reported personal and professional benefits of gaining a doctoral degree, with the gaining of teaching experience described as a skill and career boosting

benefit. A key message from their research being that much of that value is derived through reaching out beyond the project and disciplinary boundaries to engage with communities, opportunities, and the informal learning that is offered by these. As is documented in the collection of articles herein, a doctorate is rich with such hidden curricula (Elliot et al, 2020). This includes new insights accessed through the act of teaching, in developing engaging spaces, innovating with and from colleagues, peers and students in the online and physical classroom, creating safe spaces, supporting mental wellbeing, and engaging in shared critical reflection.

Learning to teach well and engaging with a diverse range of postgraduate teaching opportunities, is commonly positioned part of a holistic Researcher Development offer, and is specified as a desirable skill-set on the Researcher Development Framework (Vitae, 2011). Teaching provides researchers with opportunities to contextualise and reinforce disciplinary knowledge and understanding and offers an array of benefits such as improved confidence, interpersonal skills, and a sense of belonging (Alhija and Fresko, 2019). If well supported by specialist Educational Development colleagues as part of our institutional strategies for learning and teaching (Hill et al, 2019), it also offers the opportunity to gain a solid theoretical understanding of how students learn, what motivates them, and the chance to apply that in practice in the classroom. Experience of teaching as a postgraduate therefore offers an ideal early access point into

an academic career path. In addition to this, postgraduate teaching should also offer payment to the researcher, in compensation for their work for their university. It is, on the whole then, an attractive opportunity for professional development if supported and valued appropriately by the institutions that benefit from enabling such skilled teachers. Yet sector trends document rising casualisation of academic work and declining career opportunities (UCU, 2019), exacerbated by the Covid-19 pandemic, means that postgraduate teachers have become precarious workers. Recent industrial action in the UK related to casualised and devalued academic careers, saw Graduate Teaching Assistants on strike, and carrying banners which expressed their feelings that their employers had treated them as 'half price lecturers'. And whilst postgraduate teachers fulfil the core business of universities, there have been examples in the recent past of postgraduate teaching contracts being outsourced and therefore stripped of employee benefits (FACE, 2015). Looming over all of this is the declining number of academic positions, and the rising numbers of postgraduate researchers, meaning that the likelihood of an academic career path has decreased sharply, though reliable data on proportions sustaining academic careers long term is hard to come by (Hancock, 2021). Whilst the doctorate is on one hand an enriching time of exploration and opportunity, on the other, postgraduate researchers need to make strategic decisions about how they best invest their time in the pursuit of future employment.

As academic careers feature less in the career plans of our postgraduates, will we start to see a loss of interest in teaching as a postgraduate experience? Looking across the articles contributed to this issue of Postgraduate Pedagogies it would be difficult not to hold a deep appreciation for the value and expertise postgraduate teachers bring to their students, and their universities, from their unique positions as experts in their fields. Universities, and their students' experiences would be impoverished if we were to lose the contributions of postgraduate teachers. Of course, it is possible that our researchers would continue to engage in teaching simply because it is enjoyable and satisfying and not as an investment in career development. But that is a privileged position, and teaching for the love of teaching, is not accessible to many, our postgraduate teachers might also simply need the extra income.

What can we do to retain interest in teaching and retain the talented contributions we currently enjoy? As developers we can continue to advocate for our postgraduate teachers and to raise awareness of and value their expertise. We can also ensure we are explicit about the career value of teaching experience, beyond gaining an academic career. As is most clear from the articles you are about to enjoy, teaching requires nuanced communication skills, from oration, to facilitation to deep listening. Teaching well, means understanding how professional learning takes place, and how to mentor and motivate colleagues. Teaching involves team working, collegiality and succeeding with shared

endeavours, developing all the interpersonal skills required. And finally, teaching experience brings an understanding of outcome-focussed ways of working, it inherently transforms people, creates change for the better, and includes the skills required to recognise when that change has happened. This is surely a list that most of the diverse employers of our doctoral graduates can put to good use.

References

Albertyn, R., and Bennett, K. (2021) Containing and harnessing uncertainty during postgraduate research supervision, *Higher Education Research & Development,* 40:4, 661-675, DOI: 10.1080/07294360.2020.1775559

Alhija F. N-A., & Fresko, B. (2019): Graduate teaching assistants: motives, difficulties and professional interactions and their relationship to perceived benefits, Higher Education Research & Development, DOI: 10.1080/07294360.2019.1681374

Bryan, B., and Guccione, K. (2018) Was it worth it? A qualitative exploration of graduate perceptions of doctoral value. *Higher Education Research & Development*

Elliot, D. L., Bengtsen, S. S.E., Guccione, K. & Kobayashi, S. (2020) *The Hidden Curriculum in Doctoral Education.* Palgrave Macmillan, ISBN 9783030414962

Fighting Against Casualisation in Education (FACE) (2015) Warwick Uni to outsource hourly paid academics to subsidiary [BLOG POST].

Hancock, S. (2021): What is known about doctoral employment? Reflections from a UK study and directions for future research, *Journal of Higher Education Policy and Management*, DOI: 10.1080/1360080X.2020.1870027

Hill, L. B., Austin, A. e., Bantawa, B. and Savoy, J., N. (2019) Factors of success: building and sustaining teaching professional development opportunities for doctoral

students and postdocs, Higher Education Research & Development, 38:6, 1168-1182, DOI: 10.1080/07294360.2019.1616677

Mantai, L. (2017) Feeling like a researcher: experiences of early doctoral students in Australia, *Studies in Higher Education,* 42:4, 636-650, DOI: 10.1080/03075079.2015.1067603

McPherson, C., Punch, S. & Graham, E. (2018) Postgraduate transitions from masters to doctoral study: managing independence, emotions and support. *Stirling International Journal of Postgraduate Research SPARK 4*. [PDF]

Pitt, R., and Mewburn, I. (2016) Academic superheroes? A critical analysis of academic job descriptions, *Journal of Higher Education Policy and Management,* 38:1, 88-101, DOI: 10.1080/1360080X.2015.1126896

UCU (2019) Counting the costs of casualisation in higher education. [PDF]

Vitae (2011) Researcher Development Framework [PDF]

Introduction to Postgraduate Pedagogies: Centring Graduate Teaching Assistants in Higher Education

Nicole Anderson, University of Edinburgh, UK

Thomas Lowe, University of Groningen, Netherlands

Anastasia Patsiarika, University College London, UK

Since the inaugural issue of the journal in 2021, *Postgraduate Pedagogies* has welcomed three doctoral researchers as editors, all of whom are active Graduate Teaching Assistants (GTAs). In this introduction to the second issue of Postgraduate Pedagogies, the new editors will first of all reflect on their experiences of being GTAs, before identifying key themes within this issue: GTA teaching practices and development, precarities and the effect this may have in shifting GTA identities. These themes emphasise the continued need to explore who the graduate teaching assistant is and how they teach. These explorations are as vital as ever, with the COVID-19 pandemic bringing the concerns of GTAs more into the spotlight. Furthermore, the contributions in this issue emphasise the digitalisation of education and precarity that the COVID-19 pandemic forced all in academia to encounter. However, as the contributions show, GTAs often bear the brunt of these issues and are at the forefront of innovation and change in teaching practice.

Given their liminal role, they are perfectly suited to innovate how university teaching is done.

Anastasia Patsiarika, University College London, UK

GTAs are a vital part of the university's teaching community. My role as a GTA has shown me that students consider them friendly and approachable while enjoying their novel teaching practices that usually involve student-led teaching and incorporation of technology in the classroom. The coronavirus pandemic has further highlighted the importance of GTAs in higher education, as GTAs have supported teaching throughout the pandemic by delivering lectures online and in a hybrid way - both in the classroom and online. Teaching assistants have been further utilised to help the main instructor with marking and providing feedback, meetings with students and the creation of question banks for online evaluation tests (Brown & Krzic, 2021). Transition to online teaching has proved challenging even for experienced instructors who often deployed GTAs to coordinate the online activities and assist them with student engagement. I have personally used an online platform to deliver virtual laboratory courses so that students could have the opportunity to practise in a laboratory environment thus somewhat overcoming the limitations due to the pandemic. My role as an editor for *Postgraduate Pedagogies* has offered me the opportunity to connect with academics and teaching assistants from other universities and introduced me to other GTAs' teaching practices. The articles that have been

submitted to the journal so far have evidenced the importance of the role of GTAs in the academic environment. A characteristic example stems from the articles of Clark (2021) and Elliot and Marie (2021). They both outline that GTAs have a unique position acting as both teachers and students, something that enables them to bridge the gap between students and staff, mediate between the two and empower them to learn from each other and exchange innovative ideas.

Nicole Anderson, University of Edinburgh, UK

Reflecting on my GTA experience, I often find myself balancing the joy of teaching with the trials of working in insecure and precarious job conditions. Teaching fulfils me, and I find it generative to be in relation to, and building community with, other students and GTAs. Being part of the *Postgraduate Pedagogies* editorial team has further extended these relations across institutions and across borders. Teaching allows me to engage in critical discourses and practise critical pedagogies in multi-disciplinary contexts. I learn from the students around me, and they have challenged my perspectives in ways that inform my own research. However, these joys exist within long-standing outcries for fairer working conditions and employment, which often creates tensions in balancing my teaching, research and personal time. In editing this journal, it has been affirming to learn that both these positive and negative feelings are often shared by the wider GTA community.

Through reading these accounts, I see that despite differences between institutions, pedagogical methods and lived experiences, a sense of community is still constructed. Sharing experiences through these accounts highlights that these structural conditions that can often be divisive have potential to connect and bind us together. Editing this issue has allowed me to see how community can be constructed through difference. Being part of such an experienced and welcoming editorial team has not only enriched my knowledge of pedagogical literature and resources but has allowed me to build upon my idea of a GTA community. I am grateful to learn from my colleagues and understand the value of threading these experiences together through the publication of this second issue.

Thomas Lowe, University of Groningen, Netherlands

Upon joining the *Postgraduate Pedagogies* editorial board and preparing this issue, I have noticed that GTAs have such varied experiences based on their contexts. Based on my experiences teaching in the Netherlands, I feel like a valued staff member of the department and my efforts in teaching are recognised. As such, I think it is crucial that GTAs are considered as part of the academic staff because for many PhD candidates (PhDs), these experiences as a GTA are the first steps in an academic career. Furthermore, these GTA experiences are critical in motivating or demotivating PhDs to continue in academia. Yet, I also realise that the situation for PhDs in the Netherlands can be quite different to that of

PhDs in the UK. For example, I am not obliged to teach at all and only do so because I enjoy it. This is not the case for some GTAs in the UK, who need to teach in order to supplement their income. Thus, it is understandable that some of the zest of teaching is taken out when you feel obliged to teach. Furthermore, the differences and similarities experienced by GTAs have become more visible with the transition to digital learning, where it is possible to work with people all over the world. With this, it has been suggested that a 'digital resilience' has been fostered along with a virtual community (Bellamy et al., 2021). Whether this continues post-COVID-19 (whenever that may be) remains to be seen. However, there is a great opportunity borne from the COVID-19 pandemic for GTAs to be recognised for the work they do and a crucial point at which to learn from the variety of contexts we were able to experience online.

Our reflections as GTAs highlight several of the themes identified in the contributions to this issue, showing how our experiences often share some common ground despite institutional differences. We elaborate upon some of these themes in the following section and demonstrate the challenges GTAs may face in their role, both in the present and the future.

Theme One: Teaching Practices and GTA Development

GTAs are part of the main workforce for many universities in the UK and abroad delivering lectures, laboratory training,

marking, student mentoring and support. The role serves the university, the GTA and the students. Universities deploy a high number of non-permanent employees that provide effective teaching solutions, an approach that facilitates GTAs to gain experience in teaching and develop their teaching practices. In many instances universities also offer training courses for inexperienced GTAs and in some universities these courses are often compulsory. Training is of particular importance as it provides GTAs with the important tools and examples for undertaking their teaching role, particularly as GTAs progress through stages of their teaching journey. Experienced and trained GTAs tend to adopt more instructive teaching practices (providing students with activities) and less traditional (providing information for students) or translational approaches (focusing on student-teacher relationships) (Lee, 2019). Interestingly, student engagement with GTAs and vice versa happens at comparable levels, showcasing that the students share a mutual interest with GTAs for interaction and engagement (Wan et al., 2020). Furthermore, GTAs tend to develop close student-teacher relationships, especially with first year students (Reeves et al., 2016), something that can be explained by their unique position as both students and teachers, which offers them the ability to bridge the gap between students and staff (Clark, 2021). Additionally, GTAs have a high self-efficacy capacity despite their low experience in teaching (Chiu, Corrigan & Hui, 2019). Here it should be noted that it has been observed that self-efficacy tends to decline in the second year of teaching before

improving again in the third year. This shows that constant and effective support of GTAs is of particular importance to ensure their ability to deliver high quality teaching throughout the duration of their GTA role. Finally, GTAs should be further monitored for their ability to implement evidence-based teaching as, despite GTAs' overall good performance they sometimes find it challenging to implement this particular skill (Becker et al., 2017). In conclusion, GTAs' teaching practices involve high student engagement through activities in the classroom, achieving positive student-teacher relationships, where students are willing to engage in the classroom as well as in one-on-one interactions with the GTA. Training is of particular importance in order for the GTA to acquire the essential knowledge to make their teaching practices more engaging while continuous support will further ensure the effective implementation of the knowledge offered during training. GTAs are utilised regularly to support teaching while they are uniquely positioned to enable student-staff relationships. Therefore, universities should focus on investing in GTA training and investigate effective and timely ways to prepare them for their teaching duties.

Theme Two: GTA Precarity

The contributions within this journal remind us that GTA teaching practices are often undertaken within precarious conditions. The recent UK University College Union (UCU) strikes highlight the issues with working conditions for GTAs,

who are typically unsalaried and often hold fixed or short-term contracts. Gill and Donaghue (2016) show that higher education is one of the most reliant sectors on casualised labour, with over 70,000 academics in the United Kingdom working on insecure contracts (UCU, 2022). Within this precarious work, structural conditions further drive significant pay gaps; UK universities demonstrate a gender pay gap of 16%, a disability pay gap of 9% and a race pay gap of up to 17% (ibid.), making it difficult for researchers and GTAs from underrepresented groups to secure stable employment after graduation. It is argued that the neoliberalisation of Euro-American universities sustains these gaps by promoting values of individualisation and economic competitiveness (McCaig, 2018, Jaines, 2021). These values create a condition where success and worth are assigned based on various performance metrics (Heijstra, Steinthorsdottir, & Einarsdottir, 2017). With permanent jobs in British academia becoming scarcer, Bosanquet (2017) shows how GTAs and early career researchers feel they are held to a higher scrutiny to achieve these metrics and demonstrate an exemplary teaching and research record. Consequently, GTAs often feel they must become constantly “self-managing and self-improving” in order to secure an academic future (Gill & Donaghue, 2016). In all, precarity and job insecurity has created a condition where GTAs feel a responsibility to "over-perform", which often leads to academic burn-out and can have a long-standing impact on GTA mental health and wellbeing (Heijstra, Steinthorsdottir, & Einarsdottir, 2017). Green et. al. (2020: 1312) show how

the COVID-19 pandemic has heightened these issues and exacerbated these fault lines within Higher Education. As a consequence, GTAs and doctoral students have reported experiencing feelings of "low self-worth, isolation and intellectual fatigue" (Atkinson et. al., 2021: 1). It has become clear that the long-standing economic, social and psychological impact of COVID-19 requires strategies to address GTA mental health (Son et. al., 2020) and consider how these issues may intersect with GTA job precarity more broadly. Green et. al. (2020: 1313) draw upon Arundhati Roy (2020, n.p.), who argues that "historically pandemics have forced humans to break with the past and imagine their world anew" suggesting the potential of post-COVID-19 recovery to restructure precarious conditions and achieve more equitable futures.

Theme Three: GTA identities

Academic precarity highlights the unstable and uncertain "liminal" spaces in which GTAs develop their academic identities (Atkinson et. al., 2021). In thinking about imagined futures, Keefer (2015) conceptualised the idea of "doctoral liminality" by examining the psychological tensions experienced by students. GTAs are often considered to have a liminal identity, which is a combination of the roles of teacher and student (Winstone & Moore, 2017). Not only are they still progressing in their own education, but they are now active parts of the education of others. GTAs have been conceptualised as undertaking a crossing or boundary zone,

where their identity is not so established or clearly defined (Prøitz & Wittek, 2020). Crossing these boundaries is further impacted through structural uncertainty and insecurity, where GTAs often feel the need to juggle several roles and identities as a way of making ends meet and also to be seen as marketable. Despite this, due to GTAs' multiple roles and responsibilities, GTAs are considered to have an incomplete professional identity (Harland & Plangger, 2004; Winstone & Moore, 2017). This is reinforced by the interactions they experience with both staff and students through teaching and learning (Compton & Tran, 2017), which gives the GTA a unique position as a mediator between these two groups (Elliott & Marie, 2021). While the GTA identity is often associated with financial need, the opportunity to produce an academic self-hood and develop pedagogical skills are also benefits of the role (Hastie, 2021). The identity of GTAs' is informed by a variety of external influences, such as the ways they are considered by students. Kendall and Schussler (2012) found that students viewed professors as confident, in control and experienced, while GTAs are perceived as uncertain, relaxed and able to personalise teaching. This ties in with the liminality of the role, where confusion, uncertainty and a lack of confidence abound (Keefer, 2015). The views of students may reiterate the notions of what a GTA is like, reinforcing the views that they are not quite staff, but also not quite students. Furthermore, the background of each GTA can influence the identity work they experience. Class, ethnicity and nationality are just a few factors that play pivotal roles in the identity formation of the GTAs. In

conclusion, GTA identity is multifaceted and in light of the COVID-19 pandemic, vitally important to discuss in academia.

Outline of Issue Two

In this issue, we present eight articles that elaborate on these themes, based on various GTA experiences. The contributions reflect on pedagogical practices, narratives and identities, and examine some of the tensions inherent in these experiences. The contributions to this second issue of *Postgraduate Pedagogies* are summarised here in order:

The first contribution, entitled ‘How can Graduate Teaching Assistants support and promote student mental health?’ by Emma Wilson focuses on the mental health challenges faced by students in higher education, especially during the coronavirus pandemic, and the ability of GTAs to alleviate students’ mental health burden by gestures of kindness, empathy, and a shared sense of humanity.

In following the theme of GTA support and wellbeing, ‘GTA teaching practice development in the time of Covid-19: A collective reflective on how "having the chats" led to much more’, Rhea Kinsella, Trish Finegan, Muireann Ranta, Barry O'Sullivan, Manasa Hedge, Uday Hasmukh Kalyani, and Shane Ryan provide a 'collective reflective' account on how GTA identities are constructed through collaboration and engagement with other GTAs. By contributing reflections and experiences of the peer-support initiative 'Hear to Help', the article demonstrates how a sense of belonging was created

through these sessions. By allowing a space to express emotional and academic concerns, the article explores how a community is built by making visible different facets of the GTA experience.

The next article further discusses strategies for creating safer and more inclusive environments for GTAs. In 'One size fits none in international higher education: A UK-based case study on how to foster inclusive participation and active engagement in the classroom', Mattia Zingaretti and Roberta Spelorzi consider the challenges surrounding the promotion of inclusive participation and active engagement within Higher Education Institutions (HEIs) in an international context, as is the case with UK universities. Overall, this article notes the preference for a welcoming and safe environment, the continued existence of a 'language barrier' even for those fluent in English and the importance of a 'small culture' co-created by teachers and learners in the classroom. Ultimately, this article provides reflections and recommendations on how to foster inclusive participation and active engagement for all Higher Education instructors, including GTAs.

The next contribution reflects upon the GTA engagement and experiences during the COVID-19 pandemic. In 'Teaching the Teachers: Reflections from two Graduate Teaching Assistants', Dr Anna Grimaldi and Dr Mani Sughir Selvaraji offer a critical reflection on their experiences as two former GTAs, who were tasked with creating a digital learning program during the first UK COVID-19 lockdown in 2020. The

authors' experiment in 'teaching the teachers' shows how pedagogical theory, in particular Freirian concepts, can be a helpful tool for challenging the ways in which GTAs are valued. Thus, the authors hope to encourage the application of these concepts to scrutinise the relationships between senior and junior staff members and those who are temporary and permanent.

Contributing to the discussion of digital learning programs and tools, Ekaterina Rzyankina and Frikkie George's article, titled 'Exploring Graduate Teaching Assistants in the virtual space during COVID-19 using Cultural Historical Activity Theory perspective', explores the roles, responsibilities and challenges for GTAs during the COVID-19 pandemic at the University of Technology, through the lens of Cultural Historical Activity Theory (CHAT). The article finds that the digital tools used played a vital role in the students' support and performance. However, the participants expressed many tensions in their engagement with students and lecturers and adaptations to the COVID-19 pandemic context.

This is followed by 'IDEAS (Inspirations for Digital Engagement Activities) to support the teaching practice of early career Academics' by Silvia Colaiacomo and Leo Havemann, who showcase the collaborative work of UCL academics that led to the development of open educational resources entitled Inspirations for Digital Engagement Activities or IDEAs, a collection of activities and teaching practices that support teaching online and in blended

contexts. The article highlights the importance of IDEAs in supporting GTA teaching.

The article titled ‘Experience Report: Challenges and opportunities of remote labs for computer science department’ by Douglas Fraser, William Kavanagh, Ethan Hunter, Alexandrina Pancheva, Jack Parkinson, Iulia Paun, Tom Wallis, Mireilla Bikanga Ada, Helen Border and Gethin Norman further considers the challenges, benefits and positive developments of implementing online teaching due to the COVID-19 pandemic restrictions. Using survey evidence, the authors consider how the new approach to teaching was negatively perceived and further discuss the phasing back to face-to-face teaching, which mitigated the shortfalls of online-only lab delivery. This hybridisation was viewed unfavourably and despite the inclusion of some in-person teaching, the students preferred solely online classes to a hybrid approach.

Lastly, in ‘Shape Shifting – Autobiography as a tool for exploring boundary practices: A GTA’s perspective’, Kristyna Campbell contributes an autobiographical article that reflects on her experiences as an "artist-turned-GTA". By reflecting upon her career and her movement between different "communities of practice", she shows how subjective knowledge can be transferred to others through pedagogical practice. She explores how GTAs utilise their liminal identities to recontextualise their existing knowledge and contribute to new transdisciplinary discourses and teaching spaces.

References

Atkinson, M., Brodie, A., Kafcaloudes, P., McCarthy, S., Monson, E. A., Sefa-Nyarko, C., Omond, S., O'Toole, M., Pavich, N., See, J., Ty, A. A. & Yu, W. (2021). Illuminating the liminality of the doctoral journey: precarity, agency and COVID-19, Higher Education Research & Development, pp. 1-15. https://doi.org/10.1080/07294360.2021.1968354

Becker, E. A., Easlon, E. J., Potter, S. C., Guzman-Alvarez, A., Spear, J. M., Facciotti, M. T., Igo, M. M., Singer, M., & Pagliarulo, C. (2017). The effects of practice-based training on graduate teaching assistants' classroom practices. CBE Life Sciences Education, 16(4), pp. 1-14. https://doi.org/10.1187/cbe.16-05-0162

Bellamy, G., Brown, R., Cleland Woods, H., Labrosse, N., Senn, H., Singer, J., & Vezza, M. (2021). Togetherness: the central tenet of an effective institutional online pivot. Journal of Perspectives in Applied Academic Practice, 9 (2), pp. 82-90. https://doi.org/10.14297/jpaap.v9i2.491

Bosanquet, A. (2017). Academic, Woman, Mother: Negotiating Multiple Subjectivities During Early Career. In Being an Early Career Feminist Academic. Palgrave Studies in Gender and Education, edited by R. Thwaites and A. Pressland. London: Palgrave Macmillan

Brown, S. & Krzic, M. (2021). Lessons learned teaching during the COVID-19 pandemic: Incorporating change for future large science courses. Natural Sciences Education, 50(1), pp. 1-10. https://doi.org/10.1002/nse2.20047

Chiu, P. H. P., Corrigan, P., & Hui, S. K. F. (2019). A study of graduate teaching assistants' self-efficacy in teaching: Fits and starts in the first triennium of teaching. Cogent Education, 6(1). https://doi.org/10.1080/2331186X.2019.1579964

Clark, L. (2021). Bridging the Power Gap: GTAs and Student-Staff Partnership. Postgraduate Pedagogies. Postgraduate Pedagogies Journal, 1(1), pp. 91–109.

Compton, M. & Tran, D. (2017). Liminal space or in limbo? Post Graduate Researchers and their personal pie charts of identity. Compass: Journal of Learning and Teaching, 10(3), pp. 1-14. doi:https://doi.org/10.21100/compass.v10i3.620

Elliott, M. I., & Marie, J. (2021). Advancing student-staff partnership through the unique position of GTAs. Postgraduate Pedagogies Journal, 1(1), 71–89.

Gill, R., & Donaghue, N. (2016). Resilience, Apps and Reluctant Individualism: Technologies of Self in the Neoliberal Academy. Women's Studies International Forum 54. pp. 91–99. https://doi:10.1016/j.wsif.2015.06.016

Green, W., Anderson, V., Tait, K., & Tran, L. T. (2020). Precarity, fear and hope: Reflecting and imagining in higher education during a global pandemic. Higher Education Research & Development, 39(7), pp. 1309–1312. https://doi.org/10.1080/07294360.2020.1826029

Harland, T. & Plangger, G. (2004). The postgraduate chameleon: Changing roles in doctoral education. Active

Learning in Higher Education, 5, pp. 73–86. https://doi.org/10.1177/1469787404040462

Hastie, A. (2021). Class Act: Reflections on a working-class academic sense of self as a Graduate Teaching Assistant. *Postgraduate Pedagogies*, *1*(1), 27-47.

Heijstra, T. M., Steinthorsdóttir, F. S., & Einarsdótti, T. (2017). Academic Career Making and the Double-Edged Role of Academic Housework. Gender and Education, 29(6), pp. 764–780. https://doi.org/10.1080/07294360.2021.1968354

Jaines, R. (2021). Perverse Relationships: The Graduate Teaching Assistant in the Neoliberal University. Postgraduate Pedagogies 1(1), pp. 48-69.

Keefer, J. M. (2015). Experiencing doctoral liminality as a conceptual threshold and how supervisors can use it. Innovations in Education and Teaching International, 52, pp. 17–28. https://doi.org/10.1080/14703297.2014.981839

Kendall, K. D. & Schussler, E. E. (2012). Does instructor type matter? Undergraduate student perception of graduate teaching assistants and professors. CBE—Life Sciences Education, 11(2), pp. 187-199. https://doi.org/10.1187/cbe.11-10-0091

Lee, S. W. (2019). The impact of a pedagogy course on the teaching beliefs of inexperienced graduate teaching assistants. CBE Life Sciences Education, 18(1), pp. 1-12. https://doi.org/10.1187/cbe.18-07-0137

McCaig, C. (2018). The Marketisation of English Higher Education: A Policy Analysis of a Risk. Bingley: Emerald Publishing.

Prøitz, T. S. & L. Wittek. (2020). New Directions in Doctoral Programmes: Bridging Tensions Between Theory and Practice?. Teaching in Higher Education, 25(5), pp. 560–578. doi:10.1080/ 13562517.2019.1577813.

Reeves, T. D., Marbach-Ad, G., Miller, K. R., Ridgway, J., Gardner, G. E., Schussler, E. E., & Wischusen, E. W. (2016). A conceptual framework for graduate teaching assistant professional development evaluation and research. CBE Life Sciences Education, 15(2), pp. 1-9. https://doi.org/10.1187/cbe.15-10-0225

Roy, A. (2020). Arundhati Roy: 'The pandemic is a portal'. The Financial Times. Available at: https://www.ft.com/content/10d8f5e8-74eb-11ea-95fe-fcd274e920ca [accessed 03/06/2022]

Son, C., Hegde, S., Smith, A., Wang, X., & Sasangohar, F. (2020). Effects of COVID-19 on college students' mental health in the United States: Interview survey study. Journal of Medical Internet Research, 22(9), e21279. https://doi.org/10.2196/21279

UCU. (2022). Staff at 36 UK universities back further strike action in ballot over pay and working conditions. Available at: https://www.ucu.org.uk/article/12234/Staff-at-36-UK-universities-back-further-strike-action-in-ballot-over-pay-and-working-conditions [accessed 01/06/2022]

Wan, T., Geraets, A. A., Doty, C. M., Saitta, E. K. H., & Chini, J. J. (2020). Characterizing science graduate teaching assistants' instructional practices in reformed laboratories and tutorials. International Journal of STEM Education, 7(1), pp.1-21. https://doi.org/10.1186/s40594-020-00229-0

Winstone, N. & Moore, D. (2017). Sometimes fish, sometimes fowl? Liminality, identity work and identity malleability in graduate teaching assistants. Innovations in education and teaching international, 54(5), pp. 494-502. https://doi.org/10.1080/14703297.2016.1194769

How can Graduate Teaching Assistants support and promote student mental health?

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Abstract

Student mental health problems are rising and were highly prevalent even before the COVID-19 pandemic (Grubic, et al., 2020; Sheldon, et al., 2021). Undergraduate students, particularly those who arrive with pre-existing conditions are a group whose mental health needs to be supported during those first few months and throughout their degree (Garlow, et al., 2008). As members of the academic teaching community, Graduate Teaching Assistants (GTAs) play an important role in contributing towards a university-wide approach to good mental health, whilst keeping within the limits of the role. Drawing on the academic literature and over a decade of personal and professional experience across five higher education institutions, I argue there is a great opportunity for GTAs to positively influence the student university experience, through simple gestures of kindness, empathy, and a shared sense of humanity. This reflective piece supports these claims by drawing on theories such as

intergroup contact theory (Allport, et al., 1954), and empirical studies which have looked at mental health stigma. Practical recommendations are made, with a reminder that GTAs must also look after their own mental health.

Introduction

Student mental health problems are rising and were highly prevalent even before the COVID-19 pandemic (Grubic, et al., 2020; Sheldon, et al., 2021; Auerbach, et al., 2018). This includes distress caused by common mental health disorders such as anxiety and depression, eating disorders, and at its worst, suicide (Mortier, et al., 2018). By the early to mid-20s, nearly 75% of long-term mental health conditions will have developed (Kessler, et al., 2005). This is also a time of transitions when many students start and complete their university journey.

There is no single cause for mental illness, yet it is often a combination of existing vulnerabilities (e.g., biological predispositions, adverse childhood experiences) that combined with proximal stressors (e.g., moving to a new city, meeting new friends, adjusting to university life) can lead to mental distress (Caspi & Moffitt, 2006). Undergraduate students, particularly those who arrive with pre-existing conditions and/or other vulnerabilities, are a group whose mental health needs to be supported during those first few months, and throughout their degree (Garlow, et al., 2008). This requires a university-wide approach, where support and interventions are co-produced with the people they seek to benefit, remembering that no single approach will suit the needs of every student (Wilson, 2020; Brewster, et al., 2022).

Aims and scope of this paper

In my roles of Graduate Teaching Assistant in the King's College London (KCL) Psychology department, and PhD student at the Centre for Society and Mental Health (KCL), I frequently reflect on what GTAs can do to support and

promote student mental health, within the limits of our role. To address this, I will present some context of student mental health, why it is important, and practical ways we can support students by drawing on lived experience and academic literature, including Allport's intergroup contact hypothesis (Allport, et al., 1954).

Discussion

The challenges of seeking support

In general, UK-based university students with health conditions, including mental health problems, are encouraged to disclose these at enrolment, so that personalised exam arrangements and learning adjustments can be put in place. If problems develop after enrolment, students are also encouraged to speak to their personal tutors and student support teams. From here, they may have access to a range of support services, from counselling to extensions on coursework deadlines. However, this relies on students feeling able to seek help and disclose their struggles (Martin, 2010). Despite strides to make the discussion of mental health less taboo, the stigma surrounding mental health is still all too real: 'I wouldn't want it on my CV or their records' is just one example of how university students may fear negative repercussions in their careers (Chew-Graham, et al., 2003, p. 873). The challenges may be greater still for international students, who are not only trying to acclimatise to a new environment, but may be less inclined to access support if they are from a culture where talking about one's mental health is a taboo subject (Minutillo, et al., 2020).

Suggestions from students

From a personal perspective, being in the depths of depression usurped all energy to seek support, and even if I did, I felt I would be seen as weak, unable to handle the rigour of higher education, whilst everyone else seemed to be coping just fine. What I did not know then, however, was how many others were struggling, and how in hindsight, it would have helped us all to have said, 'I'm not okay, I need some help'. In our role as GTAs, I believe we can help to normalise these conversations and shift towards mentally healthy environments, using suggestions from students themselves (Ryan, et al., 2021). When 2,776 Australian students in a metropolitan university were asked about recommendations to improve student wellbeing, responses were grouped into seven themes. The second and third most common themes were improvements to 'student services and support' and 'environment, culture and communication' (Baik, et al., 2019). These held greatest importance for students in some faculties (e.g., Law) over others (e.g., Biomedicine). Specific examples included fostering a more inclusive and caring sense of community, promoting mental health practices, and promoting the use of mental health services. Additionally, within the most common theme, 'academic teachers and their teaching practice', students emphasised the importance of approachability, empathy and good communication between teacher and student.

