



THE UNIVERSITY *of* EDINBURGH

Edinburgh Research Explorer

## Instructor autonomy and identity

### Citation for published version:

Tanner, S, Drummond, C, Alton, D, Axtova, K, Duggan, J & O'Rourke, G 2022, 'Instructor autonomy and identity: Navigating teaching & learning software adoption in third level business education', Paper presented at Irish Academy of Management Conference 2022, Dublin, Ireland, 24/08/22 - 25/08/22. <<https://iam2022.exordo.com/programme/presentation/99>>

### Link:

[Link to publication record in Edinburgh Research Explorer](#)

### Document Version:

Peer reviewed version

### General rights

Copyright for the publications made accessible via the Edinburgh Research Explorer is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

### Take down policy

The University of Edinburgh has made every reasonable effort to ensure that Edinburgh Research Explorer content complies with UK legislation. If you believe that the public display of this file breaches copyright please contact [openaccess@ed.ac.uk](mailto:openaccess@ed.ac.uk) providing details, and we will remove access to the work immediately and investigate your claim.



# **Instructor Autonomy and Identity: Navigating Teaching & Learning Software Adoption in Third Level Business Education**

**Dr Sean Tanner** (corresponding author)

Department of Management and Marketing, Cork University Business School, University  
College Cork, Ireland. Email: [sean.tanner@ucc.ie](mailto:sean.tanner@ucc.ie)

**Dr Conor Drummond**

Department of Management and Marketing, Cork University Business School, University  
College Cork Ireland.

**Dr Dave Alton**

Department of Management and Marketing, Cork University Business School, University  
College Cork, Ireland.

**Dr Kristina Auxtova**

University of Edinburgh Business School, University of Edinburgh, Scotland

**Dr James Duggan**

School of Business, Maynooth University, Ireland

**Ms Grace O'Rourke**

Greenwich Business School, University of Greenwich, London, United Kingdom

TRACK: EDUCATION, TEACHING AND LEARNING

## **Abstract**

**Purpose:** This is an exploratory study which aims to uncover the unforeseen consequences of technology adoption on instructor decision making, identity, and the impact of technology enabled learning (TEL) on psychological distance between instructors, students and higher-level institutes. The research addresses calls to reflect on lessons learned from HEI instructors' switch to online learning during Covid-19 which accelerated the adoption of teaching and learning technologies.

**Study Design:** A qualitative design is employed using semi-structured interviews. An initial pilot study is conducted comprising a total of 13 participants sampled from RoI and UK HEIs. Data analysis is conducted using thematic analysis and iterative peer debriefing.

**Findings:** This study provides valuable insights into the impact of institutional and IT infrastructural factors in facilitating instructor control in pedagogical decision making and software acceptance. Data suggest evidence of both increased psychological distance between educators and learners and identifies strategies employed by instructors to reduce perceived psychological distance between various stakeholders. The data provides insights into the relationship between TEL and instructor identity development.

**Research Limitations and Implications:** Research is conducted subsequent to software adoption. Future contemporaneous data collection would support understanding of emerging adoption considerations.

**Practical and Social implications:** Findings highlight the importance of both institutional and social factors in adoption of technology change. The research provides useful insights to guide future change, particularly in relation to digitally inclusive TEL.

**Originality/Value:** Adopting a multi-institutional approach this research seeks to complement a burgeoning body of post-Covid pedagogical research by addressing the under-researched area of instructor perceptions.

**Keywords:** technology-enabled learning, autonomy, psychological distance, higher education

## 1. Introduction

The pivot towards remote teaching and learning activities brought about in response to Covid-19 has rapidly accelerated instructor adoption of technology for teaching and learning purposes (Rodriguez-Segura *et al.*, 2020; Akram *et al.*, 2021; Kaqinari *et al.*, 2021). The incorporation of technology raises a number of issues such as instructor technological competency (Daniela *et al.*, 2018; Akram *et al.*, 2021), efficacy of technology enabled learning (TEL) in empowering the attainment of learning objectives (Venkateswaran, 2016), student satisfaction (Rodriguez-Segura *et al.*, 2020) and instructor/student acceptance (Vladova *et al.*, 2021).

