

The contribution of online lurking practice to the pedagogical knowledgeability of part-time, external faculty members

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This research was undertaken as part of the PhD in e-Research and Technology Enhanced Learning in the Department of Educational Research at Lancaster University. I am pleased to acknowledge the contribution of tutors and peers in supporting the development of this study and its report as an assignment paper.

Abstract

This literature review examines the contribution of lurking practice to the knowledgeability of business school part-time, external faculty members in their teaching professional development. In the case of Instructional Practitioners (IPs) of the Association to Advance Collegiate Schools of Business (AACSB), they may not be competent in terms of pedagogies in their teaching landscape, but they can be knowledgeable (Wenger *et al.*, 2015, p. 19). This paper considered two research questions to address the challenges facing part-time, external faculty members in business schools seeking to advance their professional development in their teaching roles. Firstly, can the practice of lurking contribute to pedagogical knowledgeability by IPs? Secondly, does this knowledgeability contribute to a pedagogical professional identity for IPs? The findings indicate that while there is a certain amount of literature available to support the professional development of early career academics and those changing career into teaching, there is little that deals directly with the experiences of industry professionals who also engage in part-time teaching roles. The findings of this study indicate that IPs are for the most part left to fend for themselves when it comes to continuous improvement of their pedagogical knowledgeability and professional teaching practice.

Keywords

Part-time faculty, external faculty, knowledgeability, lurking, professional development

1. Introduction

Kemmy Business School at the University of Limerick, Ireland, is accredited to the Association to Advance Collegiate Schools of Business (AACSB) denoting a standard of excellence in business education. It follows a set of standards to drive continuous process improvement amongst accredited business schools and focuses on the intersection of academia and practice. To meet this requirement, Standard 15 categorises faculty members into one of four categories a) Instructional Practitioner; b) Practice Academic; c) Scholarly Academic; d) Scholarly Practitioner (AACSB International, 2018).

Figure 1 - Faculty Qualifications and Engagement

		Sustained engagement activities	
		Academic (Research/Scholarly)	Applied/Practice
Initial academic preparation and professional experience	Professional experience, substantial in duration and level of responsibility	Scholarly Practitioners (SP)	Instructional Practitioners (IP)
	Doctoral degree	Scholarly Academics (SA)	Practice Academics (PA)

Part-time, external faculty members are contract staff who, for the most part, fall into the category of Instructional Practitioner (IP), have considerable professional experience but are not considered scholarly. The latest AACSB data does not indicate what proportion of IPs are part-time external, only that total IPs make up 36.8% of faculty (Business School Data Guide, 2019, p. 25). Since IPs are often engaged in full-time industry roles the attainment of a doctoral degree is often not a consideration, therefore the opportunity to progress to Practice Academic (PA) and beyond may well be out of reach.

In the technological, content and pedagogical knowledge (TPACK) framework content knowledge (CK) is defined as “teachers’ knowledge about the subject matter to be learned or taught” (Koehler & Mishra, 2009, p. 63). Pedagogical knowledge (PK) is defined as “teachers’ deep knowledge about the processes and practices or methods of teaching and learning” (Koehler & Mishra, 2009, p. 64). However,

Koehler and Mishra fail to explain their use of the term deep knowledge in PK when compared to simply knowledge in CK. Although not defined in the Merriam-Webster dictionary, the term knowledgeability is defined in the Webster dictionary as “wisdom as evidenced by the possession of knowledge” (Webster, n.d.). Prefixing this definition with the term pedagogical suggests a working definition that aligns with Wenger’s concept of knowledgeability presented as “an outcome of learning with respect to a landscape, which includes a lot of practices in which one cannot claim competence” (Wenger & Wenger-Trayner, 2015). IPs operate in a variety of communities of practice including professional practice and teaching practice which Wenger terms “landscape of practice” (Wenger & Wenger-Trayner, 2015). The introduction of knowledgeability in place of competence is useful in that it recognises the broad base of IPs experience resulting from the combination of full-time professional roles and part-time teaching roles.