Drawing on theory: Allport's intergroup contact hypothesis

In considering ways that teacher-student interactions can support the creation of mentally healthy learning environments, I am reminded of the social contact

hypothesis that has supported anti-stigma and mental health literacy campaigns (Evans-Lacko, et al., 2012). One such campaign that I volunteered with is Time to Change (https://www.time-to-change.org.uk), a UK-based charity-led initiative to reduce stigma and discrimination, where people with mental illness (PMI) would meet with members of the public. The idea is that stigma and discrimination can be reduced through social contact, something which links back to Allport's intergroup contact hypothesis, which proposed that prejudice can be reduced when different social groups positively interact (Allport, et al., 1954). Specific to mental health, stereotypes and misconceptions have reduced after having conversations with individuals who have experienced a mental illness (Gao & Ng, 2021; Maunder & White, 2019). Put simply, the topic becomes more normalised and shifts away from outdated representations that poor mental health and/or mental illness is something which is rare and dangerous. Indeed, an evaluation of Time to Change campaign found more positive attitudes related to prejudice and exclusion, particularly among females, people from higher socioeconomic status and under 65s (Evans-Lacko, et al., 2014). In addition, a recent meta-analysis by Maunder & White (2019) found that university students may be particularly receptive to contact on reducing stigma compared to wider community members ($\beta = .252$, $p = .006$). Drawing on the intergroup contact hypothesis, the authors suggested that positive, personal contact is most effective at reducing prejudice if the parties involved are of an equal status (Allport, et al., 1954). This suggests that students may relate to teachers such as GTAs who are typically of similar age (albeit slightly more senior), enabling the creation of peer-based interactions (Lusher, et al., 2018).

Suggestions for practice: a university-wide approach

These findings foster three further reflections: first, the potential benefit of having mental health 'champions' within universities. Specifically, individuals who can break down misconceptions that people with mental health problems cannot succeed in academia, thus acting as role models for others. Indeed, students in diverse campuses have reported more intergroup contact, with positive implications for reducing racial harassment and positive perceptions of the diversity climate (Dawson & Cuevas, 2020). This would be interesting to explore further across other marginalised communities. Second, that GTAs may promote a culture of good mental health by incorporating a human element into their roles, such as personal anecdotes from their own university journeys. This is not limited to GTAs with a mental health condition – remember, we all have mental health, just like we all have physical health – and I am by no means encouraging people to disclose anything they do not want to share. Third, universities should ensure all staff, including GTAs, complete training in basic mental health literacy, to build confidence and enable appropriate responses to instances of distress in their students (Gulliver, et al., 2019).

Suggestions for practice: sharing stories and providing insight

In reflecting on my own journey, I often ask myself what would have helped me as an 18-year-old undergraduate Law student. I believe that some of the simplest gestures to support students in the classroom are honesty and empathy (Baik, et al., 2019). For example, sharing some insight that shows you can succeed academically, without being perfect;

and knowing it is acceptable to reach out for support. When I meet students for the first time, whether they are working towards their GCSE (ages 14-16) or A-Level exams (ages 16-18) as students in my Brilliant Club tutoring role, or undergraduates or postgraduates in my GTA posts, I briefly introduce them to my own journey, which went from History dropout to Law graduate, to Psychology PhD candidate. I may, depending on circumstances, even say that I struggled with my mental health, had counselling, and felt pressure to drink and party when I just wanted to watch Netflix and go to bed by 10pm. I might, in future sessions, reflect on how overwhelming it can feel to try and tackle each module's reading lists, and admit that it is better to focus on Abstracts rather than reading an entire journal article when time is short. GTAs do not need to go into their journey as deeply as myself, but one or two personal insights may help relieve a current student's anxiety about a particular issue; or at least remind them they do not have to strive for perfection, a construct linked to distress and suicidal ideation in university students (Hamilton & Schweitzer, 2000).

The power of honesty, empathy; and reciprocity

I will admit, the topics I teach cover psychology and mental health, so I am familiar with talking about thoughts and feelings in an academic sense. However, there are some things that all GTAs can do to build connections with students. This may include asking students how they are settling in, introducing them to your own research studies, or the challenges you have faced yet overcome. This helps to remind students that academia is one challenge after another – just like in life. Behind every article acceptance are several rejections, and rarely do recent graduates land their

dream job. Research studies using intergroup contact theory have shown that connection with others can be a powerful force for good; at a time when life has been shifting more online, the importance of minimising isolation and loneliness is crucial, given the links to negative mental health outcomes, particularly in the young adult and student age population (Bu, et al., 2020). Engaging students with compassion and humility may help reduce this risk, even in a small way. It should also be recognised that, drawing on theories of reciprocity and emotion transmission (Frenzel, et al., 2018), relating to students on a personal level can also be rewarding for GTAs. Academia can be an isolating place at times (Cornwall, et al., 2019), so these moments of being human arguably have a reciprocal value for staff and students alike.

Limitations of a GTA's role and protecting one's own mental health

Notwithstanding the above, it is also important to remember our limits as GTAs. We are not employed to act as substitute therapists or replace the potential need for medication prescribed by experienced clinicians, nor are we expected to replace the role of personal tutors or try to solve anything alone. Our workload is already high and most of us are not trained counsellors; good practice by module leads should inform GTAs about the limits of their roles and offer drop-ins where there are concerns. Initial GTA training sessions should, at a minimum, familiarise GTAs with appropriate services they can signpost students who are seeking support. At my current university, King's College London, there is a 'One Stop Shop' for GTAs on the intranet webpages, which has a dedicated section for supporting students. It is important to remember, however, that GTAs are not

expected to solve all the problems and should ask for help if it is beyond their ability or role. Maintaining boundaries is a challenge faced by academics across levels and disciplines, with many torn between wanting to help but needing to maintain some emotional distance (Hughes & Byrom, 2019). This also highlights the importance of self-care, those activities which support rest and renewal, something often neglected in academia (O'Dwyer, et al., 2018).

Conclusion

To conclude, I believe there is a great opportunity for GTAs to positively influence the student university experience, through simple gestures of kindness, a shared sense of humanity and the awareness that it is important to share and learn from our mistakes. As members of the academic community, I believe we all play a role in creating an environment that fosters good mental health. While GTAs do not have the amount level of responsibility as more senior members of staff, it is important to remember that small actions can make a big difference in the long term.

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References

Allport, G. W., Clark, K. & Pettigrew, T., 1954. The nature of prejudice. Reading, MA

Auerbach, R. P. et al., 2018. WHO World Mental Health Surveys International College Student Project: Prevalence and distribution of mental disorders. Journal of Abnormal Psychology, 127(7), pp. 623-638.

Baik, C., Larcombe, W. & Brooker, A., 2019. How universities can enhance student mental wellbeing: The student perspective. Higher Education Research & Development, 38(4), pp. 674-687.

Brewster, L. et al., 2022. 'Look after the staff and they would look after the students' cultures of wellbeing and mental health in the university setting. Journal of Further and Higher Education, pp. 548-560.

Bu, F., Steptoe, A. & Fancourt, D., 2020. Who is lonely in lockdown? Cross-cohort analyses of predictors of loneliness before and during the COVID-19 pandemic. Public Health, Volume 186, pp. 31-34.

Caspi, A. & Moffitt, T. E., 2006. Gene–environment interactions in psychiatry: joining forces with neuroscience. Nature Reviews Neuroscience, 7(7), pp. 583-590.

Chew-Graham, C. A., Rogers, A. & Yassin, N., 2003. 'I wouldn't want it on my CV or their records': medical students' experiences of help-seeking for mental health problems. Medical education, 37(10), pp. 873-880.

Cornwall, J. et al., 2019. Stressors in early-stage doctoral students. Studies in Continuing Education, 41(3), pp. 363-380.

Evans-Lacko, S. et al., 2014. Effect of the Time to Change anti-stigma campaign on trends in mental-illness-related public stigma among the English population in 2003–13: an analysis of survey data. The Lancet Psychiatry, 1(2), pp. 121-128.

Evans-Lacko, S. et al., 2012. Mass social contact interventions and their effect on mental health related stigma and intended discrimination. BMC public health, 12(1), pp. 1-8.

Frenzel, A. C. et al., 2018. Emotion transmission in the classroom revisited: A reciprocal effects model of teacher and student enjoyment. Journal of Educational Psychology, 110(5), pp. 628-639.

Gao, S. & Ng, S. M., 2021. Reducing Stigma among College Students toward People with Schizophrenia: A Randomized Control Trial Grounded on Intergroup Contact Theory. Schizophrenia Bulletin Open, 2(1), p. sgab008.

Garlow, S. J. et al., 2008. Depression, desperation, and suicidal ideation in college students: results from the American Foundation for Suicide Prevention College Screening Project at Emory University. Depression and anxiety, 25(6), pp. 482-488.

Grubic, N., Badovinac, S. & Johri, A. M., 2020. Student mental health in the midst of the COVID-19 pandemic: A call for further research and immediate solutions. International Journal of Social Psychiatry, 66(5), pp. 517-518.

Gulliver, A., Farrer, L., Bennett, K. & Griffiths, K. M., 2019. University staff mental health literacy, stigma and their

experience of students with mental health problems. Journal of Further and Higher Education, 43(3), pp. 434-442.

Hamilton, T. K. & Schweitzer, R. D., 2000. The cost of being perfect: perfectionism and suicide ideation in university students. Australian & New Zealand Journal of Psychiatry, 34(5), pp. 829-835.

Hughes, G. J. & Byrom, N. C., 2019. Managing student mental health: The challenges faced by academics on professional healthcare courses. Journal of advanced nursing, 75(7), pp. 1539-1548.

Kessler, R. C. et al., 2005. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. Archives of general psychiatry, 62(6), p. 59.

Lusher, L., Campbell, D. & Carrell, S., 2018. TAs like me: Racial interactions between graduate teaching assistants and undergraduates. Journal of Public Economics, Volume 159, pp. 203-224.

Martin, J. M., 2010. Stigma and student mental health in higher education. Higher Education Research & Development, 29(3), pp. 259-274.

Maunder, R. D. & White, F. A., 2019. Intergroup contact and mental health stigma: A comparative effectiveness meta-analysis. Clinical psychology review, 72(101749).

Minutillo, S., Cleary, M., Hills, A. P. & Visentin, D., 2020. Mental Health Considerations for International Students. Issues in Mental Health Nursing, 41(6), pp. 494-499.

Mortier, P. et al., 2018. The prevalence of suicidal thoughts and behaviours among college students: a meta-analysis. Psychological Medicine, 48(4), p. 554–565.

O’Dwyer, S., Pinto, S. & McDonough, S., 2018. Self-care for academics: a poetic invitation to reflect and resist. Reflective Practice, 19(2), pp. 243-249.

Ryan, T., Baik, C. & Larcombe, W., 2021. How can universities better support the mental wellbeing of higher degree research students? A study of students’ suggestions. Higher Education Research & Development.

Sheldon, E. et al., 2021. Prevalence and risk factors for mental health problems in university undergraduate students: a systematic review with meta-analysis. Journal of Affective Disorders, Volume 287, pp. 282-292.

Wilson, E., 2020. Where next for youth mental health? Reflections on current research and considerations for the future. Journal of Mental Health, 29(4), pp. 371-375.

GTA teaching practice development in the time of Covid-19: A collective reflective on how "having the chats" led to much more

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Abstract

Postgraduate research students who teach, also referred to as graduate teaching assistants (GTAs), have consistently been described as essential contributors to Higher Education (HE), given the crucial teaching role that they perform (Austin, 2002; Luft et al., 2004; Gardner & Jones, 2011; Roden, Jakob, Roehrig et al., 2018; Holland, 2018; Fung, 2021; Hastie, 2021). However, it has been noted that, frequently, the only opportunity provided for GTAs to engage with personal and professional development is through their allocated teaching hours, most of which are on common introductory or practical modules, which form the staple part of the GTA teaching experience (Seymour & Hewitt, 1997; Ellis, 2014; Schussler et al., 2015). In many cases, these are conducted in

isolation from other GTAs or Faculty members, leading to teaching becoming somewhat of an isolating experience. As such, GTAs often struggle to find the space and time to develop their teaching identity with other GTAs. Adopting a qualitative approach, this co-authored paper, which we describe as a 'collective reflective', details how, through involvement in a peer support initiative, we, as a group of GTAs, were able to reflect on our role and shape our identity as teachers. Together, we delve into the thoughts and discussions that we shared on this journey. Our considerations from this reflective piece highlight the importance of building supportive communities for GTAs, not only to allow for reflection on professional development but also to engender a sense of belonging amongst GTAs.

Introduction

This paper was born out of a peer support initiative called 'Hear to Help' (H2H), implemented in early 2021, as part of a suite of Covid-19 response measures, in the Institute of Technology Carlow, a higher education institution in Ireland. Coordinated by the Institute's Teaching and Learning Centre, the focus of the eight-week-long initiative was to bring undergraduate and postgraduate learners together to support each other through personal, social, and academic stressors, brought on by the sudden transition to online learning. The authors of this paper were all involved in the initiative, which consisted of each GTA meeting with undergraduate (UG) class groups online for 15 minutes each week, in what the GTAs termed 'micro-sessions'. The class groups to which we were assigned were from a range of disciplines and programme stages, from first to final year.

These H2H sessions were essentially established to provide a comfortable, non-judgemental space in which undergraduates could relay any concerns they had of an academic, pastoral, and social nature. As GTAs, we would listen and support them by addressing their concerns, while also navigating them to support resources available and, in some cases, providing discipline-specific advice. Each GTA was assigned eight class groups to meet with on a weekly basis, where the number of participants varied, depending on the nature of their concerns at the time. In tandem, we, as a group of 13 GTAs[1], met with the initiative coordinator once a week for approximately one hour, and shared the nature of the concerns emerging from the

[1] There were 13 GTAs which took part in the H2H initiative of which 7 are represented here.

undergraduate students, thereby allowing us to discuss our experiences.

Prior to commencing the initiative, we were given some training on how to facilitate the micro-sessions and manage any concerns the participants may raise. However, due to the importance of the initiative for UGs who were struggling with online learning and wishing to commence it as soon as possible, training was kept to a minimum. While attendance at the sessions was not mandatory for the UGs, as GTAs, we were paid for our work which was funded through an Irish government Covid-19 funding allocation.

Although the main aim of the H2H initiative was to support and empower UGs to overcome any Covid-19-related challenges, the initiative created several benefits for us as GTAs. It became an important space for us to connect, to chat, and to create a supportive community, the impact of which has lasted long after the initiative itself, as we continue to meet informally and provide support for each other.

To capture our thoughts and ideas, after the initiative formally concluded, we decided to meet online to reflect on and share our experiences, a selection of which are documented in this collective piece. Though the benefits of being part of this initiative have been manifold, we have chosen to highlight three specific areas of development, namely, our sense of belonging within the Institute, our teaching identity, and our professional development.

Methodology

We have decided to align our methodology with a narrative approach, which focuses on the view that we understand human experiences through stories lived and told. This paradigm supports the gathering and telling of stories as a means of research inquiry and advocates that we understand our world through reliving and retelling stories of 'the experiences that made up people's lives individual and social' (Clandinin & Connolly, 2000: 20). In that regard, we consider human beings and their experiences to be - constructed through both individual and collective experience (McCormack et al., 2020) and that is why we have chosen to capture the story of our collective experience. As with many other narrative inquirers, we see ourselves as both the researchers and the participants in this study, and as such, are both living and telling our story (Clandinin, 2006). This article has been crafted in a manner that broadly corresponds with Giroud's (1999) interpretation of collaborative writing, with a keen focus on the exchange of ideas, discussion in respect of decision-making, and a shared approach to problem-solving. We are using story, not only to relay our experience but for us to better understand the complexity of this shared experience (Bochner & Ellis, 2016).

Through our discussions, we captured what we had individually gained from being a part of the initiative, and a collective voice, threading our experiences, began to emerge. To illustrate this, the article is interspersed with our individual voices through the use of quotations. However, we have chosen not to attribute them to any one individual, thereby strengthening our collective approach. In that way, while it may not represent the format of a traditional journal article, we believe that hearing the unique voices of the collective aligns with our creative approach.

And this is our story...

Creating a sense of belonging

Morris's (2021) research into postgraduates' experiences of belonging and non-belonging and how that impacted their work found that a sense of belonging is an important aspect of the experience of postgraduates (PGs). Equally, a sense of belonging enables better outcomes academically and personally by supporting GTAs to identify with and be accepted by the community (White & Nonnamaker, 2008). The sense of belonging that the H2H initiative brought not only developed our confidence and lessened our anxiety, but further helped to develop our own pedagogical skills, thereby fostering quality teaching practice (Sharpe, 2000; Weidert et al, 2012; Chadha, 2013), which was positive for all learners.

As GTAs we could meet each week and talk about a range of issues in a safe and supportive environment. Feeling this sense of inclusion also plays an important part in maintaining well-being (Fleuret & Atkinson, 2007; Munoz et al., 2015) and for us, as a group of postgraduates working remotely during the pandemic, this was particularly important, evidenced in the contribution of one or our group members during our discussions.

> *"Bruner[2] describes learning as a social process based on current knowledge, experiences and contexts that make learners willing and able to learn. In terms of context, it would be fair to say that a global*

[2] Reference to Bruner (1961)

pandemic in itself, is difficult, emotional, stressful, traumatic, and scary for most. I have yet to find an accurate description of how it felt to navigate oneself through such a context as a new student, or indeed a student new to virtual academic life for an ongoing unknown period of time. However, an understanding of that alone was probably what shaped us as a community of postgraduate students, while providing our fellow students with a form of support that was authentic to their needs. Both hooks[3] and Freire[4] describe this feeling of community that creates a sense that there is shared commitment and a common good that binds us. Certainly, after joining the group I felt a sense of something. What was it? I'm not sure. It was positive and safe, and I enjoyed our weekly discussions with these people, we laughed, we empathised, we listened and, it really helped me."

Not having a sense of belonging to the work community to which you are assigned as a GTA, not understanding what the rules of the group are, may lead to a sense of alienation bringing with it mental and emotional ill-health. Day (2006) refers to the importance of belonging to a particular community and, without the H2H initiative, we would not necessarily have had the opportunity to meet, share and develop a better understanding of the world of GTAs. This, in turn, improved the feeling of mutual dependence, which Schlossberg (1989) describes as 'mattering', the feeling that

[3] Reference to hooks (1994)
[4] Reference to Freire (1970)

others depend on us and are interested in us. This was aptly captured by a fellow GTA, when they said:

> *"Working from home during the pandemic would have been daunting enough if you were already established in a job, but as a new researcher and new to IT Carlow, it was a little more daunting. This initiative enabled me to connect to a community of practice and feel a sense of belonging. The informal approach to the weekly hour-long meetings with the initiative coordinator was an important element in creating this connection, and it allowed me to bond with postgraduate researchers across disciplines. We were able to form a community, albeit a small one, not just what Wenger[5] calls a community of practice, but also one of interest, which enabled us to share our identity, both as researchers and teachers."*

Forging our GTA identity

Being a GTA can also cause an inner struggle (Winstone & Moore, 2016), as it can create role conflict (Pierson, 2018), by continuously switching between roles and identities, including that of a teacher and student. A major benefit of taking part in this initiative was that we got the opportunity to try out our new teaching persona (Winstone & Moore, 2016) in a safe space, emulating some of the behaviours that we had observed in teachers that we admired, as one of the group articulated below:

[5] Reference to Wenger (2000)

"Becoming a teacher for me was the idea of adopting a new mask or as Colbeck[6] describes, a new persona, separate from my general self, moving away from my student identity which has been a big part of who I am for such a long time. However, it is not as if I have completely moved on from my student identity so to take on both these roles at the same time has been odd. One of the main benefits of the initiative on a personal and a professional level for me was that it allowed me to enter a conversation with undergraduates and teach them in a way. Not necessarily in an academic or content sense but passing down information on how the college works and college systems. So, this gave me the opportunity to take on a knowledgeable role in an informal way, therefore it provided me with more confidence and lessened my anxiety when it came time to teach in a more formal manner during the Research Masters."

In addition, the weekly feedback meetings supported us to listen to our peers and hear how they had dealt with situations in this new professional role. By listening, we gained knowledge of each other's experiences and shared good practices which we knew we could adopt later ourselves, thereby developing our identity as teachers. We recognised the value of reflection to support and critically assess our own teaching practice and were helped to identify areas for future GTA support and development (Miller, 2010). This point is discussed in the following quote.

[6] Reference to Colbeck (2008)

> *"One benefit of the weekly meetings as part of the H2H initiative was the social interactions with other postgraduates who are in a similar circumstance. It allowed GTAs the ability to feel comfortable 'not knowing the answers' which can often be overlooked when introduced to a teaching role. As Schussler[7] identified, it is a common limitation of educational systems that new postgraduates are thrown into teaching environments, often with limited preparation."*

Before Covid-19, the teaching responsibilities of GTAs were primarily characterised by large in-person group sessions. The Covid-19 pandemic brought a lot of challenges to teaching and learning, one of the main ones being the move from face-to-face teaching to an online approach (Tinnion, Simpson & Finlay, 2021). This forced GTAs to reconsider their role and the way in which they were teaching, which again led to changes in how they viewed themselves and their role. In the case of the GTA below, this was characterised by a transition from being a demonstrator working interactively with students face-to-face to one where the instruction moved to a more distanced online provision. This added a particular strain on the GTA who struggled with this identity transformation as echoed below:

> *"As a Graduate Teaching Assistant on an engineering-based course, the problem faced by me was how to plan and deliver highly interpersonal and interactive laboratory-based sessions to the small groups online. This was the time when we were*

[7] Reference to Schussler et al (2015)

completely cut off from socialising which was affecting my mental health."

Professional Development

However, the H2H initiative provided many opportunities for professional development for GTAs. Professional development can be defined as 'structured professional learning' (Darling-Hammond, Hyler & Gardner, 2017: v), that results in a change in teaching practices, anticipating both improvements to teaching ability and student learning outcomes. Moreover, early in a GTA's teaching role, it is especially important to develop a teaching philosophy and foster confidence in their ability to conduct a class (Lang, 2016). However, recently, it has been established that the educational systems both within the institution, and at a systemic level, can inhibit the professional development of a GTA (Darling-Hammond, Hyler & Gardner, 2017). A study by Ellis (2014) underpins the importance of professional development for GTAs and links this to the success of students and the institutions themselves. Furthermore, professional development may also support the development of communication skills and other transversal skills, as highlighted by one of the group when they commented:

"In my view, professional development can have two aspects, one is the GTAs' own goals or expectations from the work (in the form of growth or skills addition), and the other is driven by the Institute where the GTAs' are working. Thinking from the Institute's viewpoint, I would imagine an initiative such as the H2H at IT Carlow, allows GTAs to help students with additional learning support and

perhaps helps develop GTAs' into seasoned lecturers who can work with the Institute in the future."

It has been well documented that common introductory modules and practical classes are often the staple point of the GTA teaching experience (Seymour & Hewitt, 1997; Gardner & Jones, 2011; Ellis, 2014; Schussler et al., 2015). Research by Reeves et al. (2016) reports that 'introductory courses' are influential pathways to the attainment of undergraduate degrees. Moreover, due to the natural progression from undergraduate to postgraduate researcher, GTAs have a unique knowledge that is commonly seen as novice, given the context of experience (Kung, 2010) but that they are constantly developing in their role. Reports show GTAs are more open to student-centred teaching practices than that of their more experienced counterparts (Seymour, 2005; Ellis, 2014). While this makes the role of GTAs uniquely invaluable there is a lack of importance attached to professional development for GTAs. This point is echoed by one contributor's quote:

"A common problem faced by newly established postgraduate students, which I faced was the facet of hierarchical institutional structure. Throughout undertaking an undergraduate degree, it is expected that a student progresses from a medium low-level topical knowledge to delving into greater knowledge. As you progress through the years as an undergraduate, the additional responsibility of your actions increases with the weight of your voice. All building to a state of self-actualisation promptly associated with graduation. This was similar to my experience, although, to my surprise, the life of a

postgraduate researcher who teaches lacks compassion, often resulting in a feeling of isolation. The new responsibilities, expectations, and duties placed upon the shoulders of new postgraduates can often be associated with an overwhelmed sense of reactions, with little outlets to turn to."

This highlights the importance of institutions focusing on supporting GTA professional development. The proven traditional approach of self-evaluation is perhaps the first step in professional development for GTAs, so that they know where they started in terms of development and what their current progress reveals. Feedback from peers and experts in the field often helps one think of improvement opportunities and this all combines to help them develop in their roles. As an example of this, the H2H initiative enabled improvement opportunities through the weekly feedback sessions with the initiative coordinator. Summarising self-evaluation and feedback from experts and students, a GTA should be able to determine if, and in what context, professional development has happened, as flagged by one member of the group in the following contribution:

"From my perspective, professional development primarily arose through feedback received from undergraduate learners in the initiative and subsequent discussions with fellow GTAs regarding same. Specifically, undergraduate learners outlined what they perceived to be effective and not effective. Due to the nature of the initiative and the role of GTA's, this feedback from learners came from a wide range of disciplines. GTA's subsequently engaged in discussion and reflection regarding the implications

and applications of this broad feedback to their respective teaching practice. Notably, these dialogues and collective discussions were peer-led."

Feedback is an indispensable element of the learning process (Hattie & Timperley, 2007; Wisniewski, Zierer & Hattie, 2020), and a vital component of professional development for teachers (Knight, 2002; Ulker, 2021). While GTAs benefited from the facilitator and peer feedback on microteaching sessions incorporated within an introductory teaching and learning module, the context of Covid-19 and online remote classes reduced further such opportunities. In addition, UG learners' propensity to have their video off during online classes (Castelli & Sarvary, 2021) removed GTAs' ability to receive feedback from crucial nonverbal cues that would facilitate and contribute toward the moment reflection and evaluation (Schön, 1983; Miller, 1988). While some GTAs are fortunate to receive generous support from lecturers, successive lockdowns ensured actual feedback on teaching practice did not happen, resulting in GTAs not knowing whether or not they were developing professionally in their practice. With the traditional feedback loop disrupted, the H2H acted as a means for the GTAs to develop professionally, but in a different teaching environment, as they were exposed to the teaching and learning experiences of the undergraduate students and were able to reflect and refine their own practice based on this feedback. This was commented upon by one member of the group, as follows:

"The H2H initiative generated regular informal and detailed feedback from undergraduate participants in relation to aspects of their teachers' learning strategies. Approaches that learners felt were

particularly useful were highlighted, as well as practices that were not as effective as intended. It appears that the voicing of honest and unapologetic feedback was facilitated by the fact that undergraduate learners primarily perceived GTA's as fellow students. The design and delivery of the initiative also encouraged the building of trust from the outset."

During the Covid-19 pandemic, for us, it was felt that the traditional written feedback questionnaires, which would normally be completed by undergraduates to elicit feedback on pedagogical practices adopted by GTAs, may not have been beneficial, given that the context of teaching had changed dramatically. In addition, providing individual feedback on a GTA's early teaching performance at the height of a pandemic, that involved a sudden move to remote teaching, may well have been counterproductive. On the other hand, receiving broad H2H feedback from a range of students, across a variety of disciplines, ensured that any emotional response that may include embarrassment, stress, or withdrawal (Moore & Kuol, 2005; Arthur, 2009), on the part of the GTA, was effectively bypassed. Additionally, the input of disciplinary-specific knowledge from other GTA's added a layer of context that allowed individual GTA's to make sense of feedback and apply what was most relevant to the circumstances of their own individual practice, thereby supporting them to learn from each other.

Conclusion

This article presents the benefits of a co-created, postgraduate-led peer support initiative, that was central in

developing the GTAs' sense of belonging, teaching identity, and professional development. Through the H2H initiative, we became a GTA community of practice. It created an informal, non-judgemental social space to reflect on our own individual teaching practice, exchange ideas and knowledge, and build confidence in our teaching. Our pedagogical practice developed through a collaborative and iterative process (Bryk et al., 2015; Durksen, Klassen & Daniels, 2017). The initiative also enabled those of us who had yet to begin teaching, to gain insight from those who already had.

In addition, this initiative allowed us to receive direct feedback from undergraduates about their thoughts on effective teaching strategies and approaches to remote online classes. Through both peer support and undergraduates' feedback, we developed our teaching behaviours and practices (Gaertner, 2014) and engaged in what we perceived as 'improvement orientated actions' (Rohl, Bijlsma & Rollett, 2021: 3). Furthermore, the social connections we created as part of this initiative aided our mental well-being during the Covid-19 lockdown and attendant isolation.

Implications and Limitations

The H2H initiative has had a significant positive impact on developing our teaching identity and aiding our professional development. Investment of time and effort by the GTAs in building a community of practice, developing friendships, and focusing on professional development led to an increase in our own confidence as teachers. In addition, it helped us to be more reflective and had a positive effect on our teaching practice, thereby having benefits on a wider institutional

level. Our experience suggests that it would be advantageous for both educational institutions to have structured teaching practice provided to all GTAs so as to enhance their own practice. Furthermore, placing power and direction in the GTAs' hands, by supporting the co-creation of a professional development opportunity environment such as the H2H initiative allowed us to be more agentic in our professional development and to learn from each other in a safe and supportive way.

One limitation of this study is that the H2H initiative was conducted during an emergency situation relating to the onset of Covid-19 and may not be easily replicated now that students have transitioned back to onsite teaching activities, thereby limiting their availability to meet online as class groups. However, this study has highlighted that the underlying benefits of such an initiative are so numerous that consideration should be given to how more initiatives of this kind could be created across higher education institutions. Such initiatives would not only support undergraduates but would clearly help GTAs to improve their confidence, to develop their professional identity, to engage in professional development, thereby enhancing the learning experience for all.

References

Arthur, L. (2009). From performativity to professionalism: lecturers' responses to student feedback. Teaching in Higher Education, 14(4), pp. 441–454. doi:10.1080/13562510903050228.

Austin, A.E. (2002). Preparing the next generation of faculty: graduate school as socialization to the academic career. Journal of Higher Education, 73(1), pp. 94-122. doi:10.1080/00221546.2002.11777132.

Bochner, A. P. & Ellis, C. (2016). Evocative autoethnography: writing lives and telling stories. Abingdon: Routledge.

Bruner, J. S. (1961). The process of education. Cambridge, MA: Harvard University Press.

Bryk, A.S., Gomez, L.M., Grunow, A. and LeMahieu, P.G. (2015). Learning to Improve. How American schools can get better at getting better. Cambridge, MA: Harvard Education Press.

Castelli, F.R., & Sarvary, M.A. (2021). Why students do not turn their video cameras during online classes and an equitable and inclusive plan to encourage them to do so. Ecology and Evolution, 11(8), pp. 3565-3576. doi:10.1002/ece3.7123.

Chadha, D. (2013). Reconceptualising and reframing graduate teaching assistant (GTA) provision for a research-intensive institution. Teaching in Higher Education, 18(2), pp. 205-217. doi/10.1080/13562517.2012.696537

Clandinin, D. J. (2006). Narrative inquiry: A methodology for studying lived experience. Research studies in music education, 27(1), pp. 44-54.

Clandinin, D.J. & Connelly, F.M. (2000). Narrative inquiry: Experience and story in qualitative research. San Francisco: Jossey-Bass.

Colbeck, C. (2008). Professional identity development theory and doctoral education. New Directions for Teaching and Learning, 2008, pp. 9-16. Doi:10.1002/tl.304.

Darling-Hammond, L., Hyler, M.E. & Gardner, M. (2017). Effective teacher professional development. Palo Alto, CA: Learning Policy Institute.

Day, G. (2006). Community and Everyday Life. Oxford: Routledge.

Durksen, T.L., Klassen, R.M., & Daniels, L.M., (2017). Motivation and collaboration: the keys to a developmental framework for teachers' professional learning. Teaching and Teaching Education, 67, pp. 53–66. doi:10.1016/j.tate.2017.05.011.

Ellis, J. (2014). 'Preparing future professors: highlighting the importance of graduate student professional development programs in calculus instruction.' North American Chapter of the International Group for the Psychology of Mathematics Education. Paper presented at the Joint Meeting of the International Group for the Psychology of Mathematics Education (PME) (38th) and the North American Chapter of

the Psychology of Mathematics Education (PME-NA) (36th, Vancouver, Canada, Jul 15-20, 2014).

Fleuret, S. & Atkinson, S. (2007). Wellbeing, Health and Geography: A Critical Review and Research Agenda. New Zealand Geographer, 63(2) pp. 106-118. doi/10.1111/j.1745-7939.2007.00093.x.

Freire, P. (1970). Pedagogy of the oppressed. UK: Penguin Books.

Fung, D. (2021). Foreword: Fresh Air for Graduate Teaching Assistants. Postgraduate Pedagogies, 1(1), pp. 1-5. Available at: https://journals.studentengagement.org.uk/index.php/gtateach/article/view/1065 [accessed 12 October 2021].

Gaertner, H. (2014). Effects of student feedback as a method of self-evaluating the quality of teaching. Studies in Educational Evaluation, 42, pp. 91–99. doi:10.1016/j.stueduc.2014.04.003.

Gardner, G. E., & Jones, M. G. (2011). Pedagogical Preparation of the Science Graduate Teaching Assistant: Challenges and Implications. Science Educator, 20(2), pp. 31-41.