The application of technology to learning in higher education is by no means novel, indeed as early as 2016, Bower (2016) identified 37 different categories of Web 2.0 technologies available on the market suitable for teaching and learning allowing for multimodal learning, idea creation and dissemination, file sharing, assessment, and collaboration. Certainly, most third level students now anticipate some elements of TEL as part of their teaching experiences, for example, with learning management systems (LMS) such as Blackboard, Canvas and Moodle. These LMS often act as the backbone of course units for delivery of material and assessment, primarily due to their ease of use in delivering content, increased accessibility and availability of learning material, and the reduction in financial and time constraints for students (Snoussi, 2019). Adoption of TEL more generally in higher education institutes (HEI) has been driven by various factors including the desire to support varied modes of learning, student engagement, automatization of teaching administration, and market factors stemming from LMS providers (Gregory and Lodge, 2015; Joseffson *et al.* 2018). However, the rapid and widespread adoption of technologies across all facets of teaching and delivery in response to remote learning necessitated by Covid-19 represented a marked departure from established teaching practices for many educators.

Notwithstanding the various pedagogic and institutional benefits of TEL which have been discussed at length within the literature (see, for example, Segers and Verhoeven, 2015; Shyr and Chen, 2018) TEL has also been criticised for presenting instructors and institutes with various challenges, often related to the complex and competing interests of various third-level stakeholders for example instructors, learners, institutional management and software providers (Goodchild and Speed, 2018). It has been previously argued that the adoption of TEL faces various silent costs and barriers including the impact on academic workloads and

academic identity (Gregory and Lodge, 2015). Indeed, while much of the literature makes reference to technology enhanced learning (Bayne, 2014; Kirkwood and Price, 2014), for many instructors the Covid-19 response shifted the emphasis from technology enhanced to technology mediated/enabled learning (Boyd, 2019), which adds further complexities to teaching and learning dynamics within HEIs. Intuitively the TEL literature is dominated by student facing considerations such as student learning (Broadbent and Poon, 2015), student satisfaction and the behavioural implications of TEL for learners (Manathunga and Hernández-Leo, 2015). Yet, recent reviews of TEL literature (Lai and Bower, 2020) suggest comparatively less consideration of the institutional and instructor consequences which TEL give rise to, despite the fundamental role that third level educators have in pedagogic decision-making, course design and content delivery.

As it relates to instructor decision-making one aspect of TEL which has garnered little attention is the impact of TEL on instructor autonomy. From an employee perspective, autonomy has been demonstrated to give rise to various positive outcomes such as work performance and organizational commitment (Dysvik and Kuvaas, 2013), creative work involvement (Volmer, Spurk and Niessen, 2012) and role breadth (Morgeson, Delaney-Klinger and Hemingway, 2005). Moreover, perceived autonomy and control in instructional decision-making has the potential to impact instructors' identity formation and resultant instructor-student interactions (Ahmad *et al.*, 2019). Despite this the impact of recent accelerated technology adoption and remote education on instructor's perception of autonomy and control in pedagogical decision-making has been scantily addressed.

A further aspect of TEL and pedagogic decision-making relates to the social dimension of teaching and learning activities. Teaching and learning activities in HEIs are typically associated with more than the transfer of knowledge but rather the development of skills and competencies (Gerstein and Friedman, 2016), allowing for critique and co-creation of understanding. In this regard the social dimension of learning environments can play an important role in facilitating learning (Resnick et al., 2015). Construal level theory posits that individuals have the capacity to think about various 'objects of thought' such as events, people, other's perspectives, counterfactual alternatives, occurrences in the past or future (Trope and Liberman, 2010). These construals represent an individuals' idiosyncratic mental representation/interpretation of these various objects of thought. Objects of thought that are psychologically distant are not in an individual's direct experience of reality (Liberman, Trope and Stephan, 2007). That is to say that an individual's experience of such objects of thought

are approximations of those objects and the ways through which objects of thought are distal can be construed in four different distance dimensions; temporal, spatial, social and hypotheticality (Liberman and Trope, 2014). Consequently, the notion of psychological distance is fundamentally ego centric, as ‘the self’ acts as the reference point upon which distance is determined. Instructor-student relationships by their nature are characterized by some psychological distance and as with any relationship the parties to the relationships differ on several characteristics, including their experiences (and respective knowledge of same), their power, their roles, and their understanding. This notwithstanding instructors can seek to adopt their students’ perspective utilizing various cues available to them in order to inform pedagogic decision-making.