A generally accepted definition of lurking is from the Merriam-Webster dictionary: “to read messages without contributing on an Internet discussion forum” (Merriam-Webster, n.d.). While traditionally considered a negative connotation, studies have found that lurking online is a complex practice rather than simply a negative one (Arnold & Paulus, 2010; Beaudoin, 2002; Cranefield et al., 2015; Dennen, 2008; Honeychurch et al., 2017).

2. Research scope, aim and questions

The research scope focused on part-time, external faculty to help understand whether the practice of lurking in online environments for example, Massive Open Online Courses (MOOCs) and Twitter discussion threads, contributed to the development of Wenger's concept of knowledgeability (Wenger et al., 2015, p.13) in pedagogical practice. It aimed, through a comprehensive review of the literature, to explore the practice of online lurking to determine its value in furthering the pedagogical knowledgeability and professional development practice of AACSB IPs in part-time, external faculty positions.

To support this aim, the following research questions (RQs) were formulated:

RQ 1 What does the practice of lurking by IPs who double-job between industry and teaching contribute to their pedagogical knowledgeability?

RQ 2 How can this knowledgeability contribute to a teaching identity and pedagogical professional development of IPs?

3. Ontology and epistemology

Along the ontological continuum my general position is one of interpretivism, “used to identify approaches to social science that share particular ontological and epistemological assumptions” (Bryman et al., 2004, p. 509). The topic of interest to this study aligns with my interpretivist personal perspective since I seek to find meaning in social reality and consider my own values and beliefs to have an important role to play in the research process. This presents two axiological challenges to be mindful of. Firstly, the researcher is part of what is being researched and secondly, the interpretations of the researcher are key to the research contribution.

4. Methodology

Literature search and selection

Based on the research scope, aim and questions, an initial search was undertaken in the Scopus database using the following individual keywords: lurking, learning, knowledgeability, professional development, adjunct faculty. Further filtering was undertaken through searching for strings of words relevant to the research topic. These included “lurking online” (147 documents) edited to “lurking online and learning” (31 documents); “learning online and professional development” (3,676 documents) edited to “learning online and professional development of adjunct faculty” (7 documents). Considering the teaching component of the research topic, an initial string “teaching online and adjunct faculty” resulted in 52 documents, 30 of which were journal articles. A review of the abstracts indicated that 6 articles might be considered relevant to this topic. Applying the same approach to the previous two searches, the keywords and abstracts of the resulting articles were copied and pasted into a spreadsheet where they were mapped to each of the initial three RQs as well as the overarching research aim. The mapping step was considered important in order to achieve balance amongst the RQs. Listed keywords from these papers were reviewed to identify additional searches including “professional identity”, “academic identity”, “teacher agency” and a combination thereof. A review of the reference lists appended

to some papers was undertaken and a selection included in the final total of 34 cited references mapped in the following table:

Research Question	No. of unique studies	References
<i>RQ1</i> : What does the practice of lurking by IPs who ‘double-job’ between industry and teaching contribute to their pedagogical knowledgeability?	16	Arnold & Paulus, 2010; Beaudoin, 2002; Consalvo et al., 2015; Cranefield et al, 2015; Cranefield et al., 2011; Dennen, 2008; Gosselin et al., 2016; Honeychurch et al., 2017; Hung et al., 2015; Lave & Wenger, 1991; Lee et al., 2006; Neelen, 2010; Nonnecke & Preece, 2003; Sun et al., 2014; Wenger et al., 2015; Wenger & Wenger-Trayner, 2015.
<i>RQ2</i> : How can this knowledgeability contribute to a teaching identity and pedagogical professional development of IPs?	18	Beauchamp & Thomas, 2010; Beijaard et al., 2000; Beijaard et al., 2004; Biesta et al., 2015; Buchanan, 2015; Dikilitaş & Yaylı, 2018; Fraser-Arnott, 2019; Gosselin et al., 2016; Ibarra, 1999; King & Nomikou, 2018; Newberry, 2014; Owston, 2007; Palermo & Thomson, 2019; Philpott & Oates, 2016; Skott, 2019; Slay et al., 2011; Varadharajan et al., 2018; Yuan & Burns, 2017.