Giroud, A. (1999). Studying argumentative text processing through collaborative writing. In: J. Andriessen and P. Coiner (eds.), Foundations of Argumentative Text Processing. Amsterdam: Amsterdam University Press.

Hastie, A. (2021). 'Class Act: Reflections on a working-class academic sense of self as a Graduate Teaching Assistant'. Postgraduate Pedagogies, 1(1), pp. 27-46. Available at: https://journals.studentengagement.org.uk/index.php/gtateach/article/view/1055 [accessed 15 October 2021]

Hattie, J. & Timperley, H. (2007). The power of feedback. Review of Educational Research, 77(1), pp. 81-112. https://www.jstor.org/stable/4624888

Holland, T. (2018). Impact of a departmental instructional skills course on graduate students' beliefs about science teaching and learning. Journal of College Science Teaching, 47(6), pp. 57-65.

hooks, b. (1994). Teaching to transgress: education as the practice of freedom., New York: Routledge.

Knight, P. (2002). Being a teacher in higher education. Buckingham: Open University Press.

Kung, D. (2010). Teaching assistants learning how students think. In F. Hitt, D. Holton, and P. Thompson (Eds.). Research in Collegiate Mathematics Education VII (pp. 143–169). Providence, RI: AMS. doi:10.1090/cbmath/016/06.

Lang, J. (2016) Small Changes in Teaching: The First 5 Minutes of Class. The Chronicle of Higher Education. Advice, 11 January. Available at: https://www.chronicle.com/article/small-changes-in-teaching-the-first-5-minutes-of-class/ [accessed 17 October 2021]

Luft, J. A., Kurdziel, J. P., Roehrig, G. H. & Turner, J. (2004). Growing a garden without water: graduate teaching assistants in introductory science laboratories at a doctoral/research university. Journal of Research in Science Teaching, 41, pp. 211-233. doi/110.1002/tea.20004.

Mc Cormack, D., O'Neill, J., Ryan, M. B., & Walsh, T. (2020). Autoethnography in, and as, adult education: eavesdropping on a conversation. In Doing critical and creative research in adult education (pp. 73-85). Brill.

Miller, B. (2010). Brookfield's Four Lenses: Becoming a Critically Reflective Teacher. Faculty of Arts Teaching and Learning Committee, University of Sydney. Available at: http://sydney.edu.au/arts/teaching_learning/academic_support/Brookfield_summary.pdf [accessed 19 October 2021]

Miller, P.W. (1988). Nonverbal communication. what research says to the teacher, 3rd ed. Washington, DC: National Education Association Professional Library.

Moore, S. & Kuol, N. (2005). Students evaluating teachers: exploring the importance of faculty reaction to feedback on teaching. Teaching in Higher Education, 10(1), pp. 57–73. doi:10.1080/1356251052000305534.

Morris, C. (2021). 'Peering through the window looking in': Postgraduate experiences of non-belonging and belonging in relation to mental health and wellbeing. Studies In Graduate and Postdoctoral Education. doi:10.1108/SGPE-07-2020-0055

Munoz, SA., Farmer, J., Winterton, R. & Barraket, J. (2015). The Social Enterprise as a Space of Well Being: An

Exploratory Case Study. Social Enterprise Journal,. 11(3), pp. 281-302. doi:10.1108/SEJ-11-2014-0041

Pierson, C. (2018). "Neither teacher nor scholar: identity and agency in a graduate teacher's life". MA Thesis. Electronic Theses and Dissertations, 5994. Available at: https://stars.library.ucf.edu/etd/5994 [accessed 19 October 2021]

Reeves, T.D., Marbach-Ad, G., Miller, K.R., Ridgway, J., Gardner, G.E., Schussler, E.E. & Wischusen, E.W. (2016). A conceptual framework for graduate teaching assistant professional development evaluation and research. CBE—Life Sciences Education, 15(2), pp. 1-9. doi:10.1187/cbe.15-10-0225.

Roden, J. A., Jakob, S., Roehrig, C. & Brenner, T. J. (2018). Preparing graduate student teaching assistants in the sciences: An intensive workshop focused on active learning. Biochemistry and Molecular Biology Education, 46(4), pp. 318-326. doi:10.1002/bmb.21120

Rohl, S., Bijlsma, H., & Rollett, W. (2021). The process model of student feedback on teaching (STF). In: W. Rollett, H. Bijlsma, and S. Rohl (eds.). , Student Feedback on Teaching in Schools. Using Student Perceptions for the Development of Teaching and Teachers. Cham, Switzerland: Springer Nature.

Schlossberg, N.K. (1989). Marginality and Mattering: Key Issues in Building Community. New Directions for Student Services, 48, pp. 5-15.

Schön, D.A. (1983). The Reflective Practitioner: How Professionals Think in Action. New York: Basic Books.

Schussler, E. E., Read, Q., Marbach-Ad, G., Miller, K., & Ferzli, M. (2015). Preparing Biology Graduate Teaching Assistants for Their Roles as Instructors: An Assessment of Institutional Approaches. CBE life sciences education, 14(3), pp. 1–11. doi:10.1187/cbe.14-11-0196.

Seymour, P. H. K. (2005). Early Reading Development in European Orthographies. In M. J. Snowling & C. Hulme (Eds.), The science of reading: A handbook (pp. 296–315). Blackwell Publishing. https://doi.org/10.1002/9780470757642.ch16

Seymour, E. & Hewitt, N.M. (1997). Talking about Leaving: Why Undergraduates Leave the Sciences. Boulder, CO: Westview Press.

Sharpe, R. (2000). A framework for training graduate teaching assistants. Teacher Development: An International Journal of Teachers' Professional Development, 4(1), pp. 131-143. doi:10.1080/13664530000200106.

Tinnion, D., Simpson, T. & Finlay, M. (2021). Face-to-face teaching changed too! Perspectives on the transition from large to small group teaching and learning from graduate teaching assistants. doi:10.47408/jldhe.vi22.785.

Ulker, N. (2021). How can student evaluations lead to improvement of teaching quality? A cross-national analysis. Research in Post-Compulsory Education, 26(1), pp. 19-37. doi: 10.1080/13596748.2021.1873406.

Weidert, J. M., Wendorf, A. R., Gurung, R. A. & Filz, T. (2012). A Survey of Graduate and Undergraduate Teaching Assistants. College Teaching, 60(3), pp. 95-103. doi:10.1080/87567555.2011.637250

Wenger, E. (2000). Communities of practice and social learning systems. Organization, 7(2), pp. 225-242. doi:10.1177/135050840072002

White, J. & Nonnamaker, J. (2008) Belonging and Mattering: How Doctoral Students Experience Community. NASPA Journal, 45(3), p. 350-372. doi: 10.2202/1949-6605.1860.

Winstone, N. & Moore, D. (2016) Sometimes fish, sometimes fowl? Liminality, identity work and identity malleability in graduate teaching assistants., Innovations in Education and Teaching International, 54(5), pp. 494-502. doi:10.1080/14703297.2016.1194769.

Wisniewski, B., Zierer, K., & Hattie, J. (2020). The power of feedback revisited: a meta-analysis of educational feedback research. Frontiers in Psychology, 10, pp. 1-14. doi:10.3389/fpsyg.2019.03087.

One size fits *none* in international higher education: A UK-based case study on how to foster inclusive participation and active engagement in the classroom

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Abstract

This study analyses the challenges surrounding the promotion of inclusive participation and active engagement within Higher Education Institutions (HEIs) in an international context such as that of UK Universities. Starting from an analysis of the current UK Higher Education (HE) scenario (Organization of Economic and Cultural Development, 2019; Higher Education Statistics Authority, 2020), and giving an overview of the meaning of participation and engagement therein (Gibbs, 2014; Kubota, 2001; Ryan & Louie, 2007), this paper outlines the issues that may arise in HEIs. In line with research on participation and engagement in non-UK-based, albeit also international, institutions in Australia (Marlina, 2009), this paper presents evidence from student interviews on the same issues within the UK HE context during the COVID-19 pandemic (i.e., June 2021). Similarly to the students in Marlina's (2009) study, five undergraduate and

postgraduate students from different fields at the University of Edinburgh report a preference to participate in classes where instructors create a welcoming and safe environment. Importantly, a 'language barrier' (Lomer, 2017) is attested even among students fluent in English, therefore showing that a high level of proficiency in a second language does not guarantee inclusion when participating and engaging in university settings. Consequently, this highlights the centrality of the 'small culture' (Holliday, 1999) co-created by teachers and learners in the classroom - that is, a safe space for students of all cultural, linguistic and socio-economic backgrounds, which facilitates comfortable participation and engagement within HE settings. Ultimately, this study offers some pedagogical reflections and recommendations on how to foster inclusive participation and active engagement for all HE instructors, and particularly for graduate teaching assistants (GTAs) given the specific teaching settings in which they operate and their unique role within HE.

Keywords: *inclusive participation, active engagement, higher education, international students, small culture*

Introduction: International contexts and challenges in UK HEIs

In the 21st century, the movement of goods, services, capital as well as people, driven by globalisation, also includes an increase of international students in Higher Education (HE) (Organization of Economic and Cultural Development, 2019). In this context, the UK plays a pivotal role as an established destination for international students. It is the second global destination, with over 300,000 students from outside the European Union (i.e., non-EU students) in 2017/2018 and with 14% of the total HE student population constituted by international students (Higher Education Statistics Authority, 2020). When examining more closely institutions such as the University of Edinburgh, including EU students, the proportion is even more significant – non-UK students make up over 44% of the student population, coming from 180 nations, including more than 4,800 students from the EU (University of Edinburgh, 2021). In this international, thus multicultural, *milieu*, it is crucial for UK Higher Education Institutions (HEIs) to provide an internationalised curriculum, whereby focus is placed on the needs of international students from different cultural and linguistic backgrounds (Bennell & Pearce, 2003). Despite this evident need, the rather limited research on international pedagogies within HE highlights that both international students and staff report experiencing concrete challenges often attributed to a 'language barrier' and the lack of academic skills which British academic life requires (Lomer, 2017).

Moreover, it is important to point out that the use of the term 'international' embeds within itself a myriad of realities, which can be extremely different given their cultural specificity. While it is true that international students as a group are similar in terms of their not being 'national', the use of the term 'international' comes with the potential of obscuring the crucially important differences which exist among this very same group of students. If our ultimate aim, as HE practitioners, is to promote *inclusive* participation and active engagement, we must not forget that our inclusivity needs to be tailored to the diverse students' needs that international, as well as home, students may have. This paper thus delves into the challenges of inclusivity in international HEIs by providing an overview of participation and engagement in multicultural HE, along with key research findings from the Australian HE context where the 'small culture' (Holliday, 1999; Marlina, 2009) co-created by students and instructors in the classroom ensures a successful teaching and learning experience. We further discuss evidence from current international students enrolled in undergraduate (UG) and postgraduate (PG) degrees at the University of Edinburgh, which confirms the importance of a safe environment to facilitate participation and engagement of all students within HE, also in the UK. Finally, we provide some pedagogical reflections and recommendations on how to foster inclusive participation and active engagement for all HE instructors, and particularly for graduate teaching assistants (GTAs) given the specific teaching settings in which

they operate and their unique role within HE, as we will argue in our discussion.

An overview of participation and engagement in multicultural contexts

To understand the issues of participation and engagement within international and multicultural contexts, one must reflect on what participating and engaging in HE entails to begin with. What educators strive to stimulate in the classroom is *active* engagement with the materials presented to students, although much of what students learn tends to be forgotten as a result of the learning approach they use (Gibbs, 2014). *Deep* learning is the kind of approach HE teachers want their students to adopt; this is when students actively engage with materials in a personal way (i.e., by expressing one's own opinion on a topic, relating it to one's own experiences), which tends to leave a deeper mark in their memory as opposed to merely regurgitating knowledge, usually the result of *surface* learning (Marton & Säljö, 1976a; 1976b).

What is interesting to the present discussion is that active participation, the 'ideal' classroom behaviour (Kubota, 2001, cited in Kettle, 2005; Ryan & Louie, 2007), is oftentimes equalled to the outward manifestation of one's thoughts and feelings – in other words, talking (DeVita, 2005; Jones, 1999; McLean & Ransom, 2005). Dialogic exchanges between people are at the core of participation and interaction, as

means through which the transformation of individual and collective knowledge occurs (Vygotsky, 1978). The crucial point is that although non-EU and East Asian students are essential economic contributors to the UK HE context depicted at the beginning of the present paper, they are also reported to be 'educational drains in the classroom' (Lomer, 2017). Asian students, particularly those from China, are often framed as 'passive' (Karram, 2013), 'unparticipative' (Straker, 2016), and 'uncritical' (Song, 2016). Frequently, they are stereotyped as 'rote learners' (thus adopting the surface learning approach discussed above), unable and/or unwilling to learn from collaborative or creative pedagogies (Turner, 2013). This uncooperative and uninterested form of behaviour is often attributed to the students' culture. The evidence we review in the next paragraphs points, instead, towards a rather different direction, and is used, along with evidence from the interviews with UG and PG students carried out at the University of Edinburgh, to ultimately suggest a shift in pedagogical approaches in multicultural settings.

Evidence from Australian HE: The importance of classroom 'small culture'

Within the Australian HE context, Marlina (2009) carries out an investigation to analyse the underlying reasons why Asian students, specifically from East and South-East Asia, seem to be disengaged from classroom participation, often interacting less or preferring to listen, thus being categorised

as ‘passive’ or even ‘negative’ (MacKinnon & Manathunga, 2003). What Marlina (2009) argues, following interviews with four arts and humanities UG students from Korea, Japan, Brunei and China, is that seeing culture as the main explanation of students’ reluctance to speak equals only a partial understanding of the issue. Whilst, on the one hand, culture may play a partial role in explaining anyone’s behaviour, it would also imply a ‘monolithic nature’ of culture (Holliday, 1999) which, in this context, does not reflect contemporary Asian societies and classrooms. Indeed, the widespread idea that Asian students may not be speaking their minds as they regard teachers as absolute authorities, as a result of Confucianism, is refuted by evidence gathered by Cheng (2002) and Shi (2006). In fact, they find that contemporary Asian students do not accept teachers’ ideas without challenging them – they are, on the other hand, extremely critical of content, materials and learning environments (Cheng, 2002; Shi, 2006). A further point to consider, which relates to the aforementioned issues with the use of terms such as ‘international’, is that seeing culture as the main factor affecting a particular population’s behaviour equates to overlooking diversity within a country and/or individual differences such as religion, class, gender, and socioeconomic background (Shi, 2006). This would result in, to put it in Kumaravadivelu’s (2003: 714) words, “nothing more than a one-dimensional caricature of the learners”.

Central concepts in Marlina’s (2009) findings are the alternative ‘contextual approach’ (Biggs, 1999) and the

concept of 'small culture' (Holliday, 1999). In short, understanding Asian students' learning approaches in the classroom cannot prescind from looking at the context wherein it happens – i.e., the classroom itself – and, specifically, the 'small culture' which is co-created by teachers and learners. Students' reluctance to participate may be triggered by a lack of support, warmth, mutual respect, acceptance and responsibility on behalf of the instructors (Campbell & Li, 2008; Clark & Gieve, 2006). Indeed, Marlina's participants report a strong preference towards participating in tutorials wherein tutors create a comfortable and safe learning atmosphere, where teachers convey their enthusiasm for the subject and show acceptance of students' opinions through positive reinforcement and/or their body language.

The other interesting, and often overlooked, point emerging from Marlina's interviews is that talking is only *one* way through which students can participate in HE. In fact, some of the interviewees believe that there is only so much talking one can do, and that responding quickly is not always the best way of engaging in the classroom as the risk of making mistakes under time pressure, without thinking deeply enough about a topic, could be high (Marlina, 2009). On the other hand, participants report other ways of engaging with materials including but not limited to: listening to lecturers' and other students' thoughts and ideas, reading, researching, and lastly thinking.

Ultimately, the evidence outlined in Marlina's (2009) case study seems to refute the common-view idea of Asian students not valuing participation. Rather, when keeping quiet, students are consciously deciding not to engage, as they are either actively processing ideas before seeking an opportunity to voice them or withdrawing from participation due to a factor related to classroom 'small culture', e.g., teachers' impatient or non-verbal behaviour, possibly interpreted as condescending or disrespectful. Given the findings in the Australian HE context, we wished to explore whether similar issues and views regarding participation and engagement were present within the UK HE context. In the next section, we thus present evidence gathered from interviews with UG and PG international students at the University of Edinburgh.

Methodology

In order to gauge the experiences of international students with engagement and participation in the UK HE context, we carried out short, structured interviews with five students at the University of Edinburgh. At the time of the interview, three of the students were enrolled on UG degrees and two of them were studying for degrees at PG level. Their degrees spanned a wide variety of fields (e.g., arts, humanities, social sciences, science and engineering) and their cultural backgrounds were extremely varied, representing the following five countries: China, India, Ireland, Lebanon and Norway. The students, who were all enrolled on one of our

courses[8] in 2020-2021, were invited to take part in the interviews shortly after the end of their course in June 2021. Participation was voluntary and non-retributed.

Given the ongoing COVID-19 pandemic, the structured interview took place online. The students were emailed the following questions and were asked to submit their answers as one-minute audio recordings:

Q1. Which issues, if any, have you experienced as an international student when participating and engaging in the classroom (e.g., in tutorial activities, lecture participation etc.)?

Q2. Is there anything that lecturers and/or classmates could do to make you feel more at ease when participating and engaging in classroom activities?

Participant data have been pseudonymised and full recordings have been made publicly available on the Open Science Framework (OSF) website, where they can be retrieved on the authors' profiles.

[8] Students were enrolled either on a language course (Foundation Italian 1 or Italian 1) in the Department of European Languages and Cultures or an interdisciplinary course (Currents: Understanding and Addressing Global Challenges) at the Edinburgh Futures Institute.

Results

Issues when participating and engaging in the classroom

When discussing the issues experienced during participation and engagement in the classroom (Q1), two students highlight the existence of a language barrier which goes beyond one's proficiency in the second language (L2). Thus, a high level of L2 proficiency (i.e., when speaking, listening, writing and reading), usually certified by language tests required to enrol in a degree, does not guarantee inclusion when participating and engaging in the classroom. Specifically, the communicative skills required to participate and engage at university go beyond the mere grammatical rules learnt to pass a language examination. This is attested even in highly proficient L2 speakers, such as in the case of Stud1, who despite being very fluent in English at the time of the interview, admitted not feeling very comfortable when expressing themselves when they began University:

"I think I struggled the most when I first began University. That was mainly because I wasn't as confident in my English skills, so I didn't necessarily feel like I could express my opinion or my arguments effectively…" (Stud1)

Similar struggles are expressed by other interviewees, such as Stud2, who reported the lack of courage to formulate

personal opinions in debates when asked to participate in tutorial discussions. Not only is language one of the barriers perceived by the students, but also cultural differences prove to be detrimental to active participation - even in students who speak English as their first language (L1), such as in the case of Stud3. Indeed, much of the material used in university classes, at least in arts and humanities courses, is highly localised (i.e., including references to Scottish and/or UK linguistic/cultural/historical events), which may make it difficult for international students to properly understand a specific topic and possibly contribute to a discussion. Other interviewees, such as Stud4, go as far as to say that "*the most difficult part … is to figure out which way to participate or engage in the class*". Indeed, international students often come from educational and cultural settings where expectations on participation and engagement may be different from the ones in the UK. In fact, as noted by Stud4, no pre-course training is provided in this specific respect for PG courses in the social sciences. Consequently, some students feel lost when they may be keen to participate, but do not know how participation works in this new environment – when there are also cross-cultural differences in turn taking, as outlined by Stivers et al. (2009). Ultimately, interviewees such as Stud5, point out that international students must undergo a major process of adjustment to a different education system, which takes time. This is even harder for PG students, who usually only have one year to complete their degrees. In the next section, we present students' opinions on how this process of adjustment may be

sped up by HE instructors, to ultimately facilitate the inclusion of international students when required to participate in the classroom.

Ways to facilitate inclusion and enhance participation

When asked what HE instructors could do to make students feel more at ease when participating and engaging in classroom activities (Q2), all interviewees unanimously reported the need for instructors to create a safe and respectful environment, wherein the process of adjusting to a new HE system is sped up for international students, and all students feel comfortable interacting with one another. For instance, Stud1 suggested that instructors "*set the tone*" of the class so that students are mindful of everyone's pace as, in their experience, students tend to take over the discussion and it may take longer for an international student to find the right word to express a concept.

Furthermore, a balanced integration among students of different backgrounds may "*spark new ideas or start new discussions*" (Stud3). Said integration can be achieved in different ways: firstly, through group work (Stud3) in which students' points of views may differ - thus bringing new perspectives and enriching discussions. Secondly, although it is often the case that students are seen as the ones having to adjust, our interviewees point out that instructors should also understand who their students are, where they come from, and what specific challenges they may be facing

(Stud4). In this light, taking the time to know one's students and adapt to them as instructors *as well as* giving students the time to know each other before class (e.g., through an ice-breaker activity; Stud2 and Stud5) represent two sides of the same coin for a successful learning and teaching experience. Lastly, the variety of students' needs, given the issues they may face not only in HE but also as migrants in their day-to-day life, makes it necessary to adopt a multifaceted approach to teaching – or, as Stud5 says,

"*It is important to understand that the process of adjusting and moving to a country is a very huge step that an international student takes, which is why tutorials should be tailored around the needs of the students, as there is no one-size-fits-all approach to delivering quality education* [emphasis added]*."* (Stud5)

In light of the evidence gathered from both the Australian and the UK HE contexts, in the next section we put forward some concrete pedagogical suggestions to foster participation in intercultural HE settings for HE instructors.

Discussion and suggestions to foster participation and engagement in HE

Given the evidence Marlina (2009) gathered from four international UG students within the Australian HE context,

and our interviews with five international UG and PG students within the UK HE context, the importance of the classroom culture co-created by instructors and students should not be overlooked. Indeed, international students, despite the umbrella term used to describe them, constitute a very *heterogeneous* group of learners, whose engagement within HE may be influenced by their cultural and educational background (Trout, 2018), but also, and most importantly, by the classroom environment in which said engagement is to take place. HE instructors thus play an enormous role in the creation of a comfortable and safe environment, as also highlighted by the interviewees' comments, which nurtures students' identity formation through dialogic exchanges and a sense of community.

Among HE instructors, it is important to point out that GTAs play a unique role in implementing the 'small culture' (cf. Section 3) that allows students' identity formation, given the specific teaching settings in which GTAs operate. There is usually a smaller number of students attending GTAs' classes, as opposed to larger numbers of students attending lectures, which creates favourable conditions for students to safely and comfortably engage in the classroom. GTAs have plenty of opportunities to establish a real connection with their students, for instance by investing time during their very first classes to get to know their students, their backgrounds, and their past experiences both within and outside academia, as appropriate. This way, GTAs could build on students' experiences and personal stories, possibly referring to these

when going over class materials, ultimately leaving students feeling remembered and valued as 'somebody' (Kettle, 2005). In particular, international GTAs may be more aware of the potential difficulties of studying abroad, having experienced these themselves. By sharing their own experiences and personal stories with their students, international GTAs can thus empathise with international students, which helps speed up the creation of a classroom 'small culture'.

Moreover, as participation is both 'personal and social' since it involves a person physically, cognitively, and socioemotionally (Wenger, 1998), when students contribute they portray something of themselves to the whole group, unfolding cues about their being, values, and thoughts. In this light, as some of our students at the University of Edinburgh suggest, students should be given the appropriate time to socialise and get to know each other too, before engaging with subject materials and sharing their thoughts, in order to allow them to open up in a familiar and safe environment. Another way to ensure that students feel safe in the classroom could be for instructors to share relevant information about themselves, for instance, by sharing the pronouns by which they would rather be addressed. This could be a way to make students feel more at ease and build trust between instructors and learners.

In the context of international students who do not speak English as an L1, language competence may cause anxiety in discussions (Straker, 2016). It is also important to remember

that although admission to university usually requires a certified level of English, holding a language qualification of even high proficiency does not guarantee that one will be able to understand everything said or referred to. These language barriers especially exist when it comes to technicisms, colloquialisms, jokes and/or irony. As outlined by some of our interviewees, the barrier may also be cultural, when much of the material used in HE is highly localised. Due to this, HE instructors should aim to be as explicit as possible, both when giving instructions and feedback, in order for these to be as accessible as possible to everyone in the classroom.

Lastly, it must be highlighted that talking is not the only mode of active engagement. Given that some students value listening, reflecting and evaluating above speaking (Tatar, 2005), awareness should be raised among HE practitioners around the fact that listening, thinking, reading, researching, and writing are also valid forms of *active* engagement. While gauging the participation levels of those who keep quiet may be difficult, stimulating participation through group work for instance could be a way to engage shy students more inclusively, both with the subject and with each other, providing the co-creation of an intercultural safe space outlined herein. In the promotion of inclusive and accessible participation in international HEIs, instructors should recognise that not everyone will be an extroverted contributor. Moreover, even though similar challenges may be faced by many international students, such as the

aforementioned linguistic and cultural challenges, co-creating a space wherein *all* students feel safe to participate and interact, and learn from one another, should be the main aim of HE instructors.

Limitations and future research directions

The findings in this study come with some limitations that should be addressed. Firstly, the one-minute restrictions in our structured interviews, imposed due to the nature of our data collection procedure (i.e., online submissions after careful reflection), could be lifted in a semi-structured interview to allow more time to think, process, reflect and expand on answers. Moreover, while our study only asked two questions, future research could employ multiple questions to probe deeper into the distinct roles of GTAs, lecturers and classmates in student participation and engagement. Furthermore, although our interviews took place in 2021, while teaching was restricted to the online environment given the ongoing COVID-19 pandemic, our research did not explicitly address the implications of online and hybrid teaching settings on participation and engagement. Thus, future research could explore how inclusion and participation may change with blended hybrid learning and the increasing use of digital technologies, as well as how to achieve and sustain inclusion and participation in different teaching contexts. Lastly, given the limited sample size of the present study, future research could employ a larger and more diverse group of students,

representative of the wider HE student population (e.g., students from different countries, degrees, and/or at different stages of their degree).

Conclusions

To conclude, this paper has highlighted some of the issues faced in the promotion of inclusive participation and active engagement within the context of international HEIs. The evidence gathered at the University of Edinburgh suggests that the body of students within UK HE is increasingly *diverse*. To avoid a dichotomy between home and international students - both of whom can still be rather diverse groups within themselves - HE instructors should focus on creating a safe space for *all* students to feel comfortable engaging in. They should pay particular attention to the specific needs of individual students, whilst at the same time moving away from preconceived notions of monolithic cultures one may otherwise fall into. Ultimately, the 'small culture' co-created in the classroom by teachers and learners seems to be the key success in HE teaching and learning. To help students overcome some of the challenges faced when participating and engaging in the classroom, some of the suggestions put forward for all HE practitioners include: setting expectations and giving instructions clearly and explicitly, taking time to know one's students whilst also giving them time to get to know each other, and ultimately keeping in mind that not all students are the same or will choose to engage similarly in the classroom. Importantly,

GTAs are particularly well suited to implement these suggestions successfully, given the unique make-up of their classrooms, and international GTAs can even more promptly create a safe and welcoming environment, due to their greater awareness of international students' needs. Future research in UK HE could employ a more comprehensive methodology, with a larger and diverse sample size, and further investigate the challenges faced by students within different teaching and learning environments.

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References

Bennell, P., & Pearce, T. (2003) 'The internationalization of higher education: Exporting education to developing and transition economies', *International Journal of Educational Development,* 23, pp. 215–232. DOI:10.1016/S0738-0593(02)00024-X

Biggs, J. (1999) *Teaching for quality learning at university: What the student does*. Buckingham: Open University Press.

Campbell, J. & Li, M. S. (2008) 'Asian students' voices: An empirical study of an Asian students' learning experiences at a New Zealand university', *Journal of Studies in International Education*, 12(4), pp. 375–396. DOI:10.1177/1028315307299422

Cheng, X. (2002) 'Chinese EFL students' cultures of learning', in Lee, C. and Littlewood, W. (eds.) *Culture, communication and language pedagogy*. Hong Kong, Special Administrative Region, China: Hong Kong Baptist University Press, pp. 103–116.

Clark, R. & Gieve, S. (2006) 'On the discursive construction of 'the chinese learner'', *Language, Culture and Curriculum*, 19(1), pp. 54–73. DOI:10.1080/07908310608668754

DeVita, G. (2005) 'Fostering intercultural learning through multicultural group work', in J. Carroll and J. Ryan (eds.), *Teaching international students: Improving learning for all*. London, England: Routledge, pp. 75-83.

Gibbs, G. (2014) '53 powerful ideas all teachers should know about: Much of what is learnt is forgotten, idea number 5', *Staff and Educational Development Association (SEDA)*, May. Available at: https://www.seda.ac.uk/resources/files/publications_149_5%20Much%20of%20what%20is%20learnt%20is%20forgotten.pdf (Accessed: 25 April 2022).

Higher Education Statistics Authority (2020) *Higher education student statistics: UK, 2018/19*. Available at: https://www.hesa.ac.uk/news/16-01-2020/sb255-higher-education-student-statistics (Accessed: 25 April 2022).

Holliday, A. (1999) 'Small cultures', *Applied Linguistics*, 20(2), pp. 237–264. DOI:10.1093/applin/20.2.237

Jones, J. F. (1999) 'From silence to talk: Cross-cultural ideas on students' participation in academic group discussion', *English for Specific Purposes*, 18(3), pp. 243–259. DOI:10.1016/S0889-4906(97)00059-8

Karram, G. L. (2013) 'International students as lucrative markets or vulnerable populations: A critical discourse analysis of national and institutional events in four nations', *Canadian and International Education. Education Canadienne et Internationale*, 42(1). DOI:10.5206/cie-eci.v42i1.9223

Kettle, M. (2005) 'Agency as discursive practice: From 'nobody' to 'somebody' as an international student in Australia', *Asian Pacific Journal of Education*, 25(1), pp. 45–60. DOI:10.1080/02188790500032525

Kubota, R. (2001) 'Discursive construction of the images of US classrooms', *Tesol Quarterly*, *35*(1), pp. 9-38. DOI:10.2307/3587858

Kumaravadivelu, B. (2003) Problematizing cultural stereotypes in TESOL. TESOL Quarterly, 37(4), 709–719. DOI:10.2307/3588219

Lomer, S. (2017) *Recruiting international students in higher education representations and rationales in British policy*. Basingstoke: Palgrave Macmillan.

MacKinnon, D. & Manathunga, C. (2003) 'Going global with assessment: What to do when the dominant culture's literacy drives assessment', *Higher Education Research and Development*, 22(2), pp. 131–144. DOI:10.1080/07294360304110

Marlina, R. (2009) ''I don't talk or I decide not to talk? Is it my culture?' – international students' experiences of tutorial participation', *International Journal of Educational Research*, 48, pp. 235-244. DOI:10.1016/j.ijer.2009.11.001

Marton, F. & Säljö, R. (1976a) 'On qualitative differences on learning: I – outcome and process', *British Journal of Educational Psychology*, 46(1), pp. 4-11. DOI:10.1111/j.2044-8279.1976.tb02980.x

Marton, F. & Säljö, R. (1976b) 'On qualitative differences on learning: II – outcome as a function of the learner's conception of the task', *British Journal of Educational Psychology*, 46(2), pp. 115-127. DOI:10.1111/j.2044-8279.1976.tb02304.x

Mclean, P. & Ransom, L. (2005) 'Building intercultural competencies', in J. Carroll and J. Ryan (eds.), *Teaching international students: Improving education for all*. London, England: Routledge, pp. 45-62.

Organization of Economic and Cultural Development (2019) *Students – international student mobility – OECD data*. Available at: https://data.oecd.org/students/international-student-mobility.htm (Accessed: 25 April 2022).

Ryan, J. & Louie, K. (2007) 'False Dichotomy? 'Western' and 'Confucian' concepts of scholarship and learning', *Educational Philosophy and Theory*, 39, pp. 404-417. DOI:10.1111/j.1469-5812.2007.00347.x

Shi, L. J. (2006) 'The successors to Confucianism or a new generation? A questionnaire study on Chinese students' culture of learning English', *Language, Culture and Curriculum*, 19(1), pp. 122–147. DOI:10.1080/07908310608668758

Song, X. (2016) ''Critical thinking' and pedagogical implications for higher education', *East Asia,* 33(1), pp. 25–40. DOI:10.1007/s12140-015-9250-6

Stivers, T., Enfield N. J., Brown P., Englert C., Hayashi M., Heinemann T., Hoymann G., Rossano F., Peter de Ruiter J., Yoon K-E & Levinson S. C. (2009) 'Universals and cultural variation in turn-taking in conversation', *Proceedings of the National Academy of Sciences*, 106(26), pp. 10587-10592. DOI:10.1073/pnas.0903616106

Straker, J. (2016) 'International student participation in higher education: Changing the focus from 'international students' to participation', *Journal of Studies in International Education,* 20(4), pp. 299–318. DOI:10.1177/1028315316628992

Tatar, S. (2005) 'Classroom participation by international students: The case of Turkish graduate students', *Journal of Studies in International Education*, *9*(4), pp. 337-355. DOI:10.1177/1028315305280967

Trout, İ. Y. (2018) 'Integration into a PhD program: An arts-based research approach to examine the experiences of doctoral students', A*cta Paedagogica Vilnensia,* 40, pp. 25-41. DOI:10.15388/ActPaed.2018.0.11886

Turner, Y. (2013) 'Pathologies of silence? Reflecting on international learner identities amidst the classroom chatter', in Ryan J. (ed.) *Cross cultural teaching and learning for home and international students: Internationalisation of pedagogy and curriculum in higher education.* London: Routledge, pp. 227-240.