As third-level instructors exit a largely reactionary stage of decision-making, this research aims to offer insights to inform reflections on not only the pedagogical but also broader instructor and institutional impact of TEL adoption in recent years. While issues regarding instructor autonomy have been previously considered (Škėrienė and Augustinienė, 2018; Wermke, Olason Rick and Salokangas, 2018; Salokangas, Wermke and Harvey, 2019), increased institutional reliance on TEL solutions in recent years raises questions regarding the long-term impact on teaching practice and pedagogical decision-making (Wermke, Olason Rick and Salokangas, 2018; Salokangas, Wermke and Harvey, 2019). Consequently, this research aims to uncover the unforeseen consequences of technology adoption on instructor decision making, identity, and the impact of TEL on psychological distance between instructors, students and higher-level institutes by answering the following questions:

1. How has TEL adoption necessitated by remote learning influenced pedagogic decision making?
2. Has TEL influenced psychological distance between HEI stakeholders?
3. How does TEL impact instructors' conceptualization of their educator identity?

## **2. Study Design**

In seeking to better understand instructor sentiment and experiences as they relate to TEL and decision-making, the researchers adopt an interpretivist lens. Due to the limited literature in the area under examination, desire for a better understanding of the social actors' experiences and views of the phenomena (Saunders *et al.*, 2003; Guba and Lincoln, 1994) and

the acknowledgement that the researchers employ an emic axiological perspective - that is, the researchers are also third level instructors (Wahyuni, 2012) - a qualitative methodology is best placed to address the research objectives of the study (Nicholls, 2009). Interviews form the principal data collection method, facilitating an emic perspective of the study phenomenon as participants share their experiences through conversations (Wahyuni, 2012) and allow the researchers to understand their views and perspectives (Gill *et al.*, 2008; Jacob and Furgerson, 2012). A semi-structured approach was employed for these interviews to permit the flexibility necessary to address both the key areas of interest for the researchers, and facilitate participants in conveying their worldviews and, if required, “go off on tangents” (Bryman, 2008, pg. 466). The population of interest for this study comprises third-level instructors with teaching responsibility across business disciplines, who have been actively teaching since the onset of the Covid-19 pandemic and engaged in remote technology-mediated instruction. Purposive sampling, more specifically critical sampling, was employed given the qualitative nature of the study (Patton, 2002).

The findings presented in this paper draw on an initial pilot study conducted with participants recruited across third-level institutes in the Republic of Ireland and the United Kingdom. A total of 13 participants were recruited across business disciplines with data collection commencing in April 2022 at the end of the academic year. Interviews were conducted online using MS Teams for all participants, meeting recordings were created, and the fidelity of interview transcripts was ensured through manual cross-checking with original recordings. Data was analysed using thematic analysis as prescribed by Braun and Clarke (2006). In order to ensure the accuracy and robustness of the coding framework an iterative peer debriefing approach was employed, whereby members of the research team independently coded data and reviewed coding for consistency across coders. Where discrepancies arose, coding was refined to ensure agreement across coders. This continued on an iterative basis until an agreed upon set of codes and subsequent themes were identified.

### **3. Findings**

The following section details the preliminary findings arising from the initial pilot study conducted. This section is divided in to three themes drawing on the research questions outlined above. The first theme considers the role of control and autonomy in instructor decision

making. Theme two uncovers how psychological distance manifests itself in HEIs and the implications for, and mechanisms employed by, instructors under conditions of perceived psychological distance between themselves and other third level stakeholders. The final theme considers the issue of instructor identity and how technology impacts on identity development in a technology mediated teaching environment.