Table 5.1 - Literature mapping to research questions

6. Review and discussion of existing literature

In an age when the competition amongst business schools to justify their place in the academic world is rife, (Parker, 2018; Tourish et al., 2019) the balance of theory and practice in their curriculum offerings is of great consideration amongst such schools seeking to achieve impact (Lejeune et al. 2019). Bringing in people from outside higher education is considered a method of integrating practice and academia (Cendon, 2018). Accreditation is seen as one way of addressing the integration issue. An example is the Association to Advance Collegiate Schools of Business (AACSB) whose promotional material describes itself as:

“a global non-profit association, connects educators, students, and business to achieve a common goal: to create the next generation of great leaders” (About AACSB | n.d.). Business leadership requires a careful balance of theory and practice especially at postgraduate level. The importance follows therefore, that teachers on such programmes should also have a good balance of industry experience and teaching practice. In order to sustain IP status (see figure 1), AACSB suggests the following interactions amongst its non-exhaustive list:

- “- Documented continuing professional education experiences
- Documented professional certifications in the area of teaching” (AACSB International, 2018, p. 46).

For IPs in full-time industry roles, the potential to succeed in either of these interactions is limited. Drawing on learner agency and self-efficacy these IPs must navigate a path to knowledgeability “the concept of socially defined competence and personal experience” defined by Wenger et al. (2015, p. 13). In the case of IPs, knowledgeability in their professional domain is not in question. While they may not be competent in terms of pedagogies in their teaching landscape they can be knowledgeable about them (Wenger et al., 2015, p. 19). But how is knowledgeability measured as a whole? Personal experience is arguably a measurable component in terms of continuing professional development offered by institutions who award professional development units (PDUs) for this purpose, but what of socially defined competence? Can it even be measured? The literature offers little in this regard. Perhaps then the solution lies in an identity of knowledgeability for IPs who realistically may find the pursuit of professional teaching identity a step too far in addition to managing their regular professional identity?

The role of lurking in the development of pedagogical knowledgeability (RQ1)

The landscape of practice concept coined by Wenger et al. (2015) relates very well to those in the position of part-time, adjunct faculty IPs who are recruited for their experience in a sector of interest to the educational institution. In terms of the TPACK framework (Mishra & Koehler, 2006), they are more likely to have strong content knowledge (CK) but less in terms of technological knowledge (TK) and pedagogical knowledge (PK). To help them cross the boundary to education, they are most likely given initial training that may be synchronous or asynchronous and then left to

manage their teaching responsibilities while drawing upon their non-education experience to successfully navigate the path forward. There may be a community of practice (Wenger & Wenger-Trayner, 2015) to tap into but with spare time being a limiting factor, more often than not these IPs are on their own.

One option to help bridge the knowledge gap is to engage in online learning. There are many MOOCs available to support the professional development of IPs, along with academic Twitter as another useful source of knowledge regarding teaching and pedagogy. Where participation by IPs as learners is peripheral in their desire to support their knowledge and learning, there may be a number of reasons as to why this is the case. Research by Beaudoin (2002) suggested that students felt the benefits of a peripheral approach to their online studies albeit not as extensively as those who took an active engagement approach. Cranefield et al. (2015) argue that there are two types of knowledge brokers, both engaged in positive activities that include managing knowledge and mentoring or being mentored. Further, the boundary spanning theory and practice was considered by this research to be one of four diverse boundaries that could be addressed through the practice of lurking (Cranefield et al., 2015). This builds on their earlier research that argued that lurking has a valuable role in terms of “understanding cross-boundary social activity and knowledge transfer” (Cranefield et al., 2011, p. 2). Earlier studies also found “non-public participation” (Arnold and Paulus, 2010; Nonnecke and Preece, 2003) and “pedagogical lurking” (Dennen, 2008) to be an important component since reading (discussion) posts “facilitates interactive learning” (Dennen, 2008, p. 194).