University of Edinburgh (2021) 'A European university', *The University and Europe*, 14 September. Available at: https://www.ed.ac.uk/news/eu (Accessed: 25 April 2022).

Vygotsky, L. (1978) *Mind in society: The development of higher psychological processes.* Cambridge, MA: Harvard University Press.

Wenger, E. (1998) *Communities of practice: Learning, meaning, and identity*. Cambridge University Press.

Teaching the Teachers: Reflections from two Graduate Teaching Assistants

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Abstract

This paper offers a critical reflection on the experience of two former Graduate Teaching Assistants (GTAs) - the authors - who were tasked with creating a digital learning program during the first UK national lockdown in 2020. The program drew from an emerging body of literature that seeks to employ Freirian pedagogies in the digital classroom and was designed to equip both new and established members of faculty with the skills needed for online teaching. While taking on this challenge, however, the experienced GTAs found that their pedagogical instincts and practices were challenged by their positionalities as young Early Career Researchers (ECRs) from underrepresented groups in British Academia. The aim of this paper is thus to scrutinise the potential for online learning to democratise and shift perceived hierarchies within academia, not only for students, but for ECRs navigating the structures of university teaching in the current employment climate.

This paper offers a critical reflection on the experience of two former Graduate Teaching Assistants (GTAs) - the authors - who were tasked with 'teaching the teachers' at the Department of International Development (DID) at King's College London during the UK's first national lockdown in 2020. The 'teaching the teachers' program included workshops and learning activities that we designed to train senior academic staff as they prepared to teach online, many for the first time. DID approached us as experienced GTAs with a successful track record of using these tools in our teaching, as well as experience in delivering teacher training in the past. The program included everything from how to navigate subtle aspects of *Keats* (the internal learning management platform at KCL) and use external software tools such as *Padlet, EduFlow, Mentimenter,* and *Kahoot*, to how to record and edit lectures and manipulate user interfaces for maximum impact. Our program, like our day-to-day teaching of students, was guided by the work of noted Brazilian pedagogist Paulo Freire and his theories relating to the concept of a 'pedagogy of the oppressed' (Freire, 1968).

While taking on this challenge, we found that our pedagogical instincts, practises, and methods were particularly challenged by our positionality as two Early Career Researchers (ECRs) from underrepresented backgrounds (in terms of gender, race, class and citizenship) in British Academia. As we implemented blended, digital, and active learning techniques to deliver the staff training program, we were pushed to reflect upon the perceived academic hierarchies that engulf us and shaped our role within the broader team of staff. While we were able to make an impact on teaching and learning in the department, we were unable, as might be expected, to translate this into

serious change in the academic hierarchies which have and continue to bind ECRs.

We use this reflection-on-action (Schön, 1983) of our experiences to initiate an important dialogue about how digital learning might impact workplace relationships, especially between experienced and new members of academic staff. This essay dialogues with recent scholarship on digital pedagogical design and delivery as well as literature concerning inequality and the casualisation of employment within higher education institutions. Most extant scholarship focuses on the potential for online learning to enhance the learning-teaching experience. Such research continues to focus on the experience of learners, leaving aside the relationship between educators, their colleagues, and their employers, as well as the potential for online education to reinforce rather than break down employee hierarchies and inequalities in higher education. It is to these questions that our present reflection now turns. In this way, our aim is to scrutinise the potential for online learning to democratise and shift perceived hierarchies not only for students, but for ECRs navigating the structures of university teaching in the current employment climate.

Freire in the Digital Age

The recent turn to online learning, loosely defined as learning that takes place online, remotely, and at a distance, as opposed to in the traditional classroom, has catalysed a wave of new scholarship, much of which has emphasised the transformative and inclusive potential of online learning. At least in the Global North, the COVID-19 pandemic that forced education into the virtual sphere has also come at a time of

passionate debate surrounding the 'decolonisation' of curricula and universities more broadly. In this context, the conceptual and theoretical frameworks offered by Freire have seen something of a revival within pedagogical research, having been called upon to contemplate how online learning might challenge the social hierarchies and inequalities that are replicated in the classroom.

For Freire (1968), traditional methods of education that follow a 'banking' system, whereby the student is measured in terms of their ability to memorise and repeat information, reflect colonial power relations. In such relations, the teacher takes on the role of colonial oppressor, however benevolent and charitable, by reinforcing hierarchies of knowledge production. In this process, the teacher and student alike perpetuate relations of oppression; the teacher, by banking knowledge, and the student, through a phenomenon Freire terms 'internalised oppression' (1968: 47), which describes the student who passively takes on new knowledge without active critical engagement or reflection. The danger here is not only that the creation of new knowledge is neither encouraged nor valued, but that students who are unable to relate to or see themselves in the information they are being asked to memorise can fall into what might typically be perceived as disengagement or poor performance.

In Freirian practices, oppressive pedagogies are challenged first and foremost by creating a two-way dialogue between teacher and student. It is through this equal dialogue that new knowledge is produced, knowledge that draws from the worldview of all participants. In a process Freire calls 'conscientisation', students are 'liberated' (ibid: 66-67): they see themselves in and identify with the learning materials,

and they become actively engaged in challenging their reality both within and outside the classroom. Transferring aspects of Freirian practices to both the physical and virtual classroom is thus understood as a potential not only to decolonise learning content, but to combat educational inequality, promote social justice, and support students in fulfilling their utmost potential as actors in the world (ibid).

Applying Freirian theories and practices to the virtual realm require readjusting our lenses to identify what Gariola (2021) calls the 'digitally oppressed'. The digital resources, media, and tools that make online teaching possible carry their own colonial baggage that can be internalised by educators and learners alike in ways we might not be attuned to (ibid: 36). Access to quality internet, physical spaces that are conducive to learning, and basic technological skills are all examples of factors that combine with existing inequalities reinforced by the banking method and resultant learned oppression.

Several case studies have been undertaken to explore the more practical dimensions to this process. In a qualitative study of 78 students over the course of four semesters, Blau, Shamir-Inbal, and Avdiel (2020) demonstrated that the Digital Literacy Framework (DLF) not only supported learners in developing their own digital literacy, effective communication, and collaboration skills, but also their "sense of ownership over learning outcomes" (ibid: 1). What follows this sense of ownership is what Freire would understand as the liberatory potential of education: by being able to identify themselves in learning outcomes, students are able to actively participate in the world and their position within it.

Such outcomes are not a given: it is all too easy to assume that online learning is inherently more inclusive, accessible, and value-free, however, certain precautions need to be taken (Montelongo & Eaton, 2020). To ensure inclusivity and the 'liberating' potential of education, measures such as being less stringent on attendance, creating asynchronous learning content, and diversifying formats (audio, captions, etc.) have all been cited as ways to support more inclusive dialogue (Sousa, 2021). Dialogue itself is another understudied challenge; scholars have noted the importance of effective engagement to support learner-facilitator interaction and collaboration, educators' understanding of learner expectations, and the most effective tools for enhancing the user experience (Regmi & Jones, 2020). Tools that facilitate social media-style interaction, such as blogs (DeWaard & Roberts, 2021), and simulate face-to-face classroom time strengthen the potential for online learning to support meaningful relationships (Mehta & Aguilera, 2020), socialisation, and the collaborative creation of content (Greenhow & Galvin, 2020). It is also crucial that students understand the technology being used as well as how to use them to engage with their peers and teachers (Bedenlier et al., 2020).

With recent scholarship, therefore, educators such as ourselves have been provoked to think about the many ways that liberatory pedagogical practices can be transposed from the physical to the online classroom, as well as how they need to be adapted in line with the particularities of digital tools at our disposal. What recent literature has not accounted for, however, is what happens when the teachers become the students. With the sudden shift to online learning catalysed by the Covid-19 pandemic, educators at all

levels were forced to return to the (digital) drawing board and rethink entirely the delivery mechanisms for their teaching content. With this, we scrutinise the potential for digitised Freirian theories and practices to be employed when training and educating the educators themselves. We also question whether, and if so how, liberatory processes continue to hold when applied to teachers rather than traditional learners.

Teaching the Teachers

Over the Summer of 2020, the authors, at the time employed as Graduate Teaching Assistants (GTAs), were tasked with 'teaching the teachers' to swiftly make the transition to delivering their classes online. While most faculty were able to finish off the 2020 spring term with basic knowledge of online tools such as *Teams* and *Google Docs*, the start of the 2020 autumn term necessitated a more holistic and dedicated venture into online teaching as the Covid-19 pandemic refused to subside. We approached the challenge in the same way as we would student teaching; by designing the online workshops and activities for our senior colleagues with the intention of cultivating two-way learning and encouraging inclusivity, active learning, collaboration, and mastery of a range of media and digital tools.

We called our program 'teaching the teachers', which consisted of three major components. The first was to explore a host of online tools and prepare training materials that would help our department's teachers adapt to online delivery. These included KCL-specific tools as well as external tools such as *Padlet*, *Eduflow, Kahoot*, and *Mentimeter,* to name a few. The second was to deliver three training

sessions to more junior GTAs and faculty on how to incorporate these tools in their teaching. Finally, we worked with nine individual faculty members to adapt existing in-person learning content to the online space. Our efforts ranged from teaching faculty members how to frame their camera angles correctly to record and deliver online lectures, to identifying software to allow a faculty member to continue their weekly peer-to-peer review writing exercises.

Like in our day-to-day teaching of students, Freirian concepts and methods relating to learned oppression and two-way dialogue sat at the back of our minds as we designed and delivered the program. During the entire process, we were aware of our own positionality – subject to numerous hierarchies (gender, race, class and citizenship) – which we have had to overcome while working with faculty. Firstly, we were both ECRs working on zero-hour contracts tasked with working with full time, permanently employed faculty. A 2019 UCU survey showed the rampant prevalence of these types of contracts. For example, the report showed that 68% of research staff in higher education are on fixed term contracts. Further, 78% of participants reported regularly working more hours than they are paid for in order to do their jobs properly (UCU, 2019). Staff in such situations of precarity associate their employment status with numerous other challenges: the ability to make ends meet and pay bills, needing more than one job, detrimental impacts on mental health and family planning, the quality of teaching, and their ability to carry out research and publish. All of the above add to a cycle of stunted academic career progression – a position of 'oppression', in Freirian terms.

Our race, gender, and economic status were also factors that impacted our coordination of this program, as they do our wider experience as employees. As shown in a 2021 report by the UK Political Science Association, there are consistent disparities amongst employees in political science departments across the country. For example, in the 2018/19 academic year, 61% of staff were male, and 78% were white (Hanretty, 2021). This overrepresentation becomes worse the higher up the ladder academics go. Men and white members of staff are over-represented at senior levels: only 29% of senior academics (senior lecturers, readers, professors) are female, and only 13% are from an ethnic minority (ibid). In our own experience, as well as through anecdotal evidence gained in conversations with fellow ECRs (see also Wilkinson, 2020), entering academia on these grounds adds to a sense of inferiority that perversely leads professional achievements to be interpreted as good fortune or charity.

In this way, it is clear that Freirian concepts of learned oppression are felt not only by students, but also by ECRs – including GTAs and hourly paid lecturers (HPLs). 'Imposter syndrome' is by comparison insufficient, as it individualises and privatises the process through which individuals from underprivileged or underrepresented backgrounds find themselves feeling inferior and inadequate in a given environment. We reflected on the way that the precarious nature of our employment contracts led us to taking on the work in the first place; a drive to make ourselves indispensable and necessary to the department's functioning had over the years led us to self-exploit, to the point where we were even proposing ideas for additional work we could take on. Along similar lines, offers of additional hourly paid

work, however menial or counter-productive to our careers, were received with gratitude and a feeling of being valued.

These are classic examples of learned oppression in the Freirian sense. The request for and grateful acceptance of 'charity' perpetuates a myth of heroism on behalf of the donor, and signals that the 'oppressed' has internalised and aspires to the superiority of the 'oppressor' (Freire, 1968: 46;140). Indeed, on a number of occasions in the past we had found ourselves resisting our understanding of what constitutes productive teaching time. In terms of GTA work for module convenors, hourly budgets constrained by college-level decisions meant that we regularly had to de-prioritise our goals of making teaching content and activities more accessible and liberatory to focus on other things, such as administrative work. This comes amidst a broad range of examples of how GTAs feel forced either to compromise on the quality of their teaching or spend significant hours carrying out unrecognised labour[9].

Reflection-on-Action

Looking back now, it might seem like the work we did was easy and could be considered overkill. However, in mid-2020, the academic world had not fully incorporated TEL tools and techniques, primarily because there was no major need to do so. Therefore, our program which introduced faculty to new tools for online teaching such as *Padlet*, *EduFlow, Kahoot,* and *Mentimeter*, along with our one-to-one consultancy with individual faculty members on module development was new

[9] See the 2020 survey carried out by the King's College London GTA campaign: https://kclgtas.wordpress.com/2020/11/26/fair-pay-for-gtas-start-of-term-survey-results/ [site last accessed 01/05/2022].

and vital to meet the need of the hour. By the following spring, we were encouraged following our presentation at the King's College London's *Learning and Teaching* conference to reflect on our experience. Guided by the conference theme of 'working together for a world-class education', we thought about how crucial we perceived our contribution to the department to have been in those critical months of uncertainty, both for staff and students. At the same time, we looked at our continued situation of precarious employment, and thought about how 'teaching the teachers' had influenced, and been influenced by, department collaborations marked by unequal power dynamics.

Carrying out a simple activity of collective reflection-on-action, we returned to our Freirian conceptual frameworks to revisit the process from start to finish. We also reached out to senior faculty to understand how they looked back on the program, and whether they even remembered it.

At the end of the day, most academics had taken on board what they had learned as they incorporated new content, methods and tools into their teaching, be it online, hybrid, or in-person. Our ideas and approaches were mixed into the process; we had, through dialogue and two-way learning, been valued as knowledge producers. Senior faculty provided the following breakdown of what they understood our contribution to have been:

- In the transition to online learning, work as teaching teams – with GTAs who had experience on modules, in particular – was essential to planning interactive activities.

- This included designing asynchronous activities (e.g. use of Padlet, quizzes, discussion fora) for students to complete ahead of lectures and seminars, to ensure that they were actively reading, and for the teaching team to have a sense of how they were engaging with the material.
- Doing this as a convenor-GTA team meant teaching objectives and realities of classroom dynamics were married up effectively.
- In some ways, the result of this collaboration created the most pedagogically comprehensive and thoughtful version of the module.

On the surface of things, therefore, and in particular on an interpersonal level, it was clear that 'teaching the teachers' had generated greater equality between ourselves (as GTAs and HPLs) and more senior members of staff. For Freire, to engage in dialogue is to "recognize the social and not merely the individualistic character of the process of knowing" (Freire, 1995: 379); it is an epistemological relationship. Indeed, the learning that took place was markedly reciprocal, the outcome being a series of online modules that were coherent in themselves as well as an overall program. At the same time, however, an overarching sense of privilege and gratitude to be carrying out the work also marked our experiences.

On the one hand, we were exposed to decision making procedures that ordinarily take place behind the scenes of a GTA's main concerns and responsibilities. We recalled one occasion where the task was to create a set of interactive questionnaires to asynchronously monitor students' understanding of core readings. What ensued was a back-

and-forth debate between the GTA, who was working from the perspective of the possibilities and limitations of the college's online learning platform, *Keats*, and the module convenor's very personal commitment to ensuring a balanced treatment of their module's overall learning and skill-based objectives. The result was a series of questionnaires that came in a broad format of question styles and drew from a range of tools far beyond the true/false or multiple-choice options that are typically used.

In another example, one GTA was tasked with producing 'audio guides' to accompany core readings for first-year students looking to develop their critical reading skills outside of synchronous sessions. While this pedagogical innovation was clearly the module convenor's, it was the GTA who was entrusted with highlighting key aspects of readings to best serve the module outcomes, objectives, and assessment patterns. Their voice had thus been incorporated into the learning through collective epistemological dialogue. On this personal level, through the one-on-one component to 'teaching the teachers', we both felt a renewed sense of being valued equally as both authorities on the matter of digital learning and co-creators of learning content, rather than simply assistants to the delivery of learning content.

More broadly, we were also called upon to suggest new learning content as a way of supporting the 'decolonising' strategy of the department to diversify reading lists and make them more inclusive in terms of authors' nationality, race, and gender. Although it was never explicitly addressed, we felt this decision was likely facilitated by our position as ECRs, our more intimate understanding of student needs as GTAs and seminar leaders, and, more specifically to us, our

widely acknowledged social justice and decolonial approaches to teaching. Beyond simply changing or diversifying reading lists, this also meant decolonising the means of delivering content itself. Our intention was to shape the student (user) experience and interface to avoid simply transferring existing hierarchies from face-to-face teaching to the online sphere, in line with earlier-cited literature. The process meant that we were entrusted with something quite personal: to translate a senior member of staff's educational creation for the online space. This required module convenors to compromise and let go of a number of aspects of their work to trust not only the GTAs, but the digital sphere itself.

While on this interpersonal level hierarchies were challenged, structurally they were not. It is not radical to state that GTAs are exploited in terms of their labour, and that those that take part in teaching as ECRs are often entering a self-sustaining cycle of disadvantage when it comes to their longer-term careers. While teaching for low wages is often sold as an important part of professional development, particularly during the final years of a PhD, dependency on such work as the main source of income takes away from opportunities to write postdoctoral grant applications and work on academic outputs - critical requisites for obtaining more permanent employment. Paradoxically, it is only in gaining permanent or full-time academic employment that researchers might be allowed to dedicate a portion of their hours to outputs and gain access to a wider pool of research grants. Those entering academia with unpaid student loans (most of whom are from historically disadvantaged backgrounds) and without financial security, like ourselves, thus often find themselves

reckoning with a rigid feedback cycle whereby permanent employment rests on unpaid labour and financial sacrifice.

We left 'teaching the teachers' with a little more experience under our belts, and an important example to relate during potential future interviews. Yet at the end of the program, we returned to precarious employment (as fixed-term contract lecturers) and a clearly defined position within the employment hierarchy. Just two years on, we wonder whether certain members of staff even remember that 'teaching the teachers' took place. In this context, 'teaching the teachers' did not alter or challenge hierarchies. Ultimately, the department only had a limited number of hours it could hire us for to do this work, and we had to make those hours sufficient, despite the feeling that our work was unfinished. We felt that we could have continued developing the course for ongoing and future training sessions; to be delivered and implemented on a more regular basis and to be incorporated into workload models.

These were also matters that clearly sat outside the hands of the department and the colleagues we had been working with. Yet it is worth observing that 'teaching the teachers' spurred no efforts to challenge or scrutinise the norms surrounding GTAs and HPLs' contractual position. Long-standing issues, such as GTA and HPLs' exclusion from department meetings, for example, would not be revisited in light of the increasingly important role we played as part of the broader team during this time. Permanent staff continued to act as gatekeepers and mediators for GTAs/HPLs to raise their concerns and grievances to the college. All of the above, of course, is the result of a deeply entrenched neoliberal system of employment within

academia, one that values the student primarily as a consumer, which in turn necessitates the cheap labour and exploitative employment of GTAs and HPLs.

Conclusion

To conclude on this short reflection, there is potential to extend the application of pedagogical theory beyond the experience of learners, particularly using Freirian perspectives. In particular, digital learning should be scrutinised to understand how it might challenge employment hierarchies for those positioned in the early stages of their career, in particular those who are subject to systemic hierarchical oppression and precarious employment. This reflection on our experiment 'teaching the teachers' has shown us how pedagogical theory, in particular Freirian concepts surrounding hierarchies, can be a helpful tool for rethinking one of the most pertinent issues in academia today. 'Teaching the teachers' challenged the ways we had formerly been valued as knowledge producers, as our input into the department's wider teaching framework and programs became critical to ensuring a smooth transition into digital learning. Yet while the urgent challenges created by the Covid-19 pandemic and national lockdown spurred opened certain doors for us, they did not challenge the deeply entrenched systemic oppression faced by many in academia today.

Through providing this reflection, we hope to encourage greater contemplation into the ways that Freirian concepts and frameworks can be applied beyond the learner-educator relationship to also scrutinise glaringly uneven hierarchical relationships between senior and junior staff members, and

between permanent and temporary employees. We believe that more empirical and theoretical research is needed to emphasise the complexity of these relations in particular at a time when, on the one hand, academia becomes an increasingly more precarious and exploitative environment to work in, while on the other hand, the 'decolonial' and digitally literate profile of ECRs in HPL or GTA positions becomes increasingly valuable to the commodification of academia. In a bid to recognise the value of such knowledge beyond personal thanks and offers of sporadic hourly paid opportunities, we hope that concrete recommendations can emerge as to how to incorporate digital pedagogical labour and its related skills into job specifications and contracts.

References

Bedenlier, S. et al., (2020) Facilitating student engagement through educational technology in higher education: A systematic review in the field of arts and humanities. Australasian Journal of Educational Technology, Volume 36, Issue 4

Blau, I., Shamir-Inbal, T., & Avdiel, O. (2020) How does the pedagogical design of a technology-enhanced collaborative academic course promote digital literacies, self-regulation, and perceived learning of students? The Internet and Higher Education, Volume 45, https://doi.org/10.1016/j.iheduc.2019.100722.

DeWaard, H. and Roberts, V. (2021) Revisioning the potential of Freire's principles of assessment: Influences on the art of assessment in open and online learning through blogging, *Distance Education*, Volume 42, Issue 2, 310-326, DOI: 10.1080/01587919.2021.1910494

Freire, P. (1968) *Pedagogy of the Oppressed*, Continuum International Publishing House, London, 2005

Freire, P. & Macedo, D. (1995) A Dialogue: Culture, Language, and Race. *Harvard Educational Review*, Volume 65, Issue 3.

Gariola, R. (2021) Lessons On-(the)-Line Blended Learning and Pedagogy of (the) Digitally Oppressed. *Studi e Ricerche Volume 26 Blended Learning and the Global South: Virtual Exchanges in Higher Education*, pp.21-38.

Greenhow, C. & Galvin, S. (2020) Teaching with social media: evidence-based strategies for making remote higher education less remote Information and Learning Sciences Volume 121, Issue 7/8, pp. 513-524

Hanretty, C. (2021). Career trajectories in UK departments of politics and international relations. A report for the British International Studies Association and the Political Studies Association. https://www.psa.ac.uk/sites/default/files/PSA_BISA%20Report.pdf [site last accessed 01/02/2022]

Mehta, R., & Aguilera, E. (2020). A critical approach to humanizing pedagogies in online teaching and learning. *The International Journal of Information and Learning Technology*, Volume 37, Issue 3, pp.109–120. https://doi.org/10.1108/IJILT-10-2019-0099

Montelongo, R., & Eaton, P. W. (2020). Online learning for social justice and inclusion: The role of technological tools in graduate student learning. *The International Journal of Information and Learning Technology,* Volume 37, Issue 1/2, pp.33–45. https://doi.org/10.1108/IJILT-11-2018-0135

Regmi, K., & Jones, L. (2020) A systematic review of the factors – enablers and barriers – affecting e-learning in health sciences education. BMC Med Educ 20, Volume 91. https://doi.org/10.1186/s12909-020-02007-6

Schön, D.A. (1983) *The Reflective Practitioner: How Professionals Think in Action.* New York: Basic Books

Sousa, A.N. (2021) Dialogue in Online Learning Spaces: How Transitioning to Online Learning During a Pandemic Impacts Classroom Dialogue and Inclusivity. *Journal of Teaching and Learning with Technology,* Volume 10, Special Issue, pp. 229-237. doi: 10.14434/jotlt.v9i2.31383

UCU Report (2019) Counting the costs of casualisation in higher education. Key findings of a survey conducted by the University and College Union, June 2019 https://www.ucu.org.uk/media/10336/Counting-the-costs-of-casualisation-in-higher-education-Jun-19/pdf/ucu_casualisation_in_HE_survey_report_Jun19.pdf [site last accessed 01/02/2022]

Wilkinson, C. (2020) Imposter syndrome and the accidental academic: an autoethnographic account, International Journal for Academic Development, Volume 25, Issue 4, pp.363-374, DOI: 10.1080/1360144X.2020.1762087

Exploring Graduate Teaching Assistants in the Virtual Space During COVID-19 Using the Cultural Historical Activity Theory Perspective

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Abstract

Graduate teaching assistants[10] (GTAs) play an indispensable role in higher education, in particular in undergraduate courses. In higher education, GTAs take on two identities simultaneously: firstly as postgraduate students and the secondly as lecturers (Muzaka, 2009). A literature review showed that the roles and responsibilities of GTAs might not be clearly defined, resulting in role ambiguity, which may be compounded by the current COVID-19 pandemic (Youde, 2020; Gardner & Parrish, 2019; Benjamin, 2020). In this paper, the authors explore the roles, responsibilities, and

[10] Graduate Teaching Assistants (GTAs) are postgraduate research students who support academic and faculty staff members with their teaching responsibility.

challenges of GTAs at a University of Technology during the COVID-19 pandemic. This qualitative case study collected data using interviews conducted with ten GTAs, who provided support to first-year engineering, mathematics, and physics lecturers and students. Our data analysis confirmed the adaptation of the GTAs' role and the challenges faced during the COVID-19 pandemic, which presented many benefits and contradictions. The major findings of this study revealed that digital tools such as technology for example writing devices, Learning Management System (LMS) Blackboard, and WebAssign by publisher Cengage[11] play a vital role in students' support and performance. Despite the use and some challenges with digital tools, our participant GTAs expressed many contradictions (tensions) about their engagement with students and lecturers, and adaptations to the COVID-19 pandemic context.

Keywords: Graduate teaching assistants, Online teaching and learning, Online Pedagogy, Cultural Historical Activity Theory, Higher Education, COVID-19, Student support

[11] WebAssign is an online education platform built by educators that provides affordable tools to empower confident students in a virtual learning environment.

Introduction

Within the milieu of massification and casualisation of higher education, student support is provided in different formats and varies from one institution to another. Its diversity is multi-layered, and so a convenient starting point would be to distinguish between the categories of students that GTAs support (Wald and Harland, 2020; Lowman & Mathie, 1993). In many institutions, students who are contracted to support students perform similar teaching roles as lecturers, and some teaching assistants have notably more subject knowledge and experience than others. Furthermore, different countries and institutions use different terminology to refer to teaching assisting students, namely tutors, teaching assistants (TAs), student teaching assistants (STAs), undergraduate teaching assistants (UTAs), graduate teaching assistants (GTAs), etc. These designations are not treated the same and do not always have the same roles, responsibilities, and expectations. In this study, the authors will use the term GTA because all GTAs for this study were postgraduate students (see the definition of GTAs in the footnote).There is merit in differentiating between UTAs and GTAs when discussing student support since, for instance, a senior doctoral student is likely to have much more subject knowledge than an undergraduate student (Wald and Harland, 2020), as undergraduate teaching assistants are likely to have limited subject and pedagogical knowledge which are essential for effective teaching (Major and Palmer, 2006).

Literature shows that many lecturers using teaching assistants are taking the roles and responsibilities of teaching assistants for granted because their expertise is not appreciated, and they are not used effectively (Soudien, 2020). However, the outbreak of the COVID-19 pandemic highlighted the importance of the support of teaching assistants. The pandemic forced tertiary institutions in South Africa and globally to transfer teaching, learning, and assessment to online environments to meet the learning objectives. The rapid move to online environments under emergency conditions brought about unique challenges for GTAs (Sayed and Singh, 2020). Therefore, it becomes necessary to explicitly define teaching assistants' roles and responsibilities in virtual learning environments to provide effective support to students and lecturers (Soudien, 2020). This study explores the participants' re-imagined roles and responsibilities in the changed teaching, learning, and assessment environments. During the COVID-19 pandemic, GTAs contributed more than ever to online teaching although their roles, responsibilities, and challenges are yet to be defined, especially in a virtual environment.

In this paper, we examined GTA's roles, responsibilities, and challenges during the COVID-19 pandemic at a University of Technology (UoT) through the theoretical lens of Cultural-Historical Activity Theory (CHAT). In doing so we drew on relevant literature and analysed ten interviews using the qualitative analytic software ATLAS.ti.

Literature review

Globally higher education institutions increasingly experience significant shifts to online pedagogies and the necessity to adapt to the prevailing economic and socio-cultural conditions (Youde, 2020). Factors influencing the shift are the Fourth Industrial Revolution, the COVID-19 pandemic, and the demand for equitable access and greater student support for student success (Soudien, 2020). The challenge of many institutions is to keep up with and maintain the quality of teaching, learning, and assessment considering the current institutional challenges (Daniel, 2020) of limited resources for all first-year students. In addition to the above, Hénard and Roseveare (2012) argue that within the current educational climate, universities have the responsibility to prepare graduates who have the required digital skills, knowledge, values, and attributes to achieve success in the world of work.

Meadows et al. (2015) assert that teaching assistants for undergraduate students made an important contribution to higher education through their work as assessors, tutorial leaders, and laboratory demonstrators, among other responsibilities. They posited that teaching assistants may be considered academics of the future, as they are inducted into the academy through various teaching, learning, and assessment activities expected of them. Cupido (2017) support this idea stating that students who explore their discipline in postgraduate studies often begin to perceive the opportunity of a career in higher education, having acquired

specialist knowledge and been employed as a teaching assistant. The fact that teaching assistants are teaching part-time, whilst also engaging in other academic activities such as research and administration requires them to "navigate a complex environment while learning to teach, balancing teaching with their research responsibilities as they study their discipline" (Dotger, 2011: 158). The role requires them to act as a link between lecturers and students while orientating themselves to the implicit rules and expectations associated with their context (Daniel, 2020). However, noticed by Greer (2014), another challenge of teaching large class groups and the diversity of students' academic and social backgrounds has necessitated student support beyond the classroom.

The major roles and responsibilities of the GTA are to assist academic staff with their administration, presentation of lectures, conducting tutorials and practical work, setting up, and the use of educational technology (Lueddeke, 1997; Wald and Harland, 2020). In addition, they often provide individual support to students during consultation sessions to create a safe, non-threatening space for less confident students (Cupido, 2017). Thus, the GTAs ease the academic burden of lecturers allowing for a targeted approach for students-at-risk[12] or who are failing. These students can be identified by the lecturer using learning analytics of the

[12] An at-risk student describes a student or group of students who are likely to fail or drop out of their studying program.

Learning Management System (LMS) at the beginning of and during the semester. Additionally, these students showed less preparedness and readiness academically in the first year at university due to various reasons.

Literature on GTAs in South African higher education institutions is sparse. However, globally GTAs have more explicitly defined roles emphasising teaching and research responsibilities. The literature in South Africa devotes much attention to those who support undergraduate students, whereas the comparatively newer and arguably more problematic phenomenon of postgraduate teaching assistants (GTAs) is far less explored (Wald & Harland, 2020). Acknowledging the complexity of the teaching assistant landscape, it becomes important to call for more research into the phenomenon of GTAs and for more and better training and support. To address this gap this study explores the value of GTAs in higher education during the COVID-19 pandemic by using the Cultural-Historical Activity Theory (CHAT).

Theoretical framework

Cultural-Historical Activity Theory (CHAT) was originally proposed by the Russian socio-cognitive theorists Leont'ev (1974, 1981) and Vygotsky (1978), and further developed by Engeström (1987, 1999, and 2001), as a guiding analytical framework. Engestrom (1987) developed CHAT into a social theory focusing on associated social activities. CHAT has

evolved over time and can be organised in three main generations. The first generation concentrates on individual activity and identifies three elements of the activity system (triangle) namely: (1) the subject, (2) the object, and (3) the instrument/mediating tool (Vygotsky, 1978). The second generation of activity theory focuses on a collective, group activity and adds additional elements to the activity system (triangle): rules, community, and division of labour (Leont'ev, 1974, 1981). The third generation of activity theory combines several interactive activities to explore multifaceted social activities (Engerstrom, 1987). In this study, we adopt the second-generation activity theory aiming to understand the roles of GTAs in online pedagogical practices in terms of responsibilities, challenges, contradictions, and conflicts during the COVID-19 pandemic.

CHAT provides a useful framework to analyse the GTAs' responses, highlighting the relationship between the activities of the subjects, objects, tools, mediation, and the context of the activity system (Engeström, 1999). The first principle of CHAT is that the object drives the activity (Engeström, 2001). The object is what the subjects understand as the purpose or intention of the activity - that which "propels them forward to take action" (Engeström 2018: 48). Figure 1 illustrates the activity system, in which the objects are the effective online pedagogy of GTAs, authentic learning, and acquisition of engineering concepts by students. The participants in this educational activity system are the ten GTAs (*subject*), whose purpose (*object*) is

online pedagogy and assisting students (Roth, 2004). Therefore, the subjects are the GTAs who played different roles in this activity system to achieve the common goal of online pedagogy and support for students, where the specific *outcome* of this system is academic success.