*RQ1: How has TEL adoption necessitated by remote learning influenced pedagogic decision making?*

Decision-making processes under a mass-shift to remote learning required the vast majority of educators to re-evaluate their modes of delivery, course content, student interactions and assessment approaches. Broadly speaking, for most educators reliant on predominantly in-person delivery this required a reassessment of teaching practice. In the context of Covid-19 and the immediate move to remote learning, decision-making was quite reactionary in nature “*one of the first things that I did was go into survival mode*” (Participant 8). Teaching during this period typically entailed increased reliance on TEL with VLEs being pivotal in ensuring continued delivery of material “*if we didn't have Canvas during Covid we would have been in a very difficult position*” (Participant 5).

Although clearly exacerbated by Covid-19, autonomy within the technology enabled teaching decision-making process was observed to be impacted by instructors perceived control, with the latter comprising both internal factors relating to self-efficacy and external factors such as power held within the decision-making context. In some instances, various limits on instructors control over TEL decisions came into conflict, such as with one participant who discusses balancing time constraints with institutional resources and requirements “*I don't have time in orientation week to learn a new technology, so I went with [software provider], just paid for it myself and the university had some issues*” (Participant 1). Although control over decision-making was generally viewed as important, the use of some software also appears to give rise to concerns that instructors may have too much autonomy or be subject to insufficient oversight in their decision-making. The integrity implications of TEL related decisions lead some instructors to question the adequacy of available tools and implications for online assessment “*I have to have an invigilator to come into an exam that I'm conducting ... and yet somebody's using [named external software provider] as their exam platform. Who's invigilating that?*” (Participant 9).



Institutional factors were particularly relevant in the context of decision making with many participants expressing difficulties associated with hybrid and blended learning models employed to respond to students' need for both in-person and online instruction. In this regard some participants were left feeling unsatisfied with the conditions in which teaching occurred and the subsequent quality of their teaching interactions. One participant discusses how hybrid teaching was less desirable than fully online learning *"I wasn't as satisfied this year with my teaching or the interactions I had as I just felt there was there was too much ambiguity around the delivery"* (Participant 9). In this instance uncertainty and ambiguity served to reduce instructors' ability to plan and control. Other participants cited a sense of restriction on how they could deliver material due to institutional policies, highlighting a further lack of control on delivery given the futility of challenging institutional authority or questioning their decision-making process on policies that were quickly implemented: *"It's not an option, and that's fine. I just roll with whatever the University wants. These are institutional decisions so there's not a huge degree of choice. So, whatever is decided, I will optimize the learning experience around that...it's whatever the institution decides, I have to roll with it"* (Participant 10).

Tensions between control factors arising from technology and TEL-self efficacy as a barrier to utilising TEL platforms was evident in the data. This appears to centre principally around where responsibility for ensuring self-efficacy of staff lies, with some participants clearly viewing this as the responsibility of individual staff *"It's very easy to criticize and say we didn't get enough [support] ... there was meetings after meetings after meetings, but you had to volunteer, you had to engage. It had to come from you as a lecturer!"* (Participant 5).

*RQ2: Has TEL influenced psychological distance between HEI stakeholders?*

As previously discussed, it follows from construal level theory that psychological distance between individuals and various objects of thought (including stakeholders) is common and a feature of education prior to remote learning. However, the data presents a number of interesting findings relating to the nature of distance, the strategies employed by stakeholders in response to distance, and the consequences of TEL in this domain. A recurrent theme evident in the data was the decoupling of students and instructors through remote learning, which was often experienced as a loss by instructors *"I didn't feel the relationship was there with the students .... I didn't feel I got to know the students"* (Participant 9). This was felt not just in formal lecture settings, but in the subsequent relationships instructors forge with

individual students through informal conversations outside of the classroom, for example, regarding advice on additional resources or career progression: *“the number of people now coming to me for advice has decreased significantly in the last three years. I would say it was because of that...maybe they don’t feel as if they can approach me”* (Participant 13). Although the loss of connection with students arising from remote learning is intuitive, the strategies and responses evoked in reducing and reconciling the perception of distance with practice were of particular note.