While the literature selected is not specific to the development of pedagogical knowledgeability it contributes to dispelling the earlier negative connotation associated with lurking supporting the argument that it should be replaced with active engagement and participation.

The pathway to pedagogical professional identity for Instructional Practitioners (RQ2)

Having established that there is a role for pedagogical lurking (Dennen, 2008) to support those seeking to improve their knowledge, this section seeks to understand if a teaching identity can be developed along with pedagogical professional development for an IP. Professional identity refers to how individuals define

themselves in a professional role and considers attributes, beliefs, motives, values and experiences (Ibarra, 1999, p. 765) that are both stable and enduring (Schein, 1978). As such, these might be built up over time during the course of a career. There may be a contrast between for example, those who train to be doctors since their professional identity may be easier to communicate than for example, project managers who may have started their career in a general business role before specialising in the area of project management. Regardless, at some stage in their careers, individuals will most likely be comfortable in their professional identity perhaps through experimentation with what Ibarra refers to as “possible selves and provisional selves” (Ibarra, 1999). As individuals change career paths, a new professional identity may become necessary. Education and training for the new role may help transition to the new professional identity but it is not an overnight occurrence (Skott, 2019; Varadharajan et al., 2018). Gosselin et al. (2016) refer to the importance of well-designed professional development for teachers transitioning to an online environment suggesting that learner agency alone is insufficient in such transitions.

In Ireland the National Forum for the Enhancement of Teaching and Learning in Higher Education has established a framework for the professional development of all staff who teach in higher education (“The National Professional Development Framework for All Staff Who Teach in Higher Education”, 2016). It consists of five domains and centres the first domain, ‘the self’, emphasising personal values and experiences the individual brings to teaching and learning with considerable focus on reflection. The fourth domain, ‘professional knowledge and skills in teaching and learning’ is also advantageous since IPs bring a lot of industry knowledge and experience to the classroom, included in the first element of this domain. As a recently developed framework it is not yet evident to what extent this domain contributes to IPs pedagogical professional identity, and this may be an opportunity for further research.

Without a structured programme to support the development of a teaching identity the onus is on the new practitioners to apply learner agency to fill the gap (Beauchamp and Thomas, 2010). Learner agency to adapt to teaching roles is important, but this does not constitute teacher agency. Philpott and Oates (2016) found that while connections have been made between teacher agency and professional learning communities there is little detailed evidence of either concept in action. The

individual values held by those seeking to become teachers are important (Palermo and Thomson, 2019) but may not match the beliefs and values of the educational institution, and therefore a collective approach may be required (Biesta et al., 2015). This may prove a challenge in the absence of a structured programme for professional development.

The literature is agreed on the notion that teacher identity is a complex concept and not easily defined particularly in relation to non-traditional teachers (Newberry, 2014). For this reason, the focus of the review turns to the development of industry professionals engaging in part-time teaching roles. Setting identity aside, there remains a need for professional development to support ongoing teaching responsibilities once the initial training programme is complete. The term continuing professional development (CPD) is intended to be ongoing and a one size fits all approach does not necessarily apply (Beijaard et al., 2000; Gosselin et al., 2016). In their review of key literature sources on the topic, Beijaard et al. (2004) concluded that there are different interpretations of the term professional in professional identity and that contextual and experiential factors are not altogether recognised (Beijaard et al., 2000; Beijaard et al., 2004). Buchanan (2015) considers teachers to have complex professional selves and that professional agency and professional identity are related. Given the challenges associated with establishing definitions and contexts for teaching identity and professional development, this study suggests that the concept of knowledgeability should be considered a factor in the pedagogical professional development of IPs in a way that action research is used for professional development of teachers (Dikilitaş and Yaylı, 2018; Yuan and Burns, 2017). Beijaard et al. (2000) found that teachers see their professional identities as consisting of varying degrees of subject matter expertise, didactic and pedagogical expertise. The literature is unclear as to whether these areas of expertise constitute a balanced triangle but the subject matter expertise that IPs bring to the teaching arena as personal experience along with considered socially defined competence may contribute significantly to their overall knowledgeability when it comes to pedagogical professional development.