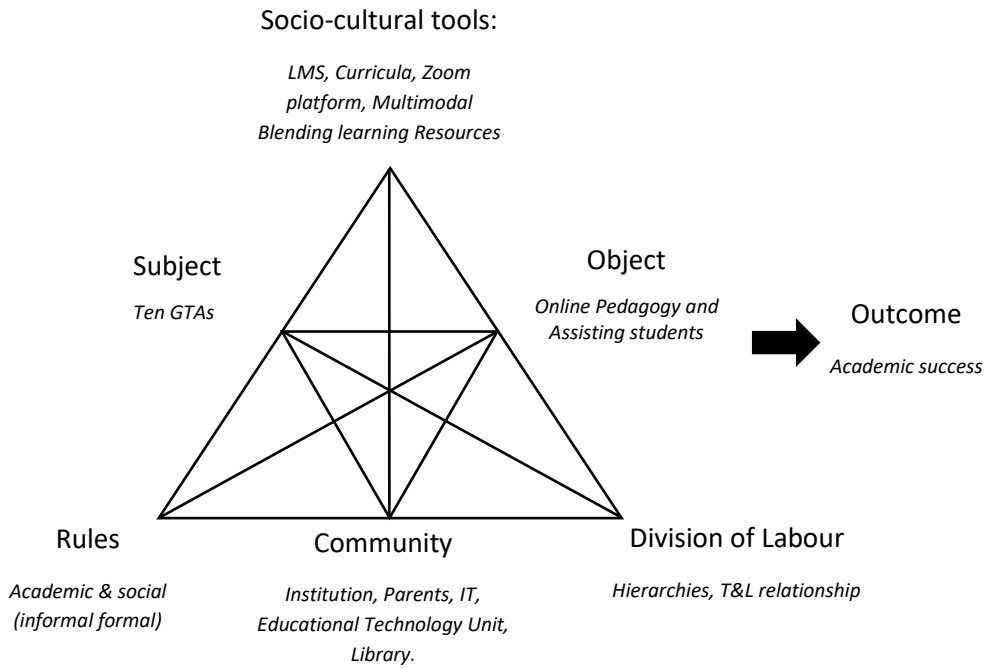

Fig. 1: GTA's activity system (adapted from Engeström 1999)

Within this system, the online learning resources, *socio-cultural tools* (e.g., institutions, discourses), and cultural mediational tools such as curricula, facilities, equipment, internet-based and library-based resources, and the learning management system (LMS) are directed at the top of the triangle (activity system). The GTAs form part of a much broader system - the university that is embedded in an institutional culture that has *rules* and hierarchies of decision-making and *divisions of labour*. It is important that the correct tools and resources are used with appropriate and corresponding rules and divisions of labour to guide the activity system, e.g., which tasks are appropriate for GTAs, and which are more appropriate for students in achieving the objectives. The *community* of an activity system is those who are affected by the systems (e.g., lecturers and professional bodies) but are not directly involved in the work of achieving the object (Uden, 2007). The community can also be beneficiaries of the activity, and stakeholders in the activity. In the case of this study, important community participants include the university and the information technology (IT) department.

Practices and conventions in education have "deep roots" (Sannino & Engeström, 2017: 24) and are slow to change to accommodate new objects, subjects, tools, rules, communities, and divisions of labour (Edwards, 2008). The COVID-19 pandemic forced the education system to change and accommodate online pedagogical approaches. However, CHAT cautions that the introduction of new tools, such as the

online conferencing platforms, e-textbooks, etc. could cause disruptions (contradictions) in the system, but such disruptions are not necessarily negative because activity systems are not static. Contradictions reveal unique opportunities for creative innovations for new ways of structuring and enacting the activity (Yakubu and Dasuki, 2021). Lessons learnt from the disruptions caused by the pandemic include new ways of teaching, delivering content, and facilitating learning that teachers can implement in their 'normal' practice.

Several scholars have used CHAT to examine technology for online teaching and learning (Uden, 2007; Hardman, 2021; Batiibwe, 2019). Selecting CHAT as a theoretical framework is ideally suited to explain phenomena of technology as tools for mediation in teaching and learning processes (Uden, 2007). Therefore, CHAT could be an appropriate theoretical lens to analyse the teaching and learning processes, and GTAs' roles in virtual spaces. Furthermore, Hardman (2021) suggests that the cultural-historical model as a pedagogical model is capable of enabling teaching online rather than merely just technology. In another study, Batiibwe (2019) reported that CHAT provides an understanding of how technology can mediate teaching for transformational learning. These studies and other subsequent studies helped to establish activity theory as a key theoretical approach to human and technology interaction.

In the next section, we discuss the methodology and method and will present how the theoretical elements of CHAT were included in collecting data for this study.

Methodology

This explorative case study approach collected data through semi-structured interviews with ten graduate teaching assistants (GTAs) about their roles and responsibilities using fifteen open-ended questions based on the different elements of CHAT (Yin, 1981). The wording and sequence were tailored to each individual interviewee using prompts and probes (Cohen, Manion and Morrison, 2017: 511). We selected an interview method to get the GTAs' stories and their experiences as well as provide an opportunity for them to reflect on what and how COVID-19 changed the teaching process (Seidman, 1991). According to Vygotsky:

Every word that people use in telling their stories is a microcosm of their consciousness. As such, individuals' consciousness gives access to the most complicated social and educational issues because social and educational issues are abstractions based on the concrete experience of people. (1987: 236-237)

The interview questions are reflected in Table 1.

Table 1: Theoretically determining questions for interviews

Activity element based on CHAT	**Interview questions**	**Code name**
Subject	Q1: Please tell me about your qualification and teaching experience.	Sub
Object	Q2: What do you think the purpose of this interview is? Q3: What do you think the main purpose/objective of your duties as a GTA is? Q4: Please explain why you like your role as GTA? Q5: In your understanding what is the difference between the TA, tutor, and GTA in terms of their roles, respectively? Q6: Has your purpose and role/responsibility as GTA changed	Obj

	from the pre-COVID and during the COVID-19 pandemic?	
Tool/Mediational means/cultural tools	Q7: How do you draw on the following resources in order to do your work i.e., knowledge, skills, artifacts, people, etc.? Q8: What tools do you use when you engage with students and lecturers? Q9: Do you have access to all the resources that you need to perform your duties?	MM

Community	Q10: Who are the other staff working with you or supporting you in performing your duties? Q11: Did you notice any changes in terms of role players with time i.e., pre-COVID-19 and during the COVID-19?	Com
Division of Labour	Q12: What roles do you play as GTA? Q13: In your opinion where should a GTA fit in the teaching-learning process?	DoL
Rules	Q14: What rules and responsibilities should you adhere to e.g., policies, timesheets, safety rules, lines of authority, logs, etc.? Q15: What are the salient/ unsaid rules of your workplace?	Rls

The theoretical framework of CHAT is valuable for qualitative studies because it allows the investigation of issues related to

real-world complex learning environments (Sannino & Engerström, 2017). One of the many significant values of having a clearly identified theoretical framework for the study is the ability to use this material to support and build the study design. We represent the elements of the teaching and learning activity system used in this study in Table 2. In this table, CHAT permeates everything that the authors did for data collection and analysis.

Table 2: Main CHAT elements and the online teaching and learning activity system

Activity element	**Description**	**Online teaching and learning**
Subject (Participants)	Participants for this study are actors or agents who accomplish the goal or object of the activity by utilising available tools and mediation means	Ten GTAs
Social-cultural Tools/ mediation means	The tools in this study are the application	Blackboard LMS, Curricular for remote learning, Zoom, and multimodal

		blended resources
Object	The main purpose is an activity that can be created or exists.	Online pedagogy and acquisition of knowledge during COVID-19
Rules	The rules, expectations, and as well formal and informal regulations influence the activity system.	Academic and social (formal and informal) rules
Community	Community includes the active and passive participants in the activity where they share the same objective of the activity.	Institutional, lecturers, IT, Educational Technology Unit, Professional body

Division of Labour (Roles)	Roles, responsibilities, and designated tasks assigned to the subject (participants)	Hierarchies TL relationship
Outcomes	The outcomes of the activity are achieving the goal of the whole activity where the object transformed into an outcome through intervention and of the new tools	Academic success

Participants

All the GTAs are mathematics and science postgraduate students and one of them is a postdoctoral student. The participants in this study are referred to as the subject of the activity system who are actors or agents aiming to accomplish the goal or object of the activity by utilising available tools and mediation means. More information about participants is presented in Table 3.

Table 3: Participants' information

Pseudonyms	**Gender**	**Qualification is currently studying**	**Teaching Subject**
GTA 1: Norman	Male	PhD	Mathematics
GTA 2: Andrew	Male	PhD	Mathematics
GTA 3: Collin	Male	Postdoc	Mathematics
GTA 4: Steve	Male	PhD	Mathematics
GTA 5: Osman	Male	PhD	Mathematics
GTA 6: Mohamad	Male	PhD	Physics
GTA 7: Ali	Male	PhD	Physics
GTA 8: Jack	Male	PhD	Mathematics
GTA 9: Victoria	Female	PhD	Mathematics
GTA 10: Thabo	Male	PhD	Physics

The authors acknowledged some of the limitations of this study regarding participants, for example, sample size and gender imbalance in the sample.

Data analysis

The data were mainly analysed using the qualitative analytic software ATLAS.ti which belongs to the genre of CAQDAS[13] (Computer-Assisted Qualitative Data Analysis) programs (Fielding, Lee and Lee, 1998). ATLAS.ti does not actually analyse data; it is a tool for supporting the process of qualitative data analysis (Friese, 2019). During the coding, the researchers (two authors of this study) created 408 quotations for the whole project (interviews excerpts and articles of this study). Codes were based on the identified themes in terms of the elements of CHAT. We used 18 codes initially across the three main groups - (1) Interviews, (2) theoretical framework (CHAT), and (3) literature review. After reviewing and cleaning up fifteen (15) codes emerged. Using deductive and inductive analysis, the transcripts of the interviews were analysed using ATLAS.ti. The deductive and inductive approaches to coding were done because CHAT played a good role in a conceptional framework that had concepts from the activity system (figure 1).

[13] The acronym CAQDAS was developed by the directors of the CAQDAS networking project at the University of Surrey, Guildford, UK (www.surrey.ac.uk/computer-assisted-qualitative-data-analysis).

With the inductive research approach, we interviewed the ten GTAs on their roles, responsibilities, and challenges during the COVID-19 pandemic, without having any theory in mind (Saldana, 2021). This process is also referred to as a "bottom-up" approach. We reviewed the GTAs responses and categorised them according to themes and codes for analysis. The emerging themes and patterns led to developing general conclusions that we found most appropriate to address the research topic. We then used the deductive research approach using CHAT as a specific theoretical approach to answering the research questions. This deductive process works from general to specific observations and is often referred to as a "top-down" approach (Saldana, 2021). Before we moved all transcripts to ATLAS.ti web for analysis we created a project and provided a short description for the themes and codes as reflected in Table 1 above.

Ethical considerations

All aspects of this planned research were scrutinised, including processes for informed consent, data management, and confidentiality. Additionally, the researchers maintained privacy, anonymity, and non-traceability in this study. During recruitment for this study, the participants underwent an informed written consent process, and pseudonyms are used to protect their confidentiality. The participants had the right to withdraw at any stage if they felt uncomfortable in this

study. The study was approved by the research ethics committee of the university (FREC: 0307/2021).

Results and discussions

Analysis of code distribution

The analysis of the interview transcripts in figure 2 revealed that the tool/ mediation means (73 quotations), changes due to COVID-19 (58 quotations), experience (49 quotations), and contradictions (44 quotations) constituted the most quotations shared by the GTAs. This may be attributed to the fact that teaching, learning, and assessment processes moved to online environments forcing the GTAs to improvise their mediation means during the COVID-19 pandemic. The quotations in the different themes overlap and many results show contradictions (code). These contradictions include challenges in adapting to online pedagogies, revealing several contradictions in the online teaching and learning activity system. One such contradiction is expressed by Collin, "I think I can do [offer] more to students, my skills are being underutilised because I perform mostly administrative duties". From Collin's quote, the authors noticed that Collin felt he can contribute much more but unfortunately, his skills and experiences were not utilised enough. Another contradiction was also expressed in Steve's comment, "It takes me more time to do a session online than face-to-face because of the technical problems that I experienced".

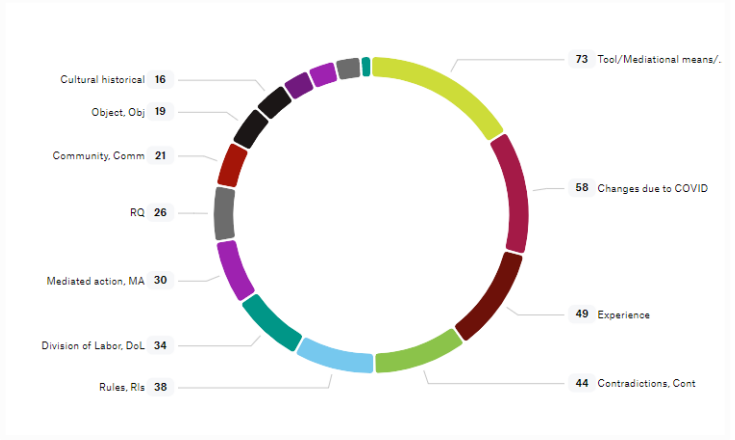

Fig. 2: Code distribution (doughnut chart uploaded from ATLAS.ti Web)

Figure 2 also shows cultural-historical (16 quotations), object (19 quotations), and community (21 quotations) represented the least quotations shared by the GTAs. This observation may be attributed to the fact that most of the GTAs are from foreign countries, however, they seem to be sensitive to the local students' socio-cultural backgrounds. They also mentioned that they received relatively good support from their community.

In this study, the nature of the community reflected a professional space which is an important aspect of the socialisation of students. Within the community, the division of labour is such that the GTAs are seen as guides who strategically assist students in a gentle way, allowing them to be part of a safe environment where it is possible to take risks. The community included the active participants (GTAs

and students) and passive participants (parents and IT support) in the activity where they share the same objective of the activity, namely academic success. Five participants discussed 'community' stating that this was important to be part of the academic community to perform their role. For example, Victoria said, "My colleagues, like fellow GTAs and the tutors that I work with, are helping each other, especially if there is something I don't understand". In Victoria's comment, it seems evident that being part of the academic community is beneficial to her.

Cultural-historical aspects and background of GTAs

Learning from a cultural-historical point of view demonstrates that human behaviour varies between cultural contexts and will change with the passage of time - this is defined within CHAT as historicity (Hardman, 2021). The GTA acknowledged the temporal nature of teaching and learning: the influences of changing professional practices related clearly to how they felt it best to teach a curriculum, and how best to maximise the benefits of the use of online resources and mediational means. Most of the GTAs were born in other African countries and from their transcripts, they mentioned that the cultural-historical aspect played a key role in the teaching and learning process. Norman's comment below is based on the fact that he is from another African country, Nigeria, and he had to familiarise himself with the local cultural-historical context in order to support the students.

Norman: *… we also realised that we are dealing with different categories of students with different social*

backgrounds, different ethnicity, different races …. So, even if the COVID-19 is over, we have to go face to face this thing is very important, we have to recognise the socio-cultural background of individual students. I find myself in a different environment. Now, I know that cultural backgrounds are not the same.

Culture points to the premise that humans are enculturated, and that everything people do is shaped by their cultural values and resources (Foot, 2014). The term historicity used together with culture indicates that since cultures are grounded in histories and evolve over time, analyses of what people do at any point in time must be viewed in light of the historical trajectories in which their actions take place (Foot, 2014).

From another participant of this study, the authors saw a clear relation to respect and adapting to different cultures when the GTA is an outsider in this context. In Osman's comment below, he shows appreciation, compassion, and empathy for the local students' socio-cultural diversity and disparity in terms of advantaged and disadvantaged students. He is willing to change and adapt to a new environment that is new to him.

Osman: *You have to be patient because you have students who are coming from different backgrounds. … you have to be flexible… So, different students assimilate knowledge differently, for some, today they grab easily for others, it takes time for them to grab…*

The responses of Norman and Osman reflect the general approach of the participants when engaging with students and taking into consideration the cultural-historical element of CHAT in their teaching. Many scholars also noticed that large classrooms and the diversity of students' academic and social backgrounds have necessitated student support beyond the classroom. Strydom, Basson, and Mentz (2012), when exploring student engagement, stated that improving the quality of teaching and learning in underprivileged learning institutions is a national imperative for higher education institutions in South Africa (Cupido, 2017).

To conclude, the limited knowledge of cultural-historical aspects and the backgrounds of students might negatively impact the GTAs practice in supporting and understanding the diverse background of the students.

Relationships of GTAs in the activity system

From the interviews, we found that in the activity system the GTAs can be considered a part of the mediational means/ tools element and thereby have a direct relationship to the lecturer and students that are also part of the object. The GTAs help lecturers and students in the teaching and learning process, as shown in Figure 3.

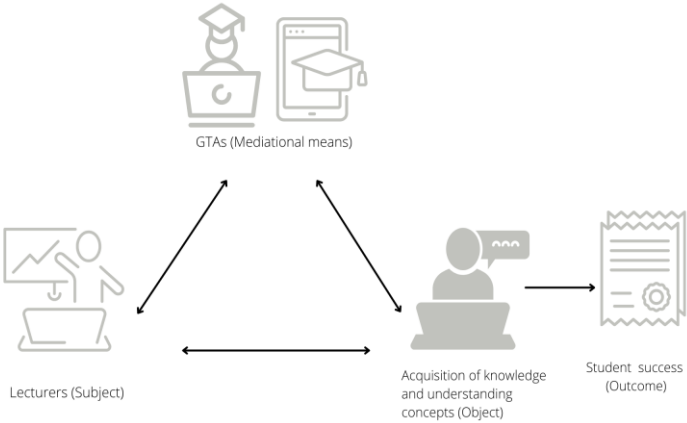

Fig. 3: Relationships of GTA's role in terms of CHAT

The GTAs have complex relationships in their roles and responsibilities in supporting lecturers and students. Therefore, to adapt to the shift to online environments they changed their practices accordingly. Victoria mentioned, "The role of the GTAs is primarily to be a middleman between the lecturer and the students, and we need to provide a bridge between what students don't know and what they are supposed to know". Here Victoria referred to Vygotsky's (1986) Zone of Proximal Development (ZPD) which states that mediation happens in a unique social space that opens up in interaction (Hardman & Amory, 2014). Many of the GTAs mentioned the two organisational roles in their responses- lecturer-GTA and student-GTA. Ali commented, "I think the lecturers should have more meetings with us so that we know exactly what and how to engage with the students". The response from Ali indicated that in the online

space GTAs need more training and the lecturers' perspective on how the GTA can improve engagement in the online space.

Conclusion

The GTA's roles and responsibilities during COVID-19 presented some form of taking contentions and contradictions. Firstly, because the role and responsibilities in the online teaching, learning, and assessment were not clearly communicated to them during training, this resulted in role ambiguity. Secondly, during the semester, GTAs were assigned to different types of tasks (as the need arose) that each required a specific level of time and effort (role conflict). Finally, the GTAs had no means of renegotiating the GTA terms once they were appointed (role-taking).

The similarities and differences in the roles and responsibilities of the different categories of student assistance should be distinguished. The GTAs, TAs and tutors, should be differentiated according to their qualifications and experience along the administrative-teaching-research continuum (Smith and Smith, 2012), since most of the GTAs mentioned that they are mostly busy with non-teaching tasks and technology, creating role strain. To solve these role conflicts, GTAs should get more IT support and teaching opportunities, helping the lecturer and students in the education process and preparing GTAs for the future as would-be academics. GTAs should have constant

communication with lecturers to discuss the progress of students with lecturers. However, lecturers are overloaded and do not always have time to meet with GTAs (Wald & Harland, 2020). To solve this problem, there is a need for regular meetings to discuss preparation and feedback. Second, the lecturers should be part of the GTA training sessions. Regular GTA-lecturer interaction can assist in preparing GTAs for future academics.

This study did not only aim to argue for changing the roles of GTAs due to the COVID-19 pandemic but also demonstrated how CHAT can be a useful reflective framework to analyse and understand the complexity of roles and pedagogical practices of GTAs within the COVID-19 context. It recognises that those practices may be specific to a particular institutional context rather than being accepted as representative of a wider view. However, it demonstrates how CHAT can be used as a thinking tool for pedagogy and how personal pedagogical stances influence student learning. CHAT also allows consideration of how to practise within a system that may be developed in the future to resolve contradictions.

Disclosure

The authors reported no conflicts of interest for this study.

References

Batiibwe, M.S.K. (2019). Using Cultural Historical Activity Theory to understand how emerging technologies can mediate teaching and learning in a mathematics classroom: a review of the literature. *RPTEL* 14, 12. https://doi.org/10.1186/s41039-019-0110-7

Benjamin, L. M. (2020). Adaptations to a face-to-face initial teacher education course 'forced' online due to the COVID-19 pandemic, J*ournal of Education for Teaching*, 46(4), pp. 609-611, DOI: 10.1080/02607476.2020.1755205

Cohen, L., Manion, L., & Morrison, K. (2017). *Research Methods in Education*. 8th ed. Routledge. https://doi.org/10.4324/9781315456539

Cupido, X. (2017). An evaluation of a Teaching Assistant programme at a University of Technology: A World Café approach. *Paradigms, 3*.

Daniel, S.J. (2020). Education and the COVID-19 pandemic. *Prospects* 49, pp.91–96. https://doi.org/10.1007/s11125-020-09464-3

Dotger, S. (2011). Exploring and developing graduate teaching assistants' pedagogies via lesson study. *Teaching in Higher Education,* 16 (2), pp. 157 –169.

Edwards, A. (2008). Activity theory and small-scale interventions in schools. *Journal of Educational Change*, 9(4), pp.375-378.

Engeström, Y. (1987). *Learning by Expanding: An Activity Theoretical Approach to Developmental Research.* Helsinki, Finland: Orienta-Konsultit. http://lchc.ucsd.edu/mca/Paper/Engestrom/Learning-by-Expanding.pdf

Engeström, Y. (1999). Activity theory and individual and social transformation. In Y.Engeström, R. Miettinen, & R.L. Punamaki (Eds.), *Perspectives on activity theory.* pp. 19-38. Cambridge University Press. https://doi.org/10.1017/cbo9780511812774.003

Engeström, Y. (2001). Expansive learning at work: Toward an activity theoretical reconceptualisation. *Journal of Education and Work*, 14(1), pp.133–156. https://doi.org/10.1080/13639080123238

Engeström, Y. (2018). Expansive learning: Towards an activity-theoretical reconceptualisation. In K. Illeris (Ed.), *Contemporary theories of learning: Learning theorists In their own words*. 2nd ed. pp.46–65. London: Routledge.

Fielding, N. G., Lee, N. F. R. M., & Lee, R. M. (1998). *Computer analysis and qualitative research*. Sage.

Foot, K. A., (2014). Cultural-Historical Activity Theory: Exploring a Theory to Inform Practice and Research, J*ournal of Human Behavior in the Social Environment*, 24(3), pp. 329-347, DOI: 10.1080/10911359.2013.831011

Friese, S. (2019). *Qualitative Data Analysis with ATLAS.ti.* 3rd ed. SAGE Publications, Ltd. (UK). https://bookshelf.vitalsource.com/books/9781526454980

Gardner, G. E., & Parrish, J. (2019). Biology graduate teaching assistants as novice educators: Are there similarities in teaching ability and practice beliefs between teaching assistants and K–12 teachers?, *Biochemistry and Molecular Biology Education,* 47(1), pp. 51-57.

Greer, A. (2014). Increasing Inclusivity in the Classroom. Vanderbilt University Center for Teaching. Retrieved [23 December 2021] from https://cft.vanderbilt.edu/guides-sub-pages/increasing-inclusivity-in-the-classroom/.

Hardman, J., and Amory, A. (2014). Introduction to cultural-historical activity theory and tool mediation. *In Activity Theory, Authentic Learning and Emerging Technologies* pp. 35-47. Routledge.

Hardman, J. (2021). Towards a pedagogical model for teaching through rather than merely with technology: a cultural historical approach. *South African Journal of Higher Education*, 35(4), pp. 104-115.

Hénard, F., & Roseveare, D. (2012). Fostering quality teaching in higher education: Policies and practices. *An IMHE Guide for Higher Education Institutions*, *1*(1), 7-11.

Leont'ev, A. N. (1974). The problem of activity in psychology. *Soviet Psychology*, 13(2), pp. 4–33. https://doi.org/10.2753/rpo1061-040513024

Leont'ev, A. N. (1981). *Problems of the Development of the Mind*. Moscow, Progress.

Lowman, J. & Mathie, V.A. (1993). What should graduate teaching assistants know about teaching?, *Teaching of Psychology*, 20(2), pp.84-88.

Lueddeke, G.R. (1997). Training postgraduates for teaching: Considerations for programme planning and development, *Teaching in Higher Education*, 2(2), pp.141-151.

Major, C.H., & Palmer, B. (2006). Reshaping Teaching and Learning: The Transformation of Faculty Pedagogical Content Knowledge. *Higher Education*, 51, 619-647.

Meadows, K. N., Olsen, K. C., Dimitrov, N. and D. L. Dawson. (2015). Evaluating the differential impact of Teaching Assistant training programs on international graduate student teaching. *The Canadian Journal of Higher Education,* 45 (3), pp. 34

Muzaka, V. (2009). "The Niche of Graduate Teaching Assistants (Gtas): Perceptions and Reflections." *Teaching in Higher Education,* 14 (1), pp. 1–12. doi:10.1080/13562510802602400.

Roth, W. M. (2004). Introduction: Activity theory and education: An introduction. *Mind, Culture, and Activity*, 11(1), pp.1–8. https://doi.org/10.1207/s15327884mca1101_1

Saldana, J. (2021). *The Coding Manual for Qualitative Researchers*. 4th ed. SAGE Publications, Ltd. (UK). https://bookshelf.vitalsource.com/books/9781529755985

Sannino, A., & Engeström, Y. (2017). Co-generation of societally impactful knowledge in change laboratories. *Management Learning*, 48(1), pp. 80–96.

Sayed, Y., & Singh, M. (2020). Evidence and education policy making in South Africa during Covid-19: Promises, researchers and policymakers in an age of unpredictability. *Southern African Review of Education*, 26(1), pp. 20–39.

Seidman, I. E. (1991). *Interviewing as Qualitative Research*. New York, NY: Teachers College Press.

Smith, K. & Smith, C. (2012). Non-Career Teachers in the Design Studio: Economics, Pedagogy and Teacher Development, *International Journal of Art and Design Education*, 31(1), pp.90-104.

Soudien, C. (2020). Systemic shock: How Covid-19 exposes our learning challenges in education. *Southern African Review of Education*, 26(1), pp. 6–19.

Strydom, J. F., Basson, N. & Mentz, M. (2012). *Enhancing the quality of teaching and learning: Using student engagement data to establish a culture of evidence*. Pretoria, South Africa: Council on Higher Education.

Uden, L. (2007). Activity theory for designing mobile learning. *International Journal of Mobile Learning and Organisation*, 1(1), pp.81–102. https://doi.org/10.1504/IJMLO.2007.011190

Vygotsky, L. S. (1978). *Mind in Society: the Development of Higher Psychological Processes*. Cambridge, MA: Harvard University Press

Vygotsky, L. S. (1986). *Thought and language*. Translated and edited by E. Hanfmann and G. Vakar. Cambridge, MA: MIT Press.

Vygotsky, L. S. (1987). *The collected works of L. S. Vygotsky*, Vol 1: Problems of general psychology, ed. R. W. Rieber and A. S. Carton. Translated by N. Minick. New York: Plenum Press.

Wald, N., & Harland, T. (2020). Rethinking the teaching roles and assessment responsibilities of student teaching assistants. *Journal of Further and Higher Education*, *44*(1), 43-53.

Yakubu, N., & Dasuki, S. (2021). Emergency online teaching and learning in a Nigerian private university: an activity theory perspective. In *UKAIS 2021 Annual Conference*. UK Academy for Information Systems.

Yin, R. K. (1981). The Case Study as a Serious Research Strategy. *Knowledge* 3(1) pp. 97–114. doi:10.1177/107554708100300106.

Youde, A. (2020). *The Emotionally Intelligent Online Tutor: Effective Tutoring in Blended and Distance Learning Environments*.1st ed. Routledge. https://doi-org.ezproxy.uct.ac.za/10.4324/9780429322389

IDEAS (Inspirations for Digital Engagement Activities) to support the teaching practice of early career academics.

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Abstract

The Covid-19 pandemic has provided both challenges to established patterns and also opportunities, such as for new collaborative approaches between different teams to support education within online or increasingly blended environments (Havemann & Roberts, 2021). This paper discusses one such collaboration which involved a group of UCL academic development and digital education staff who co-designed and developed a collection of open educational resources entitled Inspirations for Digital Engagement Activities or IDEAs (Walker et al, 2021).

The IDEAs are 'recipes' for activities which are designed to scaffold and support teaching in online or blended contexts, and perhaps particularly useful to those newer to teaching, such as postgraduate teaching assistants (PGTAs). The collection of IDEAs comprises a set of activities that can be used to enhance active learning (Prince, 2004), and to

encourage engagement and participation (Gourlay et al., 2021) in a flexible and playful way across disciplines. Each IDEA comes with a set of instructions about how to adapt it to different learning scenarios, planning time and relevant digital resources.

The IDEAs are disseminated via interactive workshops which introduce our dedicated blog (https://reflect.ucl.ac.uk/ideas/ideas/). The blog is organised in such a way that IDEAs can be browsed based on their pedagogical aims. The blog is also an open resource where we invite PGTAs to contribute their comments and examples of activities so to develop a community of 'early' practitioners beyond disciplinary environments. The use of resources such as IDEAs in professional development can support a new generation of educators by sharing and modelling good practice. At the same time through scenarios and activities in the workshop we problematise taken-for-granted assumptions about lack of participation and the nature of active engagement (Kuhn et al., 2021) taking a student-centred approach (Trinidad, 2020)

Introduction and Background

The onset of the Covid-19 pandemic initiated a rapid pivot online in order to facilitate learning and teaching continuity, initially via 'Emergency Remote Teaching' approaches which, in the main, sought to digitize and substitute familiar forms of classroom practice rather than redesign for online learning (Hodges et al 2020). However, in our experience, as weeks turned to months following the initial pivot, institutions such as UCL tended to focus efforts on enhancing provision of staff development, including technical and learning design support, in order to better support online education over an indefinite period. Trends towards greater digitalization within campus-based education were suddenly accelerated.

The pandemic context has provided both challenges to established patterns and opportunities for new practices, such as the emergence of unprecedented hours of live, synchronous online teaching. The latter included collaborative approaches between different teams and areas of expertise within universities to support teaching and learning within online or increasingly blended environments (Havemann & Roberts, 2021; Watermeyer, Crick & Knight, 2021). At UCL, as the pandemic response evolved from support for 'teaching continuity' to discussions of 'connected learning', a variety of projects were undertaken with the aim of building digital pedagogic capacity. The authors were members of a group drawn from the central Digital Education and Arena Centre for Research-Based Education teams, as well as Faculty Learning Technology Leads, who co-designed

and developed a collection of open educational resources entitled Inspirations for Digital Engagement Activities, or 'IDEAs' (Walker et al, 2021).

Against this backdrop, the role of postgraduate teaching assistants (PGTAs) has developed quickly over the past two academic years, as a high proportion of online, synchronous teaching was allocated to teaching assistants in the form of online tutorials, seminar groups and as supporting colleagues in large group teaching. The UCL Arena Centre, which provides central training and support for PGTAs in relation to their teaching and academic practice, noted an increase in more than 40% of PhD teaching assistants attending its non-compulsory training course Teaching Associate Programme (TAP)) in the academic year 2020-21.

As noted by Byrne et al. (2021), PGTAs are often asked to perform a task without being offered extensive preparation or support and this trend appeared to be exacerbated during the pandemic, as PGTAs were, at times, assumed to have expertise in the use of digital technologies. Whether in any individual case this assumption is valid, someone's facility with digital tools can be understood as necessary but not sufficient to provide them with expertise and confidence in digital pedagogy; but we have noted for experienced teaching staff, the challenges of using technology tended to be perceived as the main hurdle to overcome in moving online.

The Arena and Digital Education teams developed a range of specific resources accessible to teaching staff, including

PGTAs, to support the shift from face to face to online teaching, including asynchronous Moodle courses, templates, drop-in sessions and specific workshops in addition to the usual academic development provision, which was fully transferred online. Through the collection of formal and informal feedback that PGTAs shared through workshop activities with Arena and Digital Education at UCL, TAP and other seminars offered as part of our training provision, we succeeded to carry out an analysis of recurrent needs and areas for support development, which fed into the design of a new stand-alone resource that became known as IDEAs. The need for strategies to ensure students' engagement and participation in online sessions was reported as a key area of concern, as well as lack of variety of activities and general lack of confidence in relation to online teaching.

Our experience in developing the resource followed the same pattern as described by Varga-Atkins et al. (2021). As we designed the resource, we acted in response to students' needs following four prominent drivers for student-centred decision making: a) collecting and rapidly sharing student voice data, b) offering more choice in anticipation of different circumstances and access to technology c) giving a high priority to equalising access to technology and d) taking responsibility for students in difficult circumstances. In addition, we considered the particular dual/liminal position of PGTAs as both students and instructors. The positive response we received through formal and informal feedback across the number of activities and courses available for

PGTAs, and from the IDEAs workshop in particular, suggests a profound investment of the PGTAs in their development as teaching academics, which also results in an increased interest in accrediting schemes such as the AdvanceHE associate fellowship. We therefore found PGTAs highly concerned about the quality of their teaching practice and performance, in contrast with the findings of Compton and Tran (2017).