Many instructors cite the lack of visual cues typically present in in-person teaching as a barrier to determining teaching effectiveness *“I’m not seeing any body language. I’m not getting any sense of how this is going, how it’s being received ... I’m getting some nice emails from students saying this is very interesting, but ... I’m finding it hard to gauge”* (Participant 9). In some instances, this results in instructor inference making to fill in the gaps between expectations and experiences. In particular, as distance between students and instructors increases, the specificity of construals evoked across the hypotheticality dimension decreases as instructors seek to explain lack of class engagement. One participant reflects on why they believe students in their online class do not turn on their microphone to respond to questions as follows:

*“students will turn it on and say I’ll be listening to that in the background and then they go off to the toilet and they go off somewhere else and an hour later they come back, you know, and they’re listening again. So they’re dipping in and dipping out.”* (Participant 8)

Although the hypotheticality dimension of distance was employed to generate explanations of behaviour under increased distance, hypotheticality was also employed as a means of bridging the gap between student experiences and instructor decision-making, highlighting the potential value of understanding the contextual factors surrounding students remote learning environments. Participant 8 discusses how they seek to consider the prospective user of their material and utilise their VLE to more effectively meet students’ need for structure:

*“What the pandemic has enabled me to do is to bring that structure more. So really thinking ... if I’m at home as a 20 year old or 21 year old in my room, ... how can I get the best from them in terms of the delivery of that material ... that has enabled me to think more clearly in terms of walking in the shoes of the student”* (Participant 5)

*RQ3: How does TEL impact instructors' conceptualization of their educator identity?*

Educators identity is dynamic in nature and intuitively was observed to be undergirded by reciprocal interactions between the educator and their students. Instructors were observed to define themselves through various facets of their teaching activities, however these could be categorised into one of three dimensions, teaching as a vocation, teaching as a process, and teaching as an output. Those considering their roles as vocational defined their role in terms of the societal importance and imperative of teaches. Those considering teaching as a process tended to consider the nature of interactions with learners as the defining feature of their interactions with learners, with a particular emphasis on nurturing learning environments and enabling learning. Teaching as an output considered their role in terms of the learning outcomes. In the context of teaching practice, a clear distinction between teaching tools and teaching practice was drawn across participants, this distinction was often ego defensive in nature and served to reinforce the value-added dimension of an individuals' contribution above and beyond the technology employed "*I believe that these tools enable learning in a positive way and support us and complement what we do. They will never replace what we do in person in the room.*" (Participant 5)

While identity represents the internally held representation of self, image represents the self as perceived by others. As instructors moved towards remote and asynchronous learning the issue of their personal brand image and maintaining their personal brand across different formats became increasingly evident. Participant 1 discusses deliberately staging their content creation during remote working to create a sense of timelessness to the material with a view to not disclosing the time and location from which they were working:

*"at home during the pandemic, I ... quite often would be recording things late at night, but I didn't want it to look like I was in my room, like in my spare room, recording things late at night, so a ring light gave the daylight feeling to it, so it there was a more timelessness to the recordings"*

(Participant 1)

While some instructors developed strategies to aid in constructing the image online, others faced challenges in replicating the teaching approaches typically employed in an in-person setting. These challenges in some instances went beyond the limitations of the technology to extend to the social dimensions of technology mediated instruction. To this end, some participants highlighted a noticeable change in how they were perceived by students

when lectures were delivered fully online. The following instructor details how they would consciously create a more formal, polished and professional persona when dealing with larger classes devoid of their regular teaching approaches, such as for example, the use of humour and the impact this had on students' perceptions of them as an individual:

*“I actually felt I was coming across maybe sterner than I would in a in a classroom, and I was in quite a funny situation where I think I'd a meeting with some students...afterwards, so and so said to me said no, [Lecturer Name] is actually really nice, no, he's really nice, he's actually really friendly. He can just come across as a bit serious online...I felt maybe that personality didn't come across online because I was maybe trying to be very professional and also, maybe knowing that everything was recorded, so certainly one thing I didn't use at all online was humour...I would tend to use a little bit of humour in my lectures, you know, and I was just very conscious that if all of this is being recorded and with social media nowadays and somebody takes something out of context, the next thing you know somebody putting a clip of you up on Twitter making a joke...I just thought it's not worth it” (Participant 9)*