Gaps in the literature

The literature reviewed has been generic in nature and there is no evidence of research studies that have considered the people at the heart of this topic, Instructional

Practitioners (IPs), who combine full-time industry roles with part-time teaching responsibilities. The available literature deals with faculty already in tenured positions or those seeking to change careers into teaching. As such, there is opportunity to explore the concept of pedagogical professional development specific to individuals retaining industry roles.

Given the absence of literature specific to full-time industry professionals who also engage in part-time teaching, the question of identity may not be an issue. Similar to those who identify as teachers who engage in research, or those who identify as researchers but also do some teaching, IPs are exactly that, identifying as industry professionals who also do some teaching. Their professional identity is tied to their industry roles, they are not changing career and embarking on a pathway of becoming a student teacher, which has its own challenges (Varadharajan et al. 2018; Williams, 2010). Rather, they are embarking on an additional career in teaching where they can offer students significant benefit of their experience but are restricted in their teaching development by the professional landscape in which they find themselves.

Combining two professional identities to include industry and teaching professions is also not clearly addressed in the literature and could be explored further. Perhaps the construction of an “identity of knowledgeable” (Wenger et al., 2015, p. 13) can be further developed in consideration of IPs since personal experience and socially defined competence, the fundamental elements of knowledgeable, are not in question.

4. Conclusions and Future Work

This literature review set out to broadly understand whether the practice of lurking contributed to the knowledgeable of Instructional Practitioners (IPs) as part-time, external faculty members in their teaching practice and professional development. The topic was refined to consider two research questions from the general role of lurking in pedagogical development, to the consideration of pedagogical professional identity. The research found that the literature did not specifically address the stakeholder group who double-job between industry and teaching responsibilities. As such, a more generic approach for literature selection was taken to include tenured faculty and those pursuing a change of career into teaching. Similarly, while the definitions used

to categorise faculty members were selected for business schools (members of AACSB) the literature did not yield specific business school related results.

The findings did not yield any major surprises. IPs are hired into part-time, external positions for the value their industry experience provides. This is their identity of knowledgeability. Knowledgeability extends across landscapes of practice (Wenger et al., 2015, p. 26) that includes learning and pedagogy and there is little evidence to suggest that any formal professional development exists to bridge the landscape gap. As a result, IPs wishing to develop their pedagogical knowledgeability and identity must rely on their own efforts in order to maintain their professional development. The practice of lurking and development of professional learning networks can contribute to this goal. Institutions also have a responsibility to all their staff and must do more to help part-time, external faculty secure the necessary professional development to benefit themselves and their students, current and future (Beaton, 2017; Ní Shé et al., 2019). Support for the professional development framework, particularly its focus on reflective practice, I suggest is a good place to start.

References

- AACSB International. (2018). Eligibility Procedures and Accreditation Standards for Business Accreditation (P. 42-43). Tampa, Fl. Retrieved from <https://www.aacsb.edu/-/media/aacsb/docs/accreditation/business/standards-and-tables/2018-business-standards-track-changes.ashx?la=en&hash=9C191B7B3A3A2E3E1DDC51A5C5275457092D>
- [ADBB](#)
- Arnold, N., & Paulus, T. (2010). Using a social networking site for experiential learning: Appropriating, lurking, modeling and community building. *Internet and Higher Education, 13*(4), 188-196.
- Beaton, F. (2017). Just in time and future-proofing? Policy, challenges and opportunities in the professional development of part-time teachers. *International Journal for Academic Development, 22*(1), 19-30.
- Beauchamp, C., & Thomas, L. (2009). Understanding teacher identity: An overview of issues in the literature and implications for teacher education. *Cambridge Journal of Education, 39*(2), 175-189.
- Beaudoin, M. F. (2002). Learning or lurking? Tracking the "invisible" online student. *Internet and Higher Education, 5*(2), 147-155.
- Beijaard, D., Meijer