The IDEAS Resource

The IDEAs are designed to scaffold and support teaching, particularly for those newer to teaching in digital contexts, and therefore we suggest they can be particularly useful to PGTAs, although we hope, not limited to this group in appeal. The collection of IDEAs comprises a set of activities that can be used to enhance active learning (Prince, 2004), and to encourage engagement and participation (Gourlay et al., 2021) in a flexible and playful way across disciplines. Our IDEAs are disseminated via interactive workshops which introduce our dedicated blog, where the IDEAs as well as case studies from participants are collected and showcased.

The idea of using a blog arose from our discussions as we collectively developed the IDEAs collection. Initially we were focused on producing a slide deck, aka, the 'IDEA cards', which can also be accessed via the blog. The cards consist of a title and quick description slide for each activity or recipe, with a second slide going into greater detail about pedagogic

reasons for using the activity and steps and resources needed for implementation. For example, one card outlines how to scaffold peer-feedback activities in class, whilst another how to engage students with reflective portfolios. The set of PowerPoint slides can be downloaded and modified; tutors might choose to copy an activity into their own presentation and modify it to give the relevant details to suit their session, and then show or share this version with students.

As we thought about these potential strengths of providing the resource in the slides format, we also noted that a slide deck tends to be presented and 'consumed' in a linear fashion, and that it would also be interesting to be able to search or browse the activities. Consequently, we also created a site on Reflect, UCL's educational blogging platform, in order to display each activity as a post. Posts are each categorised with pedagogic tags indicating what kind of academic skills development the activity supports, for example, assessment literacy, reflection, or collaboration. In addition to pedagogic purposes, all recipes also became members of a 'supergroup' which differentiated whether they are suitable for short-term or long-term usage. In this way the resource represents an attempt to work at the granular level of activities which might take place once, several times, or evolve through the duration of a module, and thereby to introduce learning design concepts and practices to teaching staff engaged emergency online teaching in a scaffolded and practical way. In introducing the IDEAs to PGTAs, we surmised that they may be less likely to

be empowered to embed longitudinal learning activities into module design, as they often reported to be asked to teach sessions that have been already planned by module leaders, so while we made them aware of the range of activities available, we focused our attention on those which the resource describes as 'quick, on-the-fly activities' which, for example, could be set up and conducted during a single session.

Reception and Usage of IDEAs

IDEAs was originally presented and promoted to UCL staff and the wider public via a number of bite-size workshops and conference presentations in the spring of 2021. These provided an excellent opportunity to raise interest in the resource and collect initial feedback on its reception and usage. Following the UCL education conference, we were asked to deliver tailor-made workshops for department and library staff. From the summer of 2021, IDEAs was embedded as a key resource as part of the TAP course. The course aims to introduce PGTAs to learning and teaching at UCL; it is not compulsory and divided into 5 sessions, its practice oriented with plenty of opportunities to micro-teach and reflect on practice. As mentioned in the introduction, TAP student numbers increased substantially over the past two academic years. As well as embedding IDEAs in our current offer, we applied for funding from the doctoral school to carry out stand-alone workshops, as we felt that a focus on the resource, as well as practice time in the context of a

dedicated session, could benefit PGTAs in the process of familiarizing themselves with the resource and applying it to their teaching.

Since the beginning of the academic year 2021-22 we have run 4 workshops open to all PGTAs across different faculties. The workshops were attended by more than 20 participants per session and each session run for a total of 90 minutes. The structure of the session included a presentation of the resource through the engagement of 4 different IDEAs and time to use the resources in relation to a number of different teaching scenarios related to perceived lack of student participation. During and following each workshop we we collected feedback from participants, which demonstrates that the resource supports PGTAs to scaffold their teaching practice and plan their sessions. For example: 'I feel I have a clearer understanding of how to plan my sessions', 'Thanks, I will try to use these with my students next week'.

As part of the workshop, we asked participants to contribute to the IDEAs blog with examples of their practice and we have so far collected a number of case studies from UCL on student engagement, which are available on the IDEAs blog, and our call for new contributions is open and rolling for new participants. We believe that sharing practice is a key element of the project and that it can further enhance the resource by adding new 'recipes' to the existing ones and, at the same time, examples of practice can help PGTAs from different disciplinary backgrounds to see how the resources can be practically adapted to different scenarios. We aim to

develop a hub for PGTAs' IDEAs that can be a point of reference as a teaching toolkit for PGTAs across institutions and that can also serve as an opportunity to build confidence and expertise in relation to academic practice.

Development of PGTA-led cases of Practice

Following our sessions, several PGTAs contacted us for further support and to share and develop their ideas. We offered a number of drop-in times where we could discuss possible developments and get a better understanding of their teaching context. Formal and informal feedback we collected during and after the sessions, and presented above, offered a strong indication that the resources meet the needs of PGTAs in relation to the key aspect of their teaching, both face-to-face and online. The follow-up drop-in sessions were an opportunity to get to know some of the PGTAs better and tune in with their teaching practice and evolving teaching identity.

The PGTAs that engaged with the IDEAs workshops and resources articulated their usefulness in terms of their adaptability to their teaching and learning contexts. 'I see how they can be used for different purposes and how I can adjust them to my groups'. The resources offered participants an opportunity to share examples of teaching practice that resulted in professional identity building and a reflection on the importance of specific contextual aspects of what constitutes good teaching and rapport with students.

Also, the PGTAs who engaged with us elaborated on the importance of conceptualising IDEAs as a framework that needs adjusting depending on individual needs and circumstances. As we originally intended, the activities proposed in the blog have been treated as a starting point, rather than a ready-made 'solution', to scaffold and support session planning and students' independent learning. Our conversations with PGTAs outlined an implicit engagement with constructive alignment of content, activities and assessments (Biggs and Tang, 2011) and pedagogical approaches centred on students' needs (Varga-Atkins et al., 2021), as the PGTAs appeared articulate and convincing in their attempt to design sessions that could meet learning outcomes and preparation for future assessments in a timely and flexible manner that would be responsive to evolving needs and feedback.

Such reflections point in the direction of PGTAs identifying themselves strongly with their teaching identity and investing consistently in developing their practice, which is also supported by the increase attendance to Arena core provision and interest in accreditation as the HEA Fellowship scheme. Notwithstanding the centrality of their research, the IDEAs project has highlighted a strong need for academic practice training and support focusing on PGTAs as a key part of their academic development. This preliminary finding appears to contradict Compton and Tran's (2017) research, and it suggests that the shift in workload and teaching

responsibilities accelerated by the pandemic might have had a profound impact on PGTA's identity building.

Next steps and Conclusions

IDEAS is a learning and teaching resource which aims to scaffold the design of activities to support learning skills across disciplines. Early feedback from PGTAs mentioned above supports the value and usefulness of the resource. Our next steps are to support PGTAs in sharing their practice on the blog through case studies and discussions. We have made the resource available to staff beyond UCL and hope to use it as a hub of teaching ideas and activities. We are also currently encouraging some of the PGTAs that engaged with us to use their case studies as a starting point for presentations in education conferences or wider distribution via specific platforms. Sharing their work with a wider public would have a positive effect on the process of identity building we discussed in this paper.

We aim to develop a hub for PGTAs' IDEAs that can be a point of reference as a teaching toolkit for PGTAs across institutions and that can also serve as an opportunity to build confidence and expertise in relation to academic practice.

We are also planning to use tracking tools and analytics to develop a better understanding of the engagement with the blog and the areas that appear to be accessed and used more frequently. Together with the feedback we collect through

the workshops, this will allow us to keep developing it further by responding to the users' needs.

Finally, we are embedding the use of IDEAs more broadly in our core teaching provision for PGTAs, for example by using it across a number of sessions in TAP and as a key supportive tool in the process of developing an application for associate fellowship of AdvanceHE.

References

Biggs, J., & Tang, C. (2011). Teaching for Quality Learning at University. Maidenhead, UK: Open University Press.

Byrne, V. L., Hogan, E., Dhingra, N., Anthony, M., & Gannon, C. (2021). An exploratory study of how novice instructors pivot to online assessments strategies. *Distance Education*, *42*(2), 184–199. https://doi.org/10.1080/01587919.2021.1911624

Compton, M. & Tran, D. (2017). Liminal space or in limbo? Post Graduate Researchers and their personal pie charts of identity. *Compass: Journal of Learning and Teaching*, DOI: https://doi.org/10.21100/compass.v10i3.620

Havemann, L. & Roberts, V. 2021. Pivoting Open? Pandemic Pedagogy and the Search for Openness in the Viral Learning Environment. *Journal of Interactive Media in Education*, 2021(1), article 27. DOI: https://doi.org/10.5334/jime.676

Gourlay, L., Campbell, K., Clark, L., Crisan, C., Katsapi, E., Riding, K. & Warwick, I. (2021) 'Engagement' Discourses and the Student Voice: Connectedness, Questioning and Inclusion in Post-Covid Digital Practices. *Journal of Interactive Media in Education*, 2021(1), article 15. DOI: http://doi.org/10.5334/jime.655

Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The Difference Between Emergency Remote Teaching and Online Learning. *EDUCAUSE Review*. Retrieved from https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning

Kuhn, C., Havemann, L., Koseoglu, S., & Bozkurt, A. (2021) Three lenses on lurking: making sense of digital silence. International Perspectives in Online Instruction. *Innovation in Higher Education Teaching and Learning,* 40, 83-93. DOI: 10.1108/S2055-364120210000040006

Prince, M. (2004) Does Active Learning Work? A Review of the Research. *Journal of Engineering Education.* 93, 23-32. DOI: 10.1002/j.2168-9830.2004.tb00809.x

Trinidad, J.E. (2020) Understanding student-centred learning in higher education: students' and teachers' perceptions, challenges, and cognitive gaps. *Journal of Further and Higher Education*, 44:8, 1013-1023, DOI: 10.1080/0309877X.2019.1636214

Varga-Atkins, T., Sharpe, R., Bennett, S., Alexander, S. & Littlejohn, A., 2021. The Choices that Connect Uncertainty and Sustainability: Student-Centred Agile Decision-Making Approaches Used by Universities in Australia and the UK during the COVID-19 Pandemic. Journal of Interactive Media in Education, 2021(1), p.16. DOI: http://doi.org/10.5334/jime.649

Walker, S., Ahern, S., Colaiacomo, S., Havemann, L., Mihai, A., Neumann, T., Shackleford-Cesare, K., Shaw, A., & Young, C. (2021) IDEAs – Inspirations for Digital Engagement Activities. Available at: https://reflect.ucl.ac.uk/ideas/

Watermeyer, R., Crick, T., & Knight, C. (2021). Digital disruption in the time of COVID-19: learning technologists' accounts of institutional barriers to online learning, teaching

and assessment in UK universities.
https://doi.org/10.1080/1360144X.2021.1990064

Experience Report: Challenges and Opportunities of Remote Labs for a Computer Science Department

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Abstract

In response to the COVID-19 pandemic, the authors – the Graduate Teaching Assistant (GTA) Working Group of the School of Computing Science at a Scottish University - were involved in implementing changes to the delivery of lectures and lab sessions to continue the provision of labs and tutorials online according to government regulations and guidance. Such a drastic overhaul presented a variety of

challenges when trying to preserve the student experience and satisfaction. Here, we discuss these challenges, as well as the benefits and positive developments of online teaching.

Our approach tackled the difficultly of online-only interaction by reducing the staff-student ratio and providing a tiered support network for staff members to foster an effective teaching environment across the undergraduate program.

We reflect on our experiences and use evidence from GTA and student surveys to understand the impact of online only teaching. We examine possible explanations as to why students felt the new approach fell short before detailing the revised teaching methodology implemented in the 2021/22 academic session to address these limitations. With the phased return to face-to-face teaching, we were able to supplement online teaching with limited in-person labs. We utilised the limited in-person teaching to mitigate the shortfalls of online-only lab delivery by forming a hybrid approach, of which we explore both GTA and student survey responses. While the response to online learning was positive, the hybridisation was viewed less favourably. GTAs indicated that despite in-person teaching being the best solution, they preferred solely online classes to a hybrid approach.

Introduction

The COVID-19 pandemic has disrupted teaching throughout the education sector by leading to a rapid move to online teaching, distinct from a carefully considered and planned move (Barbour *et al.*, 2020). This global issue has contributed to a surge in literature covering several aspects of online education, including sharing practices, faculty readiness studies, and perceptions of new teaching implementations. While many of these studies focused on teachers (Atmojo & Nugroho, 2020; van der Spoel *et al.*, 2020), students (Coman *et al.*, 2020), and faculties (Cutri, Mena & Whiting, 2020), literature on Graduate Teaching Assistant (GTA) contributions to and perceptions of the transition to online teaching is limited. For example, Tinnion, Simpson & Finlay (2021) report on GTA perceptions of the transition from large to small group teaching and learning, although their paper only describes the teaching activities used to keep students engaged.

Our paper describes GTA teaching practices for undergraduate computing science courses in the authors' institution after imposed restrictions due to the COVID-19 pandemic. To this end, we aim to contribute to the knowledge of education during crises such as the COVID-19 pandemic, emphasising the perspectives and experiences of GTAs. We provide insights into the design process of new teaching practices and critically evaluate the changes made by considering their impact on GTA teaching experiences and effectiveness according to students.

The following sections provide some context to this work and explain the changes made to move all teaching online and later a partial reintroduction of in-person teaching. We later reflect on the process and impact of the move on teaching quality, according to GTA and student responses.

Context

The authors' institution has an approximate Computing Science (CS) undergraduate intake of 320, seeing roughly 250 students graduating in the current academic year. Students enrolled in CS participate in lab sessions, which are practical learning sessions supported by GTAs. Like other institutions, in response to the COVID-19 pandemic, teaching moved online for the academic year 2020-21, with preparation beginning early in the summer of 2020.

The authors of this paper form the School of Computing Science's GTA Working Group. This group — originally formed of GTA representatives (postgraduate students with GTA roles) and supervising administrative and academic staff — was convened to improve the experience and quality of GTA teaching for senior academic staff, GTAs and students.

In March 2020, when a state of pandemic was declared and restrictions began to be applied in UK institutions, the School of Computing Science established a separate working group for online readiness to prepare the School for imminent online teaching. However, this working group was predominantly formed of senior academics who were

focussed on broader aspects of the shift to online learning with respect to content delivery; for example, investigating platforms for delivering online lectures, establishing guidelines for staff to follow to move their content online and providing guidance for the setting-up of exams.

The School's working group remit did not effectively capture the requirements for small-group teaching and did not have any GTA voices contributing to the discussion. Rather than adjusting the group's profile, the working group leaders requested that the already-established GTA Working Group adjust their focus specifically to designing a new best-practice framework for GTAs teaching online. This enabled the School working group to continue to focus on broader student and staff experiences while the GTA working group worked independently on small-group online learning. As such, this article is written by the team that formulated a structure – and later took part in the delivery of – GTA teaching during the pandemic.

COVID-19 Teaching Changes

In this section, we give some historic details of small-group teaching in the School of Computing Science and describe changes made due to the COVID-19 pandemic. We focus on labs, which are small-group teaching opportunities conducted in computer labs. In a typical lab, students are issued a task sheet related to some taught content that they work through under the supervision of a GTA. Some labs

have further specific expectations, such as group work or project presentation. However, the consistent expectation is that students are involved in some practical (mainly programming) activity while GTAs answer questions and supervise their work.

Practices Prior to COVID-19

Before the pandemic, CS labs were organised into classes of up to 25 students in Levels 1 and 2 and 70 in Honours[14] courses. GTA positions were only offered to master's and PhD students who self-reported sufficient experience in the module being taught. In some instances, module coordinators would request specific senior students by name if they had a particularly well-suited background, and these students would be given priority in the assignment of GTA roles.

Labs could last any length of time between an hour and a full working day. For example, Level 2 labs lasted either one or two hours, all Level 1 labs lasted two hours, and a particular Level 3 module had a lab session scheduled for a full day during which students were expected to work on team projects with tutors on-hand to support.

[14] The authors' institution is based in Scotland, where undergraduate degrees typically last for four years. The third and fourth years of study are referred to as 'Honours years' – colloquially and throughout this paper – as they contribute towards the final degree classification.

The number of postgraduate students employed as GTAs was below what would be required to have one per small group of students for each course: there were 27 GTAs (PhD students) to teach in the 2020/2021 academic session, and in semester 1, over 150 labs required GTAs for at least an hour each week. A GTA assigned three labs in a week would have over 10 hours of contracted teaching, which was the upper limit on what was deemed acceptable. Before the pandemic, staff numbers were also low, and GTAs were under growing pressure, stretched thin between teaching slots.

GTAs were categorised as ***tutors*** or ***demonstrators***: tutors performed marking, assisted with all levels of courses and orchestrated the running of larger labs with multiple demonstrators; demonstrators assisted tutors in labs, and most demonstrators were final year undergraduates.[15]

Effect of COVID-19 on Teaching

No in-person teaching was permitted at the University in the 2020/2021 academic year. The available options for remote teaching were media delivery through the University's website, a Virtual Learning Environment (VLE, specifically Moodle), through Microsoft Teams or through Zoom. Lectures were moved online, with autonomy afforded to

[15] Therefore, the GTA acronym is something of a misnomer in this case (since most demonstrators are themselves undergraduates), but still a valuable categorisation because the experiences of these staff – graduate or not – are analogous.

module leaders over the choice of live or pre-recorded lectures (or a combination thereof). The format of practical small-group sessions was prescribed for all pre-honour's undergraduate courses (Levels 1 and 2) but only suggested for honour's and postgraduate courses due to the larger cohort size in pre-honour's years and the variability of requirements for pre-honour's teaching.

The principal motivation during the planning for online lab class restructuring was the reduction of group sizes to maximise the potential of effective online sessions, shrinking from 25 students per member of staff to no more than 10, as informed by existing research (Akcaoglu & Lee, 2016). This was expected to improve interpersonal communication, foster a sense of community and increase social presence.

We adopted Microsoft Teams for all content delivery, as this platform supported shared conversation history, long-term file sharing and configurable group setups, which was well suited to our planned lab settings. The format for practical sessions was consistent within each level and demonstrated to GTAs before teaching began. A requirement was set for all GTAs to have a stable internet connection, a working camera and an audible microphone, though logistically the School was not able to offer any support in acquiring necessary equipment.

The most significant change was having undergraduates teach other undergraduates. For classes at Levels 1 and 2, we employed students at least two levels above, e.g., Level 3 students taught Level 1 students, but could not teach Level 2

students. Prior to this, undergraduate students did not generally teach in the department, especially those in levels below Level 4.

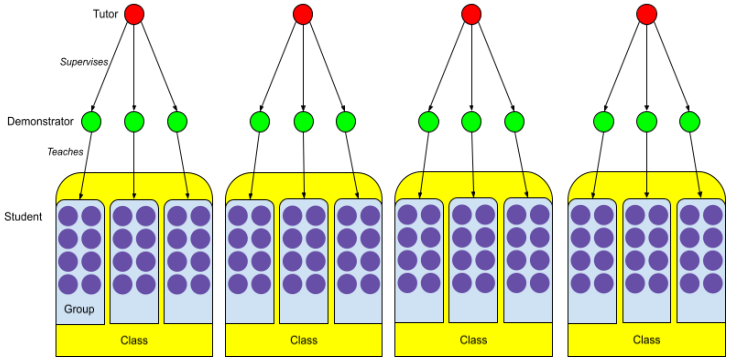

Figure 1: Visualisation of the structure of GTAs for teaching of courses at levels 1 and 2

The structure of practical sessions in Levels 1 and 2 is shown in Figure 1. Students were assigned a class of 15-25 students as before, but these classes were then divided into 3 groups with a demonstrator assigned to each sub-group. A tutor was responsible for the 3 groups in each lab and would move between concurrent meetings to observe, ensure appropriate teaching from the demonstrators and answer any questions that the demonstrator could not. This hierarchical structure was implemented to ensure both demonstrators and students were adequately supported.

Tutors were not explicitly trained on the management of demonstrators who reported to them. However, they were advised that it was their responsibility to highlight those they

felt were struggling with the course content or not engaging enough with the students.

We were not able to offer the same structure above Level 2 because we did not have the available GTA candidates with suitable experience. The structure for Levels 3 and above was to form groups in the same way but without a demonstrator, where peers supported each other, and tutors would move across the class groups to answer questions.

All classes in Levels 1 and 2 were shortened to an hour, where the majority had been scheduled for 2 hours previously. This change was motivated by reducing costs and minimising the fatigue associated with online learning (Behrens & Kret, 2019; Wiederhold, 2020). Students have always been expected to complete work outside of scheduled class time and arrive at labs with questions and difficulties they had encountered, so this change increased the need for student autonomy outside of the classroom as well as the need for tutor efficiency to deal with student questions within the time limit.

Therefore, in summary, the major changes to small-group teaching in the 2020/2021 academic year were:

- Entirely online teaching through MS Teams
- Smaller group sizes and shorter sessions to allow students more attention from GTAs and to avoid screen fatigue
- More junior GTAs (demonstrators) recruited from undergraduate years

- Adjusted lab structures for Levels 1 and 2 to increase the staff-to-student ratio in labs (which was only not employed in higher Levels of study due to a lack of available experienced GTA candidates)
- Alternating blended teaching 2021/2022

Social distancing rules were eased for the 2021/2022 academic year, and schools were encouraged to offer some on-campus teaching. Due to social distancing, groups alternated weekly between on-campus and remote labs. It was believed that this would engender a sense of community through physical proximity and drive engagement in both forms (Kaur, 2016). On-campus labs were conducted as before the pandemic: one tutor and one demonstrator supervising a class of students. However, the lab sizes remained reduced.

Evaluation and Discussion

We investigated the effectiveness of implementing the new lab structures; separate online surveys were distributed to students and GTAs at the end of the first semesters of the academic years 2020/2021 and 2021/22. All surveys consisted of Likert type questions and open-ended questions. This section will examine the responses to the questions asked in these surveys and draw possible conclusions tempered with the potential limitations of our investigative approach.

The 2020/2021 surveys were designed to understand individual experiences of the online lab group environment.

After the reintroduction of some in-person teaching for 2021/2022, additional questions were asked to compare experiences between fully online and hybrid teaching and to identify how well the School was able to address the issues identified in 2020/2021.

Each survey was analysed quantitatively by examining the proportions of responses to Likert and multiple-choice questions, and qualitatively by performing Content Analysis (Stemler, 2000) to identify major themes and the frequency at which they occurred in the responses.

2020/2021 Online Teaching Survey Results

The 2020/2021 surveys aimed to identify how our new lab structure helped mitigate the difficulties of a move to online teaching. The GTA survey received 28 responses, and the student survey received 307 responses[16]. Both students and GTAs were broadly in favour of the new lab structure (Table 1). When asked to identify what worked well in the online labs, several GTAs explicitly mentioned the subgroup structure (Table 2). For example, one GTA commented, "I believe splitting into subgroups is a great idea as it will help students communicate with each other and feel less isolated." Further, GTAs felt the new lab structure

[16] Note that in some of the results the number of respondents is lower because respondents were not required to submit an answer for every question. This is particularly apparent in written responses, which many respondents left blank.

encouraged students to “suggest solutions to other people’s problems” and “help each other with questions [...] has proven very effective as it is easier to learn from a peer”.

2020 Survey Respondents (n)	Lab group sizes are correct	Labs are positive, effective experiences
GTA (28)	88%	96%
Student (307)	94%	67%

Table 1: Summary of reported agreement with three statements posed to both GTAs and students in the online lab surveys (2020/2021)

Theme from GTA response	Count (proportion), n=28
Collaboration between students	7 (25%)
Practical examples discussed as a group	7 (25%)
Small groups, more demonstrators	7 (25%)
Ability to discuss problems asynchronously	2 (7%)

Table 2: Occurrences of themes in GTA responses to a question asking what they feel has worked well in online labs (2020/2021)

In support of this view of labs from GTAs, many students expressed positive sentiments: some stated that labs were

the “best part of [their] uni schedule”, and many others expressed having “really enjoyed the labs”. Table 3 shows the students’ Likert responses. Overall, students reacted well to the increase in the number of GTAs and had a favourable view of their online lab experiences.

	n	1	2	3	4	5
Are you enjoying the lab sessions? (1 being "not at all" and 5 being "very enjoyable experience")	307	9%	11%	26%	29%	23%
How important do you believe labs are for your education? (1 being "not at all" and 5 being "very important")	307	4%	7%	17%	21%	52%
Do you feel you are adequately supported in the lab sessions? (1 being "not at all" and 5 being "very well supported")	306	4%	7%	19%	27%	43%
How comfortable are you asking questions or having a discussion with your group during the lab	307	7%	10%	19%	25%	38%

meeting? (1 being "not at all comfortable" and 5 being "very comfortable")						

Table 3: Proportions of student responses to Likert questions on their online lab experiences (2020/2021)

Both surveys identified some issues (see Table 4 for the issues students raised). Many GTAs found engagement in their small lab groups to vary significantly (see Table 5), with groups being described as “very passive” and students not making use of their microphone and camera. The student survey results showed that 53% of respondents only used their microphone, and 26% only communicated via typed messages (see Table 6). For improving lab interaction, students’ suggestions included getting GTAs to encourage camera usage and employing different lab formats that might lead to more engagement. Both GTAs and students suggested increasing the duration of the labs.

Theme from Student response	**Occurrences (proportion), n=140**
General satisfaction	49 (35%)
General dissatisfaction	42 (30%)
Lack of interaction from other students	26 (19%)
Labs feel awkward or uncomfortable	13 (9%)
Labs are too short	12 (9%)

Table 4: Occurrences of themes in students' comments on remote labs (2020/2021)

Are the students engaging and communicating with you and their group?	Count (proportion), n=27
No engagement	0 (0%)
Limited engagement from a few students	6 (22%)
Some engagement from all students	12 (44%)
High engagement from a few students	8 (30%)
High engagement from all students	1 (4%)

Table 5: GTA responses to questions about how much engagement they typically experienced in labs (2020/2021)

In a typical lab, do you…	Count (proportion), n=307
Have camera on the entire time	44 (14%)
Have camera on sometimes	74 (24%)
Never turn my camera on but use my microphone	163 (53%)
Respond via text and occasionally use my microphone	81 (26%)
Respond via text and never use my microphone	10 (3%)
I attend but don't respond at all	12 (4%)
I do not typically attend labs	4 (1%)
Other	1 (0%)

Table 6: Students' responses to their most common methods of lab interactions. Note that students could select multiple responses, so the proportions are based on the number of students rather than the number of responses recorded.

2021/2022 Hybrid Teaching Survey Results

The 2021/2022 surveys aimed to understand the impact of employing a hybrid approach of alternating in-person and online labs. The GTA survey garnered 47 responses. These responses presented a positive view of hybrid labs (see Table 7) despite a small proportion (2-7%) of respondents who indicated that both online and in-person labs were not at all effective.

GTAs preferred in-person teaching: 31% noted that they found students engaged more in in-person labs than they did online (see Table 8). One noted, "students are much more actively engaged [in-person], asking questions, working on assigned problems." Some even suspected that students withheld questions during online labs for the following week when they could ask them in person.

GTAs identified more effective communication as another positive aspect of in-person teaching. One GTA remarked, "I can always see how a student is doing and [...] if they are present, I can ask to see what they are doing or how far along they are."

	n	**1**	**2**	**3**	**4**	**5**
How effective do you find in-person labs (if applicable) this year? (1 being "least effective possible" and 5 being	43	2%	2%	9%	40%	47%

"most effective possible")						
How effective do you find online labs (if applicable) this year? (1 being "least effective possible" and 5 being "most effective possible")	44	7%	27%	39%	14%	14%

Table 7: GTAs' Perceptions of the effectiveness of in-person and online labs during hybrid teaching delivery (2021/2022)

GTAs noted that online labs were relatively poorly attended when compared with in-person, with comments such as, "during online sessions my attendance drops, even though the online labs are theoretically easier to attend." When asked about how they would improve this, three key suggestions emerged:

- Inclusion of more "group [problem] solving skills" in labs, with tasks such as pair-programming, group worksheets, and discussions.
- Adjustment of school policy to encourage more interaction and engagement, particularly on the use of microphones and cameras.
- The use of alternative tools such as Gather[17]. It gives students more flexibility in who to interact with and

[17] A 2D online videogame-style environment where participants move an avatar through a virtual space; as participants' avatars get closer to each other, the platform uses the device's camera and microphone to give the user presence (https://www.gather.town/).

opportunities to retreat to quieter spaces to work independently.

Overall, when not exclusively talking about online or in-person labs, GTAs comments were mixed. One response noted: “online labs are good [...] however, the in-person labs seem to get more practical work done versus the online ones.” Many GTAs reported that the hybrid teaching method improved their teaching experience, with common themes from their responses shown in Table 8. 32% of 44 responses in the 2021/2022 survey indicated a preference for a blended approach when asked which teaching method they would take forward post-pandemic. 9% preferred online-only learning, and 59% preferred a return to in-person teaching. GTAs had vastly more positive teaching experiences during in-person labs, as seen in Table 7, while the motivation for the hybrid approach was to improve student-GTA and student-student relationships; notably, few responses remarked on this explicitly. In this respect, hybrid teaching is positive insofar as it provides some in-person teaching, much preferred to online teaching. Future iterations of this delivery approach - when social distancing restrictions ease, thereby increasing in-person delivery capacity - might allocate individuals to either online or in-person labs to tailor labs to the individual better.

Theme from GTA response	**Occurrences (proportion), n=47**
Students interact more in-person	15 (31%)

Prefer teaching in-person	9 (19%)
In-person isn't always possible	7 (15%)
In-person feels more productive	6 (13%)
Both online/in-person have merits	6 (13%)
Participation is bad online	5 (11%)
Easier to see student progress in-person	4 (9%)
Online more approachable	4 (9%)
Lack of continuity with a hybrid approach	4 (9%)
Easier to encourage group work in-person	3 (6%)
Time allocation	3 (6%)

Table 8: Occurrences of themes in GTA responses to hybrid learning when asked to compare online and in-person teaching (2021/2022)

Interestingly, when asked to rate their enjoyment of online labs, students reported enjoying the online labs substantially more in the online-only year of 2020/2021 than when labs were hybrid, as seen in Table 9. Similarly, they reported feeling more supported when labs were online-only. The full proportions of Likert responses used to generate these

figures can be found in Table 3 for the 2020/2021 semester and Table 10 for the 2021/2022 semester.

	2020/2021	2021/2022
Enjoyment of online labs	77%	56%
Enjoyment of in-person labs	*n/a*	74%
Support in online labs	85%	64%
Support in in-person labs	*n/a*	78%

Table 9: Mean scores of student enjoyment and perceptions of availability of support for online and in-person labs (2020/2021 and 2021/2022), where 0% represents no enjoyment or support and 100% represents the maximum possible enjoyment or support.

	n	**1**	**2**	**3**	**4**	**5**
Are you enjoying the online lab sessions? (1 being "not at all" and 5 being "very enjoyable experience")	108	27%	20%	17%	19%	17%
Are you enjoying the in-person lab sessions? (1 being "not at all" and 5 being "very enjoyable experience")	108	8%	10%	21%	27%	33%
Do you feel you are adequately supported in the in-person lab	108	5%	6%	24%	26%	40%

sessions? (1 being "not at all" and 5 being "very well supported")						
Do you feel you are adequately supported in the online lab sessions? (1 being "not at all" and 5 being "very well supported")	108	18%	15%	22%	22%	23%

Table 10: Proportions of student responses to Likert questions on their hybrid lab experiences (2021/2022)

The most common theme in student responses in the 2021/2022 survey was that labs were much better in 2021. One student remarked: “I really enjoy getting to ask tutors in-person about my problems, and seeing them explain things is much better in-person,” and another noted that “it is nice to have a dedicated working environment to focus on the lab.” While 21% of student responses stated that they would prefer all labs to be in-person, 9% of responses stated that they would prefer labs were all online and 4% found it easier to get help when online. Other themes and their frequencies are listed in Table 11.

Theme from Student response	**Count (proportion), n=68**
Labs are better now	26 (38%)
Prefer all in-person	14 (21%)

Labs are worse now	11 (16%)
Easier to get help in-person	10 (15%)
Prefer all online	6 (9%)
Labs haven't changed	5 (7%)
I enjoy being on campus/in the lab	5 (7%)
Better discussion/explanations in-person	5 (7%)
Dislike travelling to campus	4 (6%)
Easier to get help online	3 (4%)
Social distancing limits effectiveness of in-person labs	3 (4%)

Table 11: Occurrences of themes from student responses when asked to compare labs this year to labs in the previous year (2021/2022)

One frequent suggestion from students was to include more collaborative work (see Table 12), already highlighted in the 2020/2021 survey, as a significant positive of online teaching. One student remarked that GTAs should encourage "students [to] work together on the problems when in-person." From remarks in both years of surveys lamenting the lower level of collaboration during in-person labs, we can see that group work is something students enjoy and should be something GTAs can employ moving forward in both in-person and online labs. Indeed, this kind of group work has proven to be effective in a computing context (Porter *et al.*, 2011; Simon *et al.*, 2013) and has since been specifically adapted successfully within pandemic restrictions (Ala, Yang & Ala, 2021).