#### **4. Discussion**

While TEL may potentially offer instructors new means of and insights into student engagement, including through student analytics (Wiedbusch *et al.*, 2021), the ways in which technology-mediated instruction shapes third-level educators' perspective and approaches towards the practice of teaching needs to be further explored. More specifically, the role of TEL in both potentially creating a psychological distance between instructors and their students, in addition to a perceived external locus of control on teaching practices and decision-making, remains under-explored. While extant literature addresses extensively the student perspective (Vladova *et al.*, 2021), this paper aims to shed light on the instructor perspective of deploying TEL systems as a means of supporting their pedagogical decision-making while contending with third party provider influence in various decision-making scenarios, such as content delivery and assessment design and deployment.

## **5. Limitations and Implications For Theory And Practice**

Although the technology adoption experienced during Covid-19 necessitating remote learning is likely to have long-term implications for teaching practice, crises, as non-routine events “*often create conditions that are not favourable toward traditional methods of data collection*” (Spence *et al.*, p. 667) and the data captured in this study represents reflective rather than contemporaneous accounts of TEL adoption. Consequently, the institutional approach to TEL adoption, which was in many instances characterised by respondents as reactionary rather than strategic in nature does not necessarily reflect ‘regular’ change management processes. Nevertheless, the challenges which this period of acute change present with respect to instructor adoption of TEL offers a fruitful ground for developing a roadmap to TEL integration which moves us beyond technology *enabled* to technology *enhanced* learning.

The research offers insights into the ways through which instructors conceptualise their identity as educators and navigate the nuances of computer-mediated instructor-student interactions. In particular, the implications of TEL as it relates to both psychological distance between instructors and other stakeholders, and the strategies which emerged as a result of this distance provide useful insights for instructors employing remote or technology mediated learning. This study also highlights some potential unanticipated consequences of third-party software providers influence on teaching decision-making.

## **6. Originality**

Adopting a multi-institutional approach this research seeks to complement a burgeoning body of post-Covid pedagogical research. Although some consideration of instructor response to remote learning is evident within the literature (Bartolic *et al.*, 2022; Pandya, Patterson and Cho, 2021), much of the post-Covid teaching and learning research has focused on issues such as student learning (Flores *et al.*, 2021), engagement (Cranfield *et al.*, 2021), student satisfaction (Rodriguez-Segura *et al.*, 2020). However, there is scant work on the broader impact on instructor identity, autonomy and psychological distance. As gatekeepers for curricula design, insights from instructors will help to further explore barriers, concerns and pitfalls associated with TEL adoption in further education.

## References

- Ahmad, H., Shah, S.R., Latada, F. and Wahab, M.N., 2019. Teacher identity development in professional learning: An overview of theoretical frameworks. *Bulletin of Advanced English Studies*, 3(1), pp.1-11.
- Akram, H., Yingxiu, Y., Al-Adwan, A.S. and Alkhalifah, A., 2021. Technology Integration in Higher Education During COVID-19: An Assessment of Online Teaching Competencies Through Technological Pedagogical Content Knowledge Model. *Frontiers in Psychology*, 12, pp.1–11.
- Bartolic, S.K., Boud, D., Agapito, J., Verpoorten, D., Williams, S., Lutze-Mann, L., Matzat, U., Moreno, M.M., Polly, P., Tai, J. and Marsh, H.L., 2022. A multi-institutional assessment of changes in higher education teaching and learning in the face of COVID-19. *Educational Review* 74(3), pp.517-533.
- Bayne, S., 2015. What's the matter with 'technology-enhanced learning'? *Learning, media and technology*, 40(1), pp.5-20.
- Bower, M., 2016. Deriving a typology of Web 2.0 learning technologies. *British Journal of Educational Technology*, 47(4), pp.763-777.
- Boyd, L., 2019. Using technology-enabled learning networks to drive module improvements in the UK Open University. *Journal of Interactive Media in Education*, 2019(1), pp.1-7.
- Braun, V. and Clarke, V., 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), pp.77–101.
- Broadbent, J. and Poon, W.L., 2015. Self-regulated learning strategies & academic achievement in online higher education learning environments: A systematic review. *The Internet and Higher Education*, 27, pp.1-13.
- Bryman, A. 2008. *Social research methods*. 3rd edn. New York; Oxford: Oxford University Press.
- Cranfield, D., Tick, A., Venter, I.M., Blignaut, R.J. and Renaud, K., 2021 Higher Education Students' Perceptions of Online Learning during COVID-19—A Comparative Study. *Education Sciences*, 11(8), p.403.
- Daniela, L., Visvizi, A., Gutiérrez-Braojos, C. and Lytras, M.D., 2018. Sustainable higher education and technology-enhanced learning (TEL). *Sustainability*, 10(11), p.3883.
- Dysvik, A. and Kuvaas, B., 2013. Perceived job autonomy and turnover intention: The moderating role of perceived supervisor support. *European Journal of Work and Organizational Psychology*, 22(5), pp.563-573.