Theme from Student response	Count (proportion), n=109
More proactive GTAs	20 (18%)
GTAs encourage student collaboration	18 (17%)
More in-person labs	15 (14%)
More GTAs in labs	8 (7%)
GTAs should be more approachable	6 (6%)
Reduce social distancing restrictions	6 (6%)
Given the option of the type of labs to do	4 (4%)
Change length of online labs	3 (3%)
More online labs	3 (3%)
Make it easier to get support online	3 (3%)

Table 12: Occurrences of themes from student responses when asked how labs could be improved (2021/2022)

Limitations

Several limitations should be discussed regarding these findings. Both in 2020/2021 and 2021/2022, student feedback came primarily from Levels 1 and 2 - very few responses came from honour's students, which does not allow us to evaluate in detail how honour's-level students have been affected by fully online and hybrid learning. This could be explained by the different lab structures of honour's courses since students did not have a fixed amount of time with a GTA for the duration of the lab. Additionally, honour's students have had the chance to experience in-person labs in

their original format with a higher in-person staff-student ratio, so perhaps they found the transition more difficult.

As there was only a single survey in 2020/2021, we were not able to evaluate the effect of online learning over time. We would like to have identified whether online learning fatigue developed over the course of the academic year and how this may have affected the experience and effectiveness of online labs. We would have explored this by identifying whether the number of students not engaging increased or decreased and how online fatigue may have been reflected in how cameras, microphones, and virtual whiteboards were used.

Impact on GTAs and GTA Experiences

Aside from the perceived effectiveness of the shift to online teaching for GTAs and students, we also analysed comments from GTAs to detect any recurring issues regarding their experiences of teaching with the new system. Despite the significant upheaval, no substantial issues arose. GTAs appreciated the changes made and took to the new scheme well. Given the increased pressure and reliance on GTAs across the School, this is very encouraging.

We believe that many potential issues were avoided by using the GTA Working Group to redesign the format of online teaching. This group consisted of practitioners who were aware of many of the potential challenges in small-group teaching through experience, and in some cases through research. As such, the structure was created in a way that

mitigated many of these expected issues. Furthermore, having experienced GTAs involved in organising the structure of GTA-led teaching was well received by the wider GTA cohort.

For example, prior to the pandemic there had been several instances of GTAs being unable to attend their teaching sessions at the last minute. Since many classes ran at the same time, the standard procedure to address this issue was for tutors teaching other classes in the same lab to take turns supervising the unattended class until appropriate cover could be found. This does not translate well to online delivery (where different users don't have access to everyone else's channels and chats in Teams), but knowing it was likely to be an issue, classes were designed to have extra GTAs to cover absences if required. Recall that in levels 1 and 2, each lab group had three subgroups, each supervised by a demonstrator, and a "floating" tutor to support as required. If a demonstrator was unable to attend, the tutor could step in to cover their group. If the tutor was unable to attend, the demonstrators could still work autonomously. This did mean that in both cases the tutor would not be available to move between groups and provide additional support to demonstrators, but this was still a satisfactory temporary solution as all students did have contact with a GTA for the entire session. Since the GTA Working Group were aware of such issues through prior experience, we were able to improve the experiences of GTAs and students by designing our structures with consideration of circumstances we had

encountered many times in the past, to avoid stress, panic and overworking our staff when failures did occur.

There were some recurring sentiments from GTAs identifying challenges faced. The main concern was the length of the online classes, with several tutors indicating that an hour was not enough time to deliver the content and they felt that they were rushing or leaving things out, generally increasing the stress of delivery. However, many GTAs also acknowledged that they understood the reason for reducing the session lengths (Zoom fatigue) and recognised the shorter delivery times as the "lesser of [two] evils". If online teaching is required in the future, we will consider different methods of delivery to allow us extra contact time with the students whilst avoiding Zoom fatigue. Alternative meeting software may be a route to achieving this, though more research and GTA perspectives are required.

Another unpleasant aspect of the GTA experience which was raised was unreliable peers and colleagues. Although these comments were far less frequent, some tutors indicated that the demonstrators didn't engage with their classes enough or came unprepared and some demonstrators indicated that their tutors didn't provide them with enough support. Frustratingly for the GTA Working Group, this was a known issue that the group had originally been formed to address prior to the pandemic but had not been able to consider as focus moved to designing the new small-group structures. The issue was compounded by the move online due to the large increase in GTAs being employed without sufficient

quality checks or continuous reporting solutions and the reduced serendipitous access to CS staff (e.g., catching a lecturer at the end of their session to ask a quick question). With new structures designed and mostly running smoothly, the GTA Working Group can begin to focus on these issues again to improve the experiences of staff and students. However, the increased interaction between GTAs and undergraduate demonstrators may have contributed to the increased reporting of concerns.

In summary, we did not observe any major negatives relating to the GTA teaching experience with the new online model. We believe that this is largely due to our School having a proactive, formally organised group of GTAs who were given a voice and a platform to share their experiences and assist in the move online. Minor concerns were mitigated by the increased representation of GTAs in the planning of delivery and, particularly in the first academic year of remote delivery, an acceptance that circumstances were difficult.

Reflections and Recommendations

To address some of the shortcomings of online labs, a hybrid design was adopted during the academic year 2021/2022. While we hoped the hybrid approach might resolve some of the issues outlined by students and GTAs previously, the 2021/2022 surveys showed a more nuanced view. Based on previous evidence, we expected the in-person labs to foster a sense of community and improve the dynamic of the online

sessions. However, students seem to either prefer only online or only in-person labs. Reasons for this varied from getting better support during in-person labs to avoiding commuting. It may be possible to provide both forms of labs – entirely in-person and entirely online – and allow students to self-allocate according to their preferences. However, we recommend that such a strategy require close monitoring to ensure that students in each lab are afforded equal opportunities regarding the level of support and access to teaching staff.

The lower scores on support and enjoyment for the 2021/2022 lab sessions – in both delivery methods – could be attributed to several factors. Firstly, the initial survey was carried out in semester 1 of 2020/2021 at the outset of online teaching and before an additional year of online fatigue. Another potential factor is that students may have used this survey to indicate their preference for in-person labs, thereby deliberately lowering their ratings for online labs. Also, based on student responses to the 2020/2021 surveys, a non-trivial number of students indicated that computing labs were the best organised and most effective of any of their online learning sessions in other courses, perhaps positively skewing the results in 2020/2021. Despite this, the result is surprising since we expected the hybrid model to achieve the best of both worlds, so this should be examined in more detail in future work.

A major suggestion from students and GTAs was to integrate more collaborative work: this is practically possible with

appropriate online tools which allow live collaboration, such as shared whiteboards, documents and even development environments. However, the effective use of online tools will likely require additional training for GTAs. Nonetheless, the most substantial barriers to introducing more collaborative work are likely to be the course content itself, which GTAs rarely have control over. While resources are available to encourage and support collaborative work (Simon & Cutts, 2012), the responsibility remains with academic staff to implement changes.

When running hybrid labs, ensuring students can work in the same dedicated small groups both online and in-person might improve their experience. As pointed out in the 2020/2021 survey, students enjoyed working together and explaining problems to each other. Perhaps, designing more exercises where this could be applied in the in-person setting whilst adhering to some physical distancing will improve the social aspect of both lab sessions, and students will not feel like they are only talking to GTAs. Due to the tier structure of the labs, it is possible to introduce some 1-1s in most sessions to allow students to feel better supported, which may improve the levels of support that were deemed to be low in the 2021/2022 labs.

The GTA Working Group was established following the initiative of GTAs themselves to address concerns about professionalism and welfare of GTAs in the School. Progress was being made in this regard, and we encourage other institutions with a comparable GTA contingent to consider

similar processes. Our work is ongoing: this is a continuous process which was paused by necessity but has since been resumed and will continue to operate for as long as GTAs are employed by the School. We have been able to survey the appraisals from GTAs of the new teaching framework, which were largely positive, but have not yet been able to specifically evaluate the welfare of GTAs in this system. We also feel that many challenges which could have been faced by GTAs during the pandemic – Zoom fatigue, poor platform design, etc. – were side-stepped by allowing this group to provide important insights to the development process of the online teaching strategy. We would encourage any School or College to formulate their own groups of experienced GTAs to support their faculties and ensure that GTA voices are being heard in the decision-making process.

Conclusion

In this paper, we have described how we adjusted our lab teaching during the COVID-19 pandemic. We have provided our reasoning and backed up our changes where appropriate. We have provided detailed insights into GTAs involved in teaching and students who experienced it. Some of our changes, including increasing the number of staff available and reducing the time spent in practical sessions, were well received. Others, such as transitioning to hybrid teaching, were not universally appreciated.

The purpose of this article is to share the experience of moving a large, varied cohort to online small-group teaching from the perspective of a group of GTAs. While our move to online teaching and subsequent hybrid teaching was effective, there are clearly lessons to be learnt and more work to be done. Our hope is that by sharing these experiences we can begin to develop a community of practice among GTAs beyond our institution.

References

Akcaoglu, M. & Lee, E. (2016) 'Increasing Social Presence in Online Learning through Small Group Discussions', *The International Review of Research in Open and Distributed Learning*, 17(3). doi:10.19173/irrodl.v17i3.2293.

Ala, O., Grace., Yang, H. & Ala, A.A. (2021) 'Leveraging integrated peer-assisted learning clusters as a support for online learning', *Interactive Learning Environments*, pp. 1–13. doi:10.1080/10494820.2021.1943454.

Atmojo, A.E.P. & Nugroho, A. (2020) 'EFL Classes Must Go Online! Teaching Activities and Challenges during COVID-19 Pandemic in Indonesia', *Register Journal*, 13(1), pp. 49–76. doi:10.18326/rgt.v13i1.49-76.

Barbour, M.K., LaBonte, R., Kelly, K., Hodges, C.B., Moore, S., Lockee, B.B., Trust, T. & Bond, M. (2020) 'Understanding Pandemic Pedagogy: Differences Between Emergency Remote, Remote, and Online Teaching'. doi:10.13140/RG.2.2.31848.70401.

Behrens, F. & Kret, M.E. (2019) 'The Interplay Between Face-to-Face Contact and Feedback on Cooperation During Real-Life Interactions', *Journal of Nonverbal Behavior*, 43(4), pp. 513–528. doi:10.1007/s10919-019-00314-1.

Coman, C., Tiru, L.G., Mesesan-Schmitz, L., Stanciu, C. & Bularca, M.C. (2020) 'Online Teaching and Learning in Higher Education during the Coronavirus Pandemic: Students' Perspective', *Sustainability*, 12(24), p. 10367. doi:10.3390/su122410367.

Cutri, R.M., Mena, J. & Whiting, E.F. (2020) 'Faculty readiness for online crisis teaching: transitioning to online teaching during the COVID-19 pandemic', *European Journal of Teacher Education*, 43(4), pp. 523–541. doi:10.1080/02619768.2020.1815702.

Kaur, P. (2016) *Underpinnings of User Participation in Innovation on Online Communication Platforms*. Aalto University. Available at: http://urn.fi/URN:ISBN:978-952-60-6831-2. [Access Date: 28 January 2022]

Porter, L., Bailey Lee, C., Simon, B. & Zingaro, D. (2011) 'Peer Instruction: Do Students Really Learn from Peer Discussion in Computing?', in *Proceedings of the Seventh International Workshop on Computing Education Research*. New York, NY, USA: ACM (ICER '11), pp. 45–52. doi:10.1145/2016911.2016923.

Simon, B., Esper, S., Porter, L. & Cutts, Q. (2013) 'Student experience in a student-centered peer instruction classroom', in *Proceedings of the ninth annual international ACM conference on International computing education research*. *ICER '13: International Computing Education Research Conference*, San Diego San California USA: ACM, pp. 129–136. doi:10.1145/2493394.2493407.

Simon, B. & Cutts, Q. (2012) 'How to Implement a Peer Instruction-designed CS Principles Course', *ACM Inroads*, 3(2), pp. 72–74. doi:10.1145/2189835.2189858.

Stemler, S. (2000) ‘An overview of content analysis’, *Practical Assessment, Research, and Evaluation*, 7. doi:10.7275/Z6FM-2E34.

Tinnion, D., Simpson, T. & Finlay, M. (2021) ‘Face-to-face teaching changed too! Perspectives on the transition from large to small group teaching and learning from graduate teaching assistants’, *Journal of Learning Development in Higher Education* [Preprint], (22). doi:10.47408/jldhe.vi22.785.

van der Spoel, I., Noroozi, O., Schuurink, E. & van Ginkel, S.(2020) ‘Teachers’ online teaching expectations and experiences during the Covid19-pandemic in the Netherlands’, *European Journal of Teacher Education*, 43(4), pp. 623–638. doi:10.1080/02619768.2020.1821185.

Wiederhold, B.K. (2020) ‘Connecting Through Technology During the Coronavirus Disease 2019 Pandemic: Avoiding “Zoom Fatigue”’, *Cyberpsychology, Behavior, and Social Networking*, 23(7), pp. 437–438. doi:10.1089/cyber.2020.29188.bkw.

Shape Shifting – Autobiography as a tool for exploring boundary practices: A GTA's perspective

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Abstract

This autobiographical paper sets out to discuss the value of introducing new practices to established discourses around teaching. Drawing on my background heavily influenced by the creative arts along with my present-day role as a Graduate Teaching Assistant (GTA) for a world-leading Faculty of Education, I will present a discussion that explores the impressions made by various professional encounters (Clements, 1999) and how they may spillover to inform a learning context.

Taking from my hatstand the roles of Artist and GTA, I will devise a reflexive commentary outlining the relationship between these identities, taking into account the theory of multi-membership (Wenger, 1998) and communities of practice (Lave & Wenger, 1991). The autobiographical method has been proposed in this reflective article as a valuable tool for GTAs to support the exploration of the meanings of their multi-memberships.

As we progress through life's many stages our portfolio of roles may grow, as might the number of professional titles

we are assigned. While these can oftentimes be interpreted as conflicting (Ibarra, 2003), they can also present opportunities for collaboration or transfer of knowledge across boundaries (Martin et al., 2014). With these roles, we implement various styles of communication in various environments. The GTA has been known to act as a bridge in between, facilitating knowledge delivery through shared behaviours and familiarity with various community norms (Compton & Tran, 2017).

Reflection on these practices has provided points of departure concerning the crossover of learning environments and creative academic activity. Qualitative methodologies have begun to reveal a growing body of creative research methods and means of presenting data within the formal academic landscape (Hakanurmi, Palonen & Murtonen, 2021; Mittelmeier et al., 2021). This has inspired me to inquire into the tools that practitioners employ and hence share across our discourses. Arguing that these needn't be considered context specific, I exhibit a brief discussion of information exchange in the classroom and the gallery.

Introduction

Within higher education, pursuing the role of Graduate Teaching Assistant (GTA) can be considered an opportunity for transformative learning. Transformative learning (Mezirow, 1991) is a process of self-reflection and adjustment pertaining to an individual's belief systems and behaviours, amongst other things, as a result of an influential encounter. These new understandings may make an impact on an individual's identity (Partin, 2018), affecting how they perform, relate to and interact in particular contexts.

Central to this article, is a discussion exploring how one's prior knowledge can be employed across discourses, and to what extent our lived interactions shape and conflict with the identities we devise to implement this practice. Written from the perspective of a GTA practicing within a world-leading Faculty of Education, autobiographical reflections on my career trajectory present my transformation through a narrative that critiques person, place and practice over time. This reflective paper aims to provide a point of departure in the literature on GTAs, offering a holistic view of the diversified experiences that have affected the way I approach the practice.

This evolution of identity (Furnham & Gunter, 1993; Coman, 2016), often aided through socialisation (Kopala, 1993; Partin 2018), can assist an individual in becoming part of a community or landscape, and to enhance their professional contribution. Characteristics and behaviours expected in new roles are added to a backdrop of subject-specific knowledge

and styles of communication, which can periodically require an individual to modify their performance. Undergoing a transformation or change, can launch one into a state of liminality, initiating feelings of instability or uncertainty, feeling that they belong 'neither here nor there' (Turner, 1974: 232), a common notion in GTA practice where individuals often find identifying with just one role quite challenging. Cutcher (2015: 226) states that "…when you belong nowhere, you seek to belong everywhere", a statement I find rings true throughout my trajectory, all the long in search of sameness and shared values.

This article explores my role as a GTA in tandem with my Arts and Education focused career trajectory. The autobiographical method is discussed in the following section, followed by a literature review exploring the extent to which multi-membership and communities of practice have impacted upon my pursuit of adjustment and professional practice. I recognise the relevance of the study of intersectionality on this matter where group and identity politics are concerned but regret that it is not explored in this paper. Subsequent to this, is an autobiographical reflection on pivotal positions that continue to influence my identity. A discussion of this undertaking concludes the article, outlining the value of autobiography in transdisciplinary practices, and recommendations for creative research and learning tools.

Methodology

To explore the transdisciplinary nature of my practice, the autobiographical method was considered an effective means of accumulating a timeline of narratives through a process of reflection, from which a holistic view of the various experiences could be retained (Lewis-Beck, Bryman & Liao, 2011).

Autobiography is often considered a form of self-interrogation (Mahani, 2020), where chronological lived experience can be produced as stories offering rich accounts of data (Schlamb, 2020). To carry this out, I reflected upon the various passages I have undertaken (Markides & Markides, 2020), taking into account the diversity of situated encounters with spaces and individuals. Frequently used to facilitate individuals in developing their professional practice, autobiography can help to make sense of scenarios and encounters, as well as relationships with others (Clements, 1999; Menna Barreto Abrahão, 2012). These happenings can impact the individual's beliefs, behaviours, and approaches to their practice. The same can be said of identity, which is thought to be informed by social, cultural, and environmental surroundings (McLean, 2012). We provide contrasting aspects of our identity (Lyle, 2020) under different circumstances, while these circumstances simultaneously provide influence on us (Mahani, 2020).

The self-portrait illustrated through my reflections, tells a unique story of transformation. The timeline evidences a series of life stages and how these have informed my career

trajectory. The language employed intends to produce a set for each pertinent scene that helped to shape how I address my practice, describing the process of becoming and belonging.

Literature Review

Identity and Community of Practice

Identity has been thought of as "…never whole, but rather multiple and fragmented" (Cutcher, 2015: 130), arguably a notion conveyed through autobiographical research. Variations of identity are bestowed upon an individual as a consequence of our copious experiences with cultures and situations (Mahani, 2020). This review of literature examines the impact of social and professional interactions, along with our relationships with these contexts (Lyle, 2020), on the development of identity.

Interactions facilitating socialisation and collaboration can result in forming collective identities (Lave & Wenger, 1991). Within these, individuals may share values and beliefs, interests, and oftentimes practices. Communities are realised through these connections and common bonds (Lawthom & Whelan, 2012), notably addressed in the literature on Communities of Practice (CoP) (Lave and Wenger, 1991). A CoP is polyvocal. Individuals participate in group activities which may expand their knowledge and expertise (Wenger, 1998). Assimilation into the CoP is affirmed by commitment to fulfilling the practices of the group (Lawthom & Whelan,

2012), this association can provide individuals with support and security (Thornton, 2005). In the context of the current article, multi-membership (Wenger, 1998) has been discussed, demonstrating the fluidity of identity, and the possibility for undertaking many overlapping roles in multiple CoPs throughout our unique trajectories.

The role of GTA exemplifies how diverse qualities and skills can exist within one person, demonstrating applicability to multiple communities and contexts. GTAs are afforded opportunities to interact with and relate to both students and staff through encountering teaching and learning (Lund, 1993; Compton & Tran, 2017), informing their shifting identity. This dual identity has been recognised in other institution-based roles like Art Educator, combining the Artist and Educator professions, where "worlds must be straddled or interrelated" (Thornton, 2005: 167). There are instances where roles have the capacity to employ aspects of practices across disciplines; for instance, in higher education creative research methods can be incorporated to probe subject matter, encouraging communication through visual stimuli to overcome language barriers (Cutcher, 2015). The malleability of these individuals directs their role towards that of a facilitator or mediator.

Across disciplines

The higher education population is both vast and diverse, comprising multifarious identities with a breadth of experiences and knowledge bases. This population can be supported in various ways; for instance, the GTA has been

known to facilitate students' learning through their "empathy with students based on similarity of experience" (Winstone & Moore, 2017: 498), while also carrying out distinct behaviours and skills inherited from their academic mentors (Compton & Tran, 2017).

Depending on the requirements of a situation, an individual may draw upon their most significant identity qualities (Stryker & Burke, 2000) to facilitate learning. In the context of this article, I explore how an individual may employ known traits to help blur the boundaries between practices, to accomplish a more inclusive learning experience. The artist-turned-GTA might consider how the transformation of knowledge into visual stimuli such as photographs or paintings, can make available contrasting languages (Dewey, 1934; Kokkos, 2021) and access points (Banks, 2011), facilitating individuals to participate in learning where they may have previously struggled to connect with written content. This can encourage individuals to draw upon their former knowledge and experiences to give rise to unfamiliar interpretations of matter (Haley, 2008).

While creative material is likely to comprise of abstract qualities that ascend beyond the printed page, numerous models have been endorsed to analyse artwork, confirming Dewey's (1934: 211) notion that while speech dominates transmission, "each art speaks an idiom that conveys what cannot be said in another language", through writing for instance. Broudy and Silverman's conception of Aesthetic Criticism (Broudy, 1987) describes artwork deconstruction;

these steps include exploring the historic dimension, the creative dimension, and the judicial dimension (Kokkos, 2021). This requires similar cognitive dexterity employed to explore academic texts, taking into account the field or positioning of the material, the objectives and impact of the work, as well as the credibility of the source. This example evidences a bridge between the disciplines, and highlights the distinct approaches taken to convey information. More precisely put “Science states meanings; art expresses them” (Dewey, 1934: 209-210), this contrast in disseminating information resonates with the knowledge that learners have different needs and can be supported through different approaches.

The art object, or sign (Saussure, 1959; Goodman, 1972) can comprise of symbols, codes, and curated visual metaphors. When meaning is housed internally as well as externally, examination of the parts can facilitate understanding of the whole, reducing the risk of marginalising individuals in the learning experience (Allan, 2008). As Azzopardi (2012: 42) explains, “[t]he boundaries of a community are not only physical but also symbolic”, reaffirming the value of differentiating material so to provide opportunity for all to become anchored in the learning experience. The artwork mediates meaning; it can translate esoteric language (Parsons, 2010), making way for shared impressions and perceptions between learners. Opening the experience up in this way can bring together individuals to nurture branches of understanding.

Belonging and Place

Communities can be formed of diverse groups of individuals, based on shared interests, a common need, or their location (Schlamb, 2020); they might be context-specific, pertaining to the workplace, academia, or a social space or activity (Gravett & Ajjawi, 2021). Being familiar with situations can help build connections (Markides & Markides, 2020), as reaffirmed by Lave and Wenger (1991) who explain how the extent to which one participates in a community will inform their relationship with it; for instance, the responsibilities or roles taken on within the group.

Acquiring a sense of belonging or a "deep connection" (Lyle, 2020: 1) within a community, to a place, or a precise time, can offer security or affinity through an awareness of shared qualities that characterise the experience (Lave & Wenger, 1991). Belonging may come about through an identity informed by our relationships and roles fulfilled within a certain context (Kraus, 2006).

While some places we encounter may only be part of fleeting experiences, some locations remain constant throughout one's lifetime: a family home, a birthplace, a religious place, etc. Continued association with these places enables various strands of identity to endure, allowing the sites to shape and educate us (Gruenewald, 2003; Schlamb, 2020). As Markides and Markides (2020: 115) assert "[t]he places we inhabit, inhabit us".

Emotional or intellectual connections bound to places can produce conflicting perceptions of self, other, and context (Schlamb, 2020; Leighton, 2020), as we acclimatise or integrate into new situations - relationships with these can determine our sense of belonging. Cutcher (2015: 221) explains how belonging is "a *process* not a consequence; it is a perpetual progression of encounter and becoming", suggesting that while belonging can at times be experienced in multiple contexts concurrently, it can also be lost and found again as we travel through life's many stages.

Autobiographical Excerpt

This autobiographical excerpt sets out to address the various influential encounters that have shaped my career trajectory and consequently my identity. One of the many roles undertaken throughout my career is that of GTA, this has been thought of as a liminal or 'in-between' role (Turner, 1974) which is known to spur on individuals to take on a wealth of characteristics connected with distinctive communities. This cross-engagement and multi-membership has informed the way that I have approached the implementation of unfamiliar practices to others; this narrative presents an exploration of how my former experience in the Arts has contributed to my present-day role as a GTA.

Space / Place

Uprooting from the comfort of the classroom, I recall hastily acclimatising to the expectations of higher education as I embarked on a Fine Art degree. Immersing myself in the programme meant identifying with the values of the organisation; over time I grew to feel a part of the scene, a notion shared by Schlamb (2020) who discusses how identification with place can be reliant on one's involvement with it over a duration. Searching for ways to facilitate my identification as an artist, I reconsidered how my artwork was exhibited within the great expanse of space making up my studio. Deserting the sketchbook was a simple but transformational act, granting passers-by access to my work. My ideas appeared to migrate across the space in murmuration; the localisation of my practice enabled me to orchestrate the experience generated from interactions with the work. As Trofanenko and Segall (2014) put it, by using the language of the space I was able to facilitate others in understanding the abstract matter.

We would organise group exhibitions beyond the university site to engage with new audiences, spurring on a reconsideration of our competencies; undertaking various roles challenged us to examine the receptiveness of material in different contexts. These alternative spaces unearthed opportunity to validate various means of communication, ensuring that knowledge was available to those participating in the experience. This notion is discussed in more depth in Luzón (2013), who explores the recontextualization of

esoteric information, in particular concerning the lay public. This helped the language of the space to come alive; Dewey (1934: 211) confirms that “Language exists only when it is listened to as well as spoken”, proposing that the artwork can act as a mediator between creator and receiver.

I later found myself researching in a small team of specialists. The office resembled that of a Victorian clerk’s, with books piled high and a bounty of Vaseline shades hanging down above me. Utilising my former expertise, I would source esoteric material and information about rare and important antiquities to be communicated to fellow enthusiasts, a role often played by museums, Hooper-Greenhill (2000) writes. The computer, while appearing out of place amongst its printed counterparts, endorsed my value within the organisation.

Working unaccompanied impaired my perspective of the community of practice as I struggled to become affiliated. This led to great value being placed on former associations as I sought out practitioners with whom I had shared values.

Longing / Belonging

Artefacts produced for group shows were regularly composed by one artist, representing a collective input. This polyvocal quality was accomplished through familiarisation. Our collective provided stability and a sense of belonging, achieved through mutual behaviours and beliefs, commonly the foundation for establishing what Lave and Wenger term a community of practice (1991).

I found that a sense of belonging could be endorsed through affirmation of one's role in a collective. At one time I was an Art Technician in a rural high school, where I experienced full acceptance into a community. Despite my evident multi-membership, our shared interests and purpose provided a feeling of belonging. As put my Lawthom and Whelan (2012: 15),

> "A group of people attains community status when there are adequate numbers of sufficient connections between them which enables them to organise for a common purpose".

During this time, various facets of my artistic and academic identities were at play informing the various tasks I was required to undertake. Positioned within a department of artist-turned-teachers, I learnt how they continued to nourish their artistry while fulfilling their academic roles, finding a balance to avoid conflict. The complex nature of this is explored in Hickman (2010) who also exercises reflexivity to examine how the various identities inform one another. Within the workplace, each teacher maintained a skillset. For the duration, I shape-shifted between disciplines, making use of prior knowledge and opportunities for learning.

I bought supplementary skillsets to the department, like mounting and frame making. Upon seeing their artwork presented around the school, a sense of pride was activated in the students. This brought about opportunities to build bridges between individuals and their environment; recontextualising the students' artwork modified the

meanings they had associated with their learning and the discipline.

The following year I pursued a Postgraduate Certificate in Higher Education with a focus on art, design, architecture and media. It was then that I discovered a way to bridge the two worlds that I had been so deeply involved in – art and education. I attended a class of very accomplished artist-turned-students, amongst whom I acquired a series of teaching capabilities.

Teacher / Student / Mediator

Throughout my career trajectory I have oscillated between the roles of teacher, student, and mediator. The mediator can be thought to be translating, transporting or transforming information between giver and receiver (Luzón, 2013). This betweenness of roles and contexts, has led to adopting a flexibility that inspires me to recontextualise knowledge to enhance encounters for unfamiliar audiences and domains, a technique much explored by Dowling (2009).

In 2021, I was appointed Graduate Teaching Assistant in a world-leading Faculty of Education based in the UK. The engaging and multifarious nature of the role is evidenced through the various modules and tasks I encounter, from teaching, tutorials and providing feedback on assignments, to capturing the knowledge produced and disseminated during taught sessions on posters and mood-boards. This experience has prompted me to develop my capabilities in facilitating online and blended learning. My performance in this role is

informed greatly by my prior experience in the arts, as are my capabilities as a research student.

The practices of Art and Education both explore language use and how meaning is made concrete, requiring the reviewer to analyse, synthesise, interpret, attribute, and validate quality. When we take learning material as a sign (Saussure, 1959), a compound formed of a literal tangible substance (signifier) and subject matter (signified), it becomes clear that the connection between meaning and materiality is volatile, unfixed. As Dewey (1934: 209) contends, "[w]ords are symbols which represent objects and actions in the sense of standing in for them". He goes on to state that "[e]ach medium says something that cannot be uttered as well or as completely in any other tongue" (ibid: 211), reaffirming the manifold layers of understanding that can be exposed through analysis of dynamic sources. As relics are examined, it is worth noting that "…the way we see things is affected by what we know or what we believe" (Berger, 1972: 8), much of which is informed by the spaces we occupy and the communities we identify with.

To communicate knowledge, I often mediate through visualisation; this means deconstructing complex matter into manageable parts. In my teaching, I have addressed research design through four 'straightforward' questions – *What, Why, How*, and *Where?* I have since illustrated this process in the form of a Ferris Wheel, a tool I have used in my own research. Each question is positioned in place of a passenger car, demonstrating how the information corresponding with

the three questions in the air can help to answer the question positioned on the ground. The structure of the wheel highlights the connections between the different elements, and how they can inform one another. While the Ferris Wheel begins its cycle containing only four parts, as it turns, questions are revisited, considerations enter and depart, much like fairground passengers stepping on and off the ride. I have found that popularising terms or concepts can help to make esoteric language more accessible, creating what Turnbull (1996) calls a knowledge space, the use of visual metaphors can bridge the chasm between abilities and understandings.

I have visualised the GTA's role and their function within communities of practice; firstly, as **the string between two paper cups** - receiving information from heterogeneous communities. Multi-membership can encourage a flexible and inclusive practice, which has inspired me to hone my capabilities in differentiation and personalisation. Another example is **a pylon** transmitting methods and conventions between communities and contexts. A likeness can be drawn between the ways that teachers and curators determine the involvement of their participants, for instance by capturing and releasing situated knowledge during immersive experiences.

Over the duration of my role as GTA, I have observed the effective use of creative methods within academic research. Continued multi-membership enables me to inform the

communities that I support through recontextualization and transportation of matter across boundaries.

Discussion

Within this article I have considered the knowledge and skills acquired throughout my career trajectory, and the possibility for their applicability within the role of GTA. Through an autobiographical method, I have explored the various roles and interactions that have informed my identity today.

This method is the first recommendation I propose for those undertaking a transdisciplinary practice. Autobiography affords reflection and interrogation of former experience through dismantling narrative, enabling recognition of key encounters that have informed perceptions of self, space, and practice. With the knowledge I have today, I have expanded on the meanings I once assigned to the stages of my life. Autobiography is a recognised method employed by professionals to explore various encounters; through which they can reformulate the narrative, giving meaning and reason to their actions, whilst considering alternatives and revisions. The GTA may find value in this method as they ponder the many flexible roles they undertake, discovering hidden relevance in the practices, or connections between disciplines.

Further to this, a wealth of seemingly context-specific knowledge and skill was acquired throughout my time practicing in the arts. Creative research methods may

facilitate individuals in portraying their multiplicity of perspectives. To enable acquisition, documentation and transformation of matter I suggest the use of audio devices and podcasts; collage to collate visual representations; diaries and blogs for data collection and reflective practice; and imagery or digital storytelling to gather honest depictions of matter using accessible language. These suggestions are not exhaustive nor limited to the creative arts; this is discussed in more depth in Hickman's (2010) reflection of the artist-turned-teacher and 'studio thinking'.

Often, the GTA is not a trainee nor trained teacher, nevertheless they have a wealth of expertise at their disposal. Their preparedness to teach may vary, but their approach to disseminating knowledge through learned behaviours or techniques can be a welcomed contrast. This contrast may stem from the concoction of qualities that they have in common with both the students and teachers (Kendall & Schussler, 2012). Familiarity with role behaviours and values issues the GTA with opportunity to develop a more inclusive and humanistic approach. Responses to this practice have the potential to foster the confidence of the GTA, temporarily securing them in a more clearly defined role.

Acclimatising to the academic community, required merging my teaching and learning capabilities to form a hybrid or liminal participator. In this space, I discovered that the opportunities to work also presented opportunities to learn (Hodkinson and Hodkinson, 2003). While my role is not

always clear-cut, existing within the betweenness with linkages to different communities of practice, allows for the accumulation of diverse skills and knowledge that allow me to participate in manifold roles as I gradually refine the direction of my academic career (Winstone & Moore, 2017).