- Flores, M.A., Barros, A., Simão, A.M.V., Pereira, D., Flores, P., Fernandes, E., Costa, L. and Ferreira, P.C., 2022. Portuguese higher education students' adaptation to online teaching and learning in times of the COVID-19 pandemic: personal and contextual factors. *Higher Education*, 83(6), pp.1389-1408.
- Gerstein, M. and Friedman, H.H., 2016. Rethinking higher education: Focusing on skills and competencies. *Gerstein, Miriam and Hershey H. Friedman (2016), "Rethinking Higher Education: Focusing on Skills and Competencies," Psychosociological Issues in Human Resource Management*, 4(2), pp.104-121.
- Gill, P., Stewart, K., Treasure, E. and Chadwick, B. 2008. 'Methods of data collection in qualitative research: interviews and focus groups', *British Dental Journal*, 204(6), pp. 291-295.
- Guba, E. G. and Lincoln, Y. S. 1994. 'Competing paradigms in qualitative research'. In Denzin, N. K. and Lincoln, Y. S. (Eds), *Handbook of Qualitative Research*. Thousand Oaks, California: Sage Publications.
- Gregory, M.S.J. and Lodge, J.M., 2015. Academic workload: the silent barrier to the implementation of technology-enhanced learning strategies in higher education. *Distance education*, 36(2), pp.210-230.
- Jacob, S. A. and Furgerson, S. P. 2012. 'Writing interview protocols and conducting interviews: Tips for students new to the field of qualitative research', *The Qualitative Report*, 17(42), pp. 1-10.
- Josefsson, P., Baltatzis, A., Bälter, O., Enoksson, F., Hedin, B. and Riese, E., 2018, March. Drivers and barriers for promoting technology enhanced learning in higher education. In *12th International Technology, Education and Development Conference (INTED)* (pp. 4576-4584).
- Kaqinari, T., Makarova, E., Audran, J., Döring, A.K., Göbel, K. and Kern, D., 2021. The switch to online teaching during the first COVID-19 lockdown: A comparative study at four European universities. *Journal of University Teaching & Learning Practice*, 18(5), p.10.
- Kirkwood, A. and Price, L., 2014. Technology-enhanced learning and teaching in higher education: what is 'enhanced' and how do we know? A critical literature review. *Learning, media and technology*, 39(1), pp.6-36.
- Lai, J.W. and Bower, M., 2020. Evaluation of technology use in education: Findings from a critical analysis of systematic literature reviews. *Journal of Computer Assisted Learning*, 36(3), pp.241-259.

- Liberman, N., Trope, Y., & Stephan, E., 2007. Psychological distance. In A. W. Kruglanski & E. T. Higgins (Eds.), *Social psychology: Handbook of basic principles* (pp. 353–381). The Guilford Press.
- Liberman, N. and Trope, Y., 2014. Traversing psychological distance. *Trends In Cognitive Sciences*, 18(7), pp. 364-369.
- Manathunga, K. and Hernández-Leo, D., 2015. Has research on collaborative learning technologies addressed massiveness? A literature review. *Journal of Educational Technology & Society*, 18(4), pp.357-370.
- Morgeson, F.P., Delaney-Klinger, K. and Hemingway, M.A., 2005. The importance of job autonomy, cognitive ability, and job-related skill for predicting role breadth and job performance. *Journal of Applied Psychology*, 90(2), p.399.
- Nicholls, D. 2009. 'Qualitative research: part one–philosophies', *International Journal of Therapy and Rehabilitation*, 16(10), pp. 526-533.
- Pandya, B., Patterson, L. and Cho, B., 2021. Pedagogical transitions experienced by higher education faculty members–“Pre-Covid to Covid”. *Journal of Applied Research in Higher Education*.
- Patton, M. Q. 2002. *Qualitative research & evaluation methods*. 3rd edn. Thousand Oaks, California: Sage Publications.
- Resnick, L., Asterhan, C. and Clarke, S., 2015. *Socializing intelligence through academic talk and dialogue*. American Educational Research Association.
- Rodriguez-Segura, L., Zamora-Antuñano, M.A., Rodriguez-Resendiz, J., Paredes-García, W.J., Altamirano-Corro, J.A. and Cruz-Pérez, M.Á., 2020. Teaching challenges in COVID-19 scenery: Teams platform-based student satisfaction approach. *Sustainability*, 12(18), p.7514.
- Salokangas, M., Wermke, W. and Harvey, G., 2020. Teachers’ autonomy deconstructed: Irish and Finnish teachers’ perceptions of decision-making and control. *European Educational Research Journal*, 19(4), pp.329-350.
- Saunders, M., Lewis, P. and Thornhill, A. 2003. *Research methods for business students*. 3rd edn. New York; Harlow, England: Prentice Hall.
- Scharp, K.M. and Sanders, M.L., 2019. What is a theme? Teaching thematic analysis in qualitative communication research methods. *Communication Teacher*, 33(2), pp.117-121.



- Segers, P. & Verhoeven, L., 2015. Benefits of technology-enhanced learning for deaf and hard-of-hearing students. In H. Knoors & M. Marschark, (eds.), *Educating deaf learners. creating a global evidence base* (pp. 481–502). Oxford: Oxford University Press.
- Shyr, W. and Chen, C., 2018. Designing a technology-enhanced flipped learning system to facilitate students' self-regulation and performance. *Journal of Computer Assisted Learning*, 34(1), 53-62.
- Škėrienė, S. and Augustinienė, A., 2018. The theoretical framework of factors influencing the pedagogical decision-making. *Pedagogika*, 131(3), pp.5-25.
- Spence, P.R., Lachlan, K.A. and Raine, A.M., 2016. Social media and crisis research: Data collection and directions. *Computers in Human Behavior*, 54, pp.667-672.
- Snoussi, T., 2019. Learning management system in education: Opportunities and challenges. *International Journal of Innovative Technology and Exploring Engineering*, 8(12S), pp.664-667.
- Trope, Y. and Liberman, N., 2010. Construal-level theory of psychological distance. *Psychological review*, 117(2), p.440.
- Venkateswaran, R., 2016. Evaluating the Use of LearnSmart and Connect in Introductory General Chemistry Classes: The Pros and Cons of an Online Teaching and Learning System. In *Technology and Assessment Strategies for Improving Student Learning in Chemistry* (pp. 83-99). American Chemical Society.
- Vladova, G., Ullrich, A., Bender, B. and Gronau, N., 2021. Students' acceptance of technology-mediated teaching—how it was influenced during the COVID-19 pandemic in 2020: a study from Germany. *Frontiers in Psychology*, 12, p.69.
- Volmer, J., Spurk, D. and Niessen, C., 2012. Leader–member exchange (LMX), job autonomy, and creative work involvement. *The Leadership Quarterly*, 23(3), pp.456-465.
- Wahyuni, D. 2012. 'The research design maze: Understanding paradigms, cases, methods and methodologies', *Journal of Applied Management Accounting Research*, 10(1), pp. 69-80.
- Wermke, W., Olason Rick, S. and Salokangas, M., 2019. Decision-making and control: Perceived autonomy of teachers in Germany and Sweden. *Journal of Curriculum Studies*, 51(3), pp.306-325.