References

Allan, J. (2008) *Rethinking Inclusive Education: The Philosophers of Difference in Practice*. The Netherlands: Springer.

Azzopardi, A. (2012) 'Spaces for Inclusive Communities' in Azzopardi, A. and Grech, S. (eds) *Inclusive Communities*. Rotterdam / Boston / Taipei: Sense Publishers.

Banks, M. (2011) *Visual Methods in Social Research*. London: SAGE Publications, Ltd.

Berger, J. (1972) *Ways of Seeing*. London: British Broadcasting Corp. and Penguin Books.

Broudy, S.H. (1987) *The role of imagery in learning*. The Getty Centre for Education in the Arts.

Bruss, K.V. & Kopala, M. (1993) 'Graduate school training in psychology: Its impact upon the development of professional identity.', *Psychotherapy: Theory, Research, Practice, Training*, 30, pp. 685–691.

Clements, P. (1999) 'Autobiographical Research and the Emergence of the Fictive Voice', *Cambridge Journal of Education*, 29(1), pp. 21–32. doi:10.1080/0305764990290103.

Coman, A. (2016) 'Organizational Culture in Higher Education: Learning from the Best', *European Journal of Social Sciences Education and Research*, 3(1), pp. 135–145.

Compton, M. & Tran, D., 2017. Liminal space or in limbo? Post Graduate Researchers and their personal pie charts of identity. *Compass: Journal of Learning and Teaching*, 10(3).

Cutcher, A. (2015) *Displacement, Identity and Belonging: An Arts-Based, Auto/Biographical Portrayal of Ethnicity and Experience*. Sense Publishers.

Dewey, J. (1934) *Art as Experience*. London: Allen & Unwin.

Dewey, J. (1987) 'My Pedagogic Creed', *School Journal*, 54, pp. 77–80.

Dowling, P. (2009) *Sociology as Method*. Rotterdam: Sense Publishers.

Furnham, A. & Gunter, B. (1993) *Corporate Assessment: Auditing a Comapny's Personality*. London: Routledge.

Goodman, N. (1972) *Problems and projects*. The Bobbs-Merrill Company.

Gravett, K. & Ajjawi, R. (2021) 'Belonging as situated practice', *Studies in Higher Education* [Preprint]. doi:10.1080/03075079.2021.1894118.

Gruenewald, D.A. (2003) ‘Foundations of place: A multidisciplinary framework for place-conscious education’, *American Educational Research Journal*, 40(3), pp. 619–654.

Hakanurmi, S., Palonen, T. & Murtonen, M. (2021) ‘Digital Stories Representing Agency Enhancement at Work’, *Adult Education Quarterly*, 71(3), pp. 251–271. doi:10.1177/0741713621989990.

Haley, D. (2008) ‘Psychosocial understanding and arts for health’. *British Psychological Society Seminar*, Manchester Metropolitan University.

Hickman, R. (2010) ‘Self Portrait - An Account of the Artist as Educator’, *International Journal of Education & the Arts*, 11(2).

Hodkinson, P. & Hodkinson, H. (2003) ‘Individuals, Communities of Practice and the Policy Context: school teachers’ learning in their workplace’, *Studies in Continuing Education*, 25(1).

Hooper-Greenhill, E. (2000) ‘Changing Values in the Art Museum: rethinking communication and learning’, *International Journal of Heritage Studies*, 6(1), pp. 9–31.

Ibarra, H. (2003) *Working Identity*. Boston: Harvard Business School Press.

Kendall, K. D., & Schussler, E. E. (2012). Does instructor type matter? Undergraduate student perception of graduate teaching assistants and professors. *CBE Life Sciences Education, 11*, 187–199.

Kokkos, A. (2021) *Exploring Art for Perspective Transformation*. Boston: BRILL SENSE.

Kraus, W. (2006) 'The narrative negotiation of identity and belonging', *Narrative Inquiry*, 16(1), pp. 103–111.

Lave, J. & Wenger, E. (1991) *Situated learning: Legitimate peripheral participation*. Cambridge, England: Cambridge University Press.

Lawthom, R. & Whelan, P. (2012) 'Understanding Communities', in Azzopardi, A. and Grech, S. (eds) *Inclusive Communities*. Rotterdam / Boston / Taipei: Sense Publishers.

Leighton, H. (2020) 'Mindscapes and Landscapes: Rendering (of) Self through a Body of Work', in Lyle, E. (ed.) *Identity Landscapes*. Boston: BRILL SENSE, pp. 197–209.

Lewis-Beck, M.S., Bryman, A. & Liao, T.F. (2011) 'Autobiography', in *The SAGE Encyclopedia of Social Science Research Methods*. Thousand Oaks: SAGE Publications, Inc., p. 46.

Lund, K.A. (1993) *Transition from artist to artist teacher: A case study of graduate student studio teaching*. Master of Arts. The University of Arizona.

Luzón, M. (2013) 'Public Communication of Science in Blogs', *Written Communication*, 30(4), pp. 428–457.

Lyle, E. (2020) 'Contemplating How the Places We Dwell, Dwell in Us', in Lyle, E. (ed.) *Identity Landscapes*. Boston: BRILL SENSE, pp. 1–13.

Menna Barreto Abrahão, M.H. (2012) 'Autobiographical research: Memory, time and narratives in the first person', *European Journal for Research on the Education and Learning of Adults*, 3(1), pp. 29–41.

Mahani, S. (2020) 'In Search of Myself', in Lyle, E. (ed.) *Identity Landscapes*. Boston: BRILL SENSE, pp. 94–102.

Markides, J. & Markides, D. (2020) 'The Conversation We Never Had: Shared Autobiography in Relation to Place and Each Other', in Lyle, E. (ed.) *Identity Landscapes*. Boston: BRILL SENSE, pp. 114–123.

McLean, N. (2012) 'Researching Academic Identity: Using Discursive Psychology as an Approach', *International Journal for Academic Development*, 17(2), pp. 97–108.

Mezirow, J. (1991) *Transformative dimensions of adult learning*. San Francisco: Jossey-Bass.

Mittelmeier, J., Rienties, B., Yue Zhang, K., & Jindal-Snape, D. (2021) 'Using diaries in mixed methods designs: Lessons from a cross-institutional research project on doctoral students' social transition experiences', in Cao, X. and Henderson, E.F. (eds) *Exploring diary methods in higher education research*. Routledge, pp. 15–28.

Parsons, M. (2010) 'Interpreting Art through Metaphors', *International Journal of Art & Design Education*, 29(3), pp. 228–235.

Partin, C.M. (2018) *Investigating Transformation: An Exploratory Study of Perceptions and Lived Experiences of Graduate Teaching Assistants*. Doctor of Philosophy. University of South Florida.

Saussure, F. (1959) *Course in General Linguistics*. New York: Philosophical Library.

Schlamb, C. (2020) 'Living In-between: A Narrative Inquiry Self-Study into (Re)locating Place and Self', in Lyle, E. (ed.) *Identity Landscapes*. Boston: BRILL SENSE, pp. 162–173.

Stryker, S., & Burke, P. J. (2000). The past, present, and future of an identity theory. *Social Psychology Quarterly, 63*, 284–297.

Thornton, A. (2005) 'The Artist Teacher as Reflective Practitioner', *International Journal of Art & Design Education*, 24, pp. 166–174. doi:10.1111/j.1476-8070.2005.00437.x.

Trofanenko, B. & Segall, A. (2014) 'Introduction: The Museum as a Space of Pedagogical Ambiguity.', in *Beyond pedagogy: Reconsidering the public purpose of museums*, pp. 1–9.

Turnbull, D. (1996) 'Cartography and science in early modern Europe: Mapping the construction of knowledge spaces', *Imago Mundi*, 48(1), pp. 5–24.

Turner, V. (1974). *Dramas, fields and metaphors: Symbolic action in human society*. Ithaca, NY: Cornell University Press.

Wenger, E. (1998) *Communities of practice*. Cambridge, England: Cambridge University Press.

Winstone, N. & Moore, D. (2017) Sometimes fish, sometimes fowl? Liminality, identity work and identity malleability in graduate teaching assistants*, Innovations in Education and Teaching International*, 54:5, 494-502, DOI: 10.1080/14703297.2016.1194769

Book Review: *Introduction to University Teaching* by Richard Bale and Mary Seabrook

Steve Hoey, University of Hull

Chang Liu, University of Newcastle

The Postgraduate Pedagogies *editorial team were invited to review this new guide to teaching and learning in Higher Education (HE), which is aimed specifically at early career academics, Graduate Teaching Assistants (GTAs), and postgraduate and postdoctoral researchers. In line with the journal's aim to offer GTAs a first occasion to publish their reflections on their teaching practice, we saw this too as an excellent opportunity for GTAs to explore the literature around teaching and learning, and to gain experience of academic book reviewing.*

We invited interested reviewers to contact us and were delighted that two GTAs with very different backgrounds and experiences expressed their interest in the task. They agreed to write the review as a collaborative 'conversation piece', focusing on how the book is relevant to them in their roles as GTAs and how others in their position might also find it of interest.

Introduction

Chang Liu (CL): I am a postgraduate researcher at Newcastle University, researching second language writing and critical thinking. I have three years of teaching experience at a Chinese university and two years of teaching experience here at Newcastle. I put myself forward as a book reviewer to participate in a conversation of literary criticism, which is an excellent way to gain early publishing experience and different to my experience of other academic and report writing. Reviewing this book allowed me to critically evaluate how learning theories can support the development of my teaching practice and develop inclusive teaching practice to better satisfy students' learning needs.

Steve Hoey (SH): I recently started a doctorate at the University of Hull researching solutions to school exclusion. I have 18 years' experience of teaching in secondary schools. For me, reviewing the book was an opportunity to find out more about teaching and learning in HE and a fantastic opportunity for my own professional development.

Tell us about the book.

CL & SH: It contains everything you need to know about teaching and learning in UK universities. Not only is it a great introduction to those just starting their teaching careers in HE, but also a comprehensive professional development book. It provides readers with insights into the essential elements to

consider at the planning stage of teaching, and ideas on how to make teaching and learning effective in specific contexts (for example, large group teaching in lectures, small groups teaching, laboratories, project supervision).

It also introduces learning theories which encourage you to conceptualise what, how and why to teach. Aspects of teaching design are also discussed in this book, which is helpful to critically evaluate your lesson plans. The book emphasises the importance of inclusive teaching practice and the use of different digital technologies to facilitate interaction in supporting learning and teaching. While the impact of the COVID-19 pandemic on using digital technologies in education is unquestionable, teachers still need guidance on how to effectively use digital technologies to promote authentic collaboration and interaction in the classroom. This book introduces a range of hands-on activities to integrate digital technologies into teaching practice.

Reflecting on the book overall, do you think it will be relevant to you as an early career HE teacher?

SH: Very much so. I have many years' experience of teaching in secondary schools but teaching in HE is very different because there is a higher degree of flexibility and more opportunity to really explore issues and challenge student thinking. The book is packed with relevant information and each chapter offers the opportunity for real learning. Teaching

is not easy work, and this books really makes you think about the what, why, when, who, where and the how.

It also focuses on professional development and makes clear reference to Advance HE and the UK Professional Standards Framework (UKPSF): what the organisation does, how to evidence and map your practice against the UKPSF, and how applying for an Advance HE fellowship (a professional recognition of an individual's commitment to professionalism in learning and teaching in HE), will benefit your career. This was excellent especially because many people new to HE will not have come across this before.

I also appreciated just how relevant and up to date the information was especially considering the impact of COVID-19. For example, Chapter 8 on digital technologies made me think about the bigger picture whilst focusing on the finer practical details and offered excellent advice throughout.

CL: As someone relatively new to teaching and supporting learning in UK higher education, I was greatly inspired when reading this book. I am going to apply for Advance HE Associate Fellowship, and the book is very helpful in showing how my practice aligns with the UKPSF: all chapters are mapped against the UKPSF dimensions. In addition, the learning theories introduced in this book helped me to conceptualise how I teach and how my students learn. This will give me confidence that my ways of teaching are grounded in

theory, which could be helpful for me to reflect on additional academic and professional development needs.

I recommended this book to my colleagues who have less teaching experience and are also applying for Associate Fellowship. They also gave positive feedback on the book, commenting that it is very helpful for them to evidence and reflect on their teaching practice and gain fellowship.

What was one thing that stood out to you?

CL: The case studies in this book stood out to me, for two reasons. Firstly, these case studies help to illustrate the points made in the chapters, which makes the abstract theoretical perspectives accessible and help me to critically consider how knowledge of theory underpins aspects of my teaching practice. For example, in chapter 2, case study 2.2 provides examples of how to 'scaffold' students' learning using seminar planning sheets. Secondly, these case studies are concrete examples of reflective writing from successful Advance HE fellowship applications, which are very helpful for those who, like me, are drafting Associate Fellowship applications.

SH: I really liked the overall structure of the book with clear chapters that incorporated a range of engaging activities and points for reflection. This made it easily accessible and user-friendly.

Each chapter had three clear learning outcomes which indicated what you should be able to do after reading the chapter. These gave real focus to each chapter and made it seem simple, yet each chapter was full of excellent information and interactive tasks. The opportunities for reflection involved deep work. In chapter 9 the reflection task where you had to consider your own experiences really made you stop and think about 'you' and 'your why'. Making you consider the same questions from the student's perspective provoked real empathy.

Each chapter had a discussion section, which included relevant scenarios and case studies, making each chapter relevant and thought provoking. In chapter 10, the case studies gave some great suggestions about assessment and feedback. For example, case study 10.1 highlights the importance of interaction when providing feedback in small groups and case study 10.2 is about effective written feedback. The 'over to you' section at the end of each chapter aids self-reflection and more importantly, action.

Is there anything in the book that you might implement in your own teaching?

SH: In every chapter there was so much that you could implement and narrowing it down to one thing is very difficult. I think that the way each chapter prompted you to think and reflect was my key takeaway. For example, in chapter 12 there

was some excellent advice on evaluation strategies and how to use student feedback to develop your teaching further. Chapter 7 also gives lots of ideas on working with individual students and supervising student projects. Developing these professional relationships with students is crucial and the references to mentoring and coaching skills and the potential challenges is excellent. The case studies in this chapter add real experience and the activities an opportunity to reflect. For example, the proposed activity using the GROW coaching model (Goals Reality Options Will) to plan a one-to-one session is excellent.

CL: I will implement the storyboard template (chapter 8, Figure 8.1) to plan and design a sequence of online learning. The storyboard is a very useful tool because it helps to make online learning active and engaging. It focuses on the design of activities, allowing teachers to visually represent how students will progress through the course and providing more opportunities for students to engage actively. This serves to ensure that students are active participants in the course rather than passive recipients of online content.

Is there anything that you thought was missing or would have liked the authors to explore further?

CL: It would be great if the authors could provide advice on how to link sustainability to employability as a key skill set students need in the rapidly changing sectors in which they will graduate. Sustainability in education is the process of

meeting our students' needs without compromising the ability of future generations and can be introduced through the implementation of a combination of teaching practices. For example, Education for Sustainable Development could be embedded in our curriculum through creative collaborations between academic teams and professional service teams.

SH: Something I would have found useful is how to manage professional relationships with other colleagues. How to network, build trust and become a valued member of staff. Navigating this can be tricky especially when you are new to a department.

Do you know of any similar books or guides to teaching in HE? How does this compare?

CL: I have read two books about teaching in HE, namely, *'Better Teaching, More Learning: Strategies for Success in Postsecondary Settings' by* James R. Davis and *'Cooperative Learning for Higher Education* Faculty' Barbara J. Millis and Philip G. Jr. Cottell which were published in 1993 and 1997 respectively. Although both books provide guidance about creating cooperative learning communities within classrooms and enhancing instructors' performance in their teaching practice, these two books are out-of-date. In contrast, this book provides up-to-date and practical case studies, also explaining how various digital technologies can be incorporated into both face-to-face and online teaching. This has encouraged me to reflect on how to effectively use

different digital technologies and resources in a blended learning format to enhance interaction.

SH: I have recently completed a course called 'Passport to University Teaching' at my university and I found this book a really great companion to the course. There is some guidance and advice on teaching available on social media too, but this book is a brilliant one stop guide to everything that I need to know. It is up to date and full of relevant information.

Finally, how would you summarise the book for another reader?

SH: With excellent academic references, clear figures, and links to further resources, each chapter offers a very comprehensive overview.

The book is perfect for both those new to teaching and those wanting to use it for professional development. There really is something for everyone and many of the activities could certainly be used for professional dialogue with a range of staff involved in HE.

CL: Overall, this book provides engaging, accessible and interactive resources about the key aspects of teaching and learning practices. It offers an insightful overview about UK HE and allows the reader to really reflect on their identity in teaching.

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Campbell is a Researcher and Artist, pursuing a PhD within the department of Education, Practice and Society at the IOE, UCL's Faculty of Education and Society, London. Prior to this, she completed an MA in Education (UCL IOE, 2020), a PGCHE in Art, Design, Architecture and Media (2019) and an MA in Fine Art (2014) both from Norwich University of the Arts. Campbell's current research explores the returning adult learners' transition to higher education – guided by scholarship on change and transition, and social identity theory.

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Returning to education in 2015 as a mature student Trish graduated with a degree in Social, Political and Community Studies from Carlow College, St Patricks, Ireland in 2020. She has just completed a two year Masters by Research in SETU (formerly ITCarlow) in Healthcare Design for Older People and hopes to further her career in research particularly in the area of co-designing person-centred, integrated healthcare delivery.

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Douglas is a PhD student researching the application of formal methods towards the assurance and resilience of digital twins of critical systems. He is currently exploring the use of model checking tools to analyse the performance of internet of things protocols within the context of a digital twin. He has taught a number of courses as a GTA within the department, with a strong passion for teaching algorithms and introducing new students to programming.

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George is employed as a mathematics lecturer at the Cape Penisula University of Technology (CPUT) in South Africa since 2018 and has 20 years of high school teaching experience. He completed his PhD in 2021 and specialises in mathematics and science education and is responsible for STEM student support at the CPUT. His research focus is on the enhancement of teaching assistance methodology in mathematics and science for an undergraduate student.

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Anna's research looks at how Latin America contributed to global human rights during the Cold War, particularly through exile and solidarity networks. More broadly, her work contributes to understanding the construction of ideas, practices, and norms surrounding human rights and development by actors of the Global South. Her current research focuses on visual and cultural artefacts produced as part of the Cuban political movement of the Tricontinental.

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Kay is Head of Research Culture and Researcher Development at the University of Glasgow, and has specialisms and research interests in mentoring, research supervisor development and research community building – anything that revolves around the learning that takes place through dialogue. In 2018 she was awarded a National

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Leo Havemann

Leo Havemann is a Programme Development Advisor in the Arena Centre for Research-Based Education at UCL, as well as a doctoral researcher at the Open University. With many years' experience supporting digital education as well as working in libraries, HE teaching and industry, Leo now supports UCL teams in the design and development of new programmes and modules. In addition, his research and practice focuses on the use of open and digital approaches in learning and teaching, and particularly currently the ways in which institutional policy and support environments set agendas and shape the contours of the possible.

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Steve is father to four, fabulous daughters – that's the most important bit! He has been a teacher for 18 years working in secondary schools in Northamptonshire, Hull and North Lincolnshire. Steve has experienced all aspects of school leadership and is a great advocate for innovation and fun.

He is a leadership coach for National Professional Qualification courses and a Mental Health First Aid Instructor. He has recently set up a social enterprise called the Inclusion Bridge working with disengaged young people in schools.

He has just started his PhD at the University of Hull researching solutions to school exclusions.

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Ethan Hunter

Ethan is a PhD student working in the intersection between Computing Science, Maths and Biology. His current work focuses on exact representations of models of infectious disease, using systems of differential equations solvable for any set of initial conditions. He is interested in introducing features of agency into these models and understanding how this changes strategies to control disease spread. He has

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Uday Hasmukh Kalyani

Uday Kalyani has worked in the mechanical engineering industry for 7 years and is currently a research assistant at South East Technological University. He resides basically from India, currently resides in Carlow, Ireland with his wife Arpita and baby girl Prisha.

Uday is looking to develop a career in teaching and be able to learn and share knowledge.

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William is a Games Technology and Mathematics lecturer at Abertay University. William's research focuses on game balancing, numeric system design and synthetic player data generation. Alongside this William is interested in pedagogical research and modern lecturing practice, including effective hybridised teaching.

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Thomas Lowe

Thomas Lowe is a PhD researcher in the Population Research Centre at the University of Groningen, the Netherlands. He conducts his research within the Meaningful Mobility research project (https://www.rug.nl/research/ursi/prc/meaningfulmobility/), which focuses on the mobility practices of older adults in the United Kingdom, the Netherlands and India. His research primarily focuses on the mobility experiences of older adults, most recently concerned with the mobility experiences of informal dementia carers. Thomas has a Bachelor degree in geography with international study from the University of Manchester and a Master degree in International Development Studies from Utrecht University. As a human geographer, his research interests are broadly concerned with vulnerable populations, empowerment, inequalities, creative methods and well-being.

Chang Liu

Chang is a PhD candidate at Newcastle University, researching second language writing and critical thinking. Prior to studying her PhD at Newcastle, she taught English as a foreign language (EFL) at a Chinese university in China for three years and worked on cooperative projects with Edinburgh Napier University. She has been undertaking the role of teaching assistant, postgraduate ambassador, and exam invigilator at Newcastle University. She enjoys reflecting on teaching and

thinking about thinking, ideally when fuelled with scone and flat white coffee.

Gethin Norman
Gethin Norman is a Senior Lecturer in the School of Computing Science at the University of Glasgow and a Senior Research Fellow in the Department of Computer Science at the University of Oxford. The focus of his research is on the theoretical underpinning of quantitative formal methods, particularly models and algorithms. He is a key contributor to the probabilistic verification tool PRISM. He is a member of the steering committee for the International Conference on Quantitative Evaluation of Systems and regularly serves on the programme committees of many well-known international verification conferences.

Barry O'Sullivan
Barry O'Sullivan is a President's Research Fellowship Scholarship recipient in the Department of Sport, Media and Marketing in the South East Technological University (SETU). His work centres on contemporary Sports Management issues in Irish sporting organisations, with a particular emphasis on football clubs. His current research focuses on sport and environmental sustainability. He has recently contributed to an international industry report examining environmental, social, and governance (ESG) performance across professional men's and women's football leagues. In addition, Barry is an associate lecturer in the Department of Sport, Media and Marketing in SETU.

Alexandrina Pancheva

Alexandrina (Alex) is a PhD candidate at the University of Glasgow. Her research focuses on the development of machine learning techniques to facilitate analysis of complex datasets, particularly in the field of single cell RNA-sequencing (scRNA-seq). Her recent works is based on topic modelling approaches for understanding cellular crosstalk and process dynamic in scRNA-seq. Alex is passionate about teaching and in addition to her GTA responsibilities within the School of Computing Science, she regularly volunteers with Computing Science Academy Africa (CSAA), an initiative that aims to empower African undergraduate and postgraduates in the STEM field with programming skills.

Jack Parkinson

Jack Parkinson is a PhD student in the Centre for Computing Science Education in the School of Computing Science at the University of Glasgow. His research examines the relationship between cognitive skills exposed by spatial ability and computing achievement, investigating using cognitive training to improve computing outcomes for students. He has contributed to other research projects which have impacted entry-level computing education at the University, including one of Scotland's first ever Graduate/Degree Apprenticeships in Software Engineering. His path into education research is rooted in GTA work, which he began during his undergrad and has been involved in since.

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Anastasia Patsiarika is a PhD student at the Wolfson Institute for Biomedical Research, UCL. Her research focuses on cancer immunotherapy. She has a Master's Degree in Drug Design and a Degree in Pharmacy. In parallel to her research, she is a teaching assistant at the Division of Medicine, UCL, a job that qualified her as an Associate Fellow of the Higher Education Academy. As an editor for the Postgraduate Pedagogies Journal she strives to support teaching assistants and showcase their importance in higher education.

Iulia Paun

Iulia Paun has recently graduated with a PhD in Computing Science from the University of Glasgow. Her work investigated how to model the efficiency of Collaborative Filtering-based (CF) recommendation systems, with a particular focus on how computational resources are used during the training phase of the CF models. Iulia has also taught several courses as a GTA, such as databases, networks and operating systems, and various programming languages.

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Muireann Ranta is a PhD candidate with socialCORE. Her areas of interest are Nature as a learning environment and children's rights. Having completed a child rights-based participatory research study with young children, entitled 'Can we see our voices?' Muireann is now writing her next iteration. 'How can we see your voices'? is a participatory research action (PAR) project that collaborates with early

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Shane Ryan is a research Masters student at the South East Technological University in Ireland. Shane completed a bachelor's degree in Strength and Conditioning from the Institute of Technology Carlow. His focus is in the field of advanced resistance training for elite sports performance. His current research interests include iso-inertial flywheel resistance training to enhance explosive activity such as sprint speed, jump height and change of direction ability in field sport athletes.

Ekaterina Rzyankina

Rzyankina is a PhD candidate in the field of Engineering Education at the University of Cape Town. Her research interest is digital literacy practices for reading engineering (professional text) and interaction with digital text. She is a certified trainer with ATLAS.ti and she runs qualitative workshops with ATLAS.ti for various universities in South Africa.

M. Sudhir Selvaraj

Sudhir is currently a lecturer in Project Planning and Management at the Department of Peace Studies and International Development. His research focuses on violence against religious minorities in India. In his teaching, Sudhir is very keen to incorporate creative practices. He is also a playwright who focuses on conflicts in South Asia.

Roberta Spelorzi

Roberta Spelorzi is a PhD Researcher in Linguistics and English Language at the University of Edinburgh. Her research investigates adult bilingualism across the lifespan in different populations (i.e., attriters, language learners and heritage speakers) through a psycholinguistic approach. Following her postgraduate degree in Education, Roberta has promoted a multilingual approach in language teaching at different levels, including Higher Education. Roberta is Associate Fellow of the Higher Education Academy (AFHEA), and she is currently completing a PGCert in Academic Practice (Higher Education). As a Bilingualism Matters member, she is involved with public engagement, delivering workshops and events for families and teachers.

Tom Wallis

Tom is a PhD candidate at the University of Glasgow. Tom specialises in software engineering and is researching the modelling and simulation of socio-technical systems at scale.

Tom teaches Systems Programming and Advanced Professional Software Engineering to apprentice software engineers and has developed Python libraries for metaprogramming and aspect orientation. Tom's other research interests include simulation and education.

Emma Wilson

Emma Wilson is an ESRC-funded LISS DTP student at the Centre for Society and Mental Health, King's College London. Her PhD looks at the association between bullying victimisation and self-harm in young people. Additionally, her work looks at the role of coping strategies and gender. Emma is working with data from the Risk, Ethnicity, and AdolesCent Mental Health (REACH) study, an accelerated cohort study of ~4,000 adolescents from 12 South London schools. She is also a Graduate Teaching Assistant for the BSc Psychology department.

Mattia Zingaretti

Mattia Zingaretti is a PhD Researcher in Linguistics and English Language at the University of Edinburgh. His PhD examines the changes that occur in bilingual speakers' first language (i.e., first language 'attrition') using psycholinguistic methods. His interests include language acquisition and attrition, the linguistic, cognitive and emotional impact of bilingualism, and the implications of bilingualism for language teaching and learning. As a passionate instructor

and Fellow of the Higher Education Academy (FHEA), he has taught courses in linguistics, language acquisition and bilingualism, and Italian language courses. Mattia also engages regularly with the wider public as an active member of Bilingualism Matters.

Cover Artwork Artist

Funa Ye

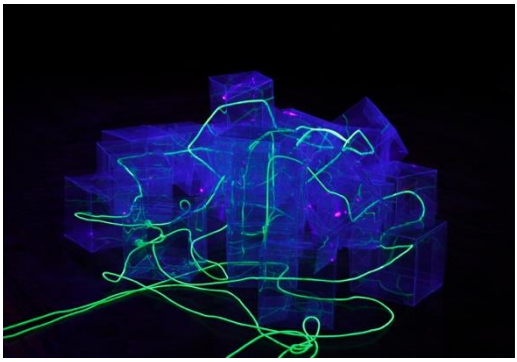
Funa Ye (born in 1986, in Kunming, China) is an artist and researcher based in London and Beijing. She currently doing a Ph.D. at Slade School of fine art and teaching Experimental art at the Central Academy of Fine Arts, China.

Funa's practice is mainly concerned with the relationship between the realities of everyday life, the perceived connection between authority and many areas of social life such as different power structures, ethnic groups, and the fictional space of propaganda for the concept of 'perfection' in an ideological system, and utopian landscape. The work of Funa is rich in reference, parody, and irony of the uniform cultures. Recently She is organizing some internet-based participatory, crowd-sourcing projects, such as Exhibitionist: Curated Nail and Peep Stream. She is using internet to work with people, questioning how the art system may be incorporated into our private lives and social activities.

www.funaye.com / Instagram: @oyester

Cover Artwork Runners-Up

Wanshu Li



Wanshu Li is a PhD researcher in the School of Jewellery at Birmingham City University. Her practice-based research project explores the use of light and light-reactive materials in jewellery and expands the methodological approach of performance art to the field of contemporary jewellery. Her research investigates how the sensory experience of wearing and viewing jewellery can be visually and physically enriched with the employment of light and light-reactive materials, extending the boundary of jewellery as a multidisciplinary subject. As a jeweller, Wanshu's artwork has obtained several national and international awards, including the winner of the 2017 JOYA Barcelona Award, the winner of the 2020 Gold Award, and Fashion Led Conceptual Jewellery by the Goldsmiths' Craft & Design Council. The major jewellery exhibitions she participated in include SOFA Chicago, New York Jewellery Week, JOYA Barcelona Art Jewellery & Objects Fair, Dazzle Exhibition London, etc.

www.liwanshu.co

Cover Artwork Runners-Up

Artemi Tonikidou

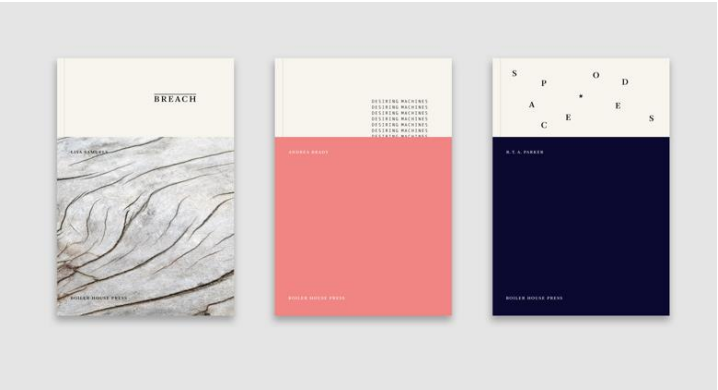
Artemi Tonikidou is a part-time researcher in Retail and Marketing at Loughborough University. From a young age she always had a high interest in fine arts. Photography is one of her passions as photos are reports of things that run before our eyes and their presentation is a pursuit of aesthetics.

arttonik.wixsite.com/run-before-our-eyes

a.tonikidou@lboro.ac.uk

Cover Artwork Judges

Emily Benton



Emily Benton Book Design is an independent design studio engaging creatively in page layout, cover design, and print-production management.
Emily studied at the world-renowned Department of Typography at Reading, going on to work with artists Antony Gormley, Ragnar Kjartansson and Helen Marten on exhibition catalogues and artists books. She has worked with the Barbican, The Landmark Trust, Sainsbury Centre for Visual Arts, MIT and Edinburgh University Press.
Her publication designs have been shortlisted for both the Saltire Society's 'Book Cover of the Year Award' and the Book Design and Production Awards. Emily is a design mentor and visiting lecturer at UEA and Norwich University of the Arts.

www.emilybentonbookdesigner.co.uk

Cover Artwork Judges

Matthew Burrows MBE

Matthew Burrows MBE is a contemporary British painter and founder of Artist Support Pledge, a global movement in support of artists and makers. Matthew lives and works in the UK and is represented by Vigo Gallery London.

Shataph IV
Acrylic on burlap, 120 x 100 cm, 2021

Burrows speaks of painting as a form connection and subsistence, dependent on and arising from the ground at his feet. Through the layering of colour and line, Burrows creates images that invite mediation and a slow unravelling of space and experience. He speaks of his work as 'one of dwelling and ritual, a process of mythologizing, of drawing meaning from the particularities of the environment and his movement in and through it'. His work explores the conditions by which we thrive and connect - individually, communally and cosmologically.

matthewburrows.org + www.artistsupportpledge.com

Cover Artwork Judges

Professor Susan Collins

Current, 5th October 2020 at 17-33pm

Susan Collins is an artist and Professor of Fine Art at the Slade School of Fine Art, UCL. She works in response to specific sites and situations often employing transmission, networking and time as primary materials.
Key works include BAFTA nominated *Tate in Space*, for Tate Online (2002); *Underglow* (2005-6), a network of illuminated drains for the Corporation of London, and *Brighter Later* (2013), a light installation for the Radcliffe Observatory, Oxford choreographed by live weather data.
Since 2002 she has investigated the relationship of time to place and landscape through an ongoing series of years-long pixel-by-pixel internet transmissions from remote locations.

www.susan-collins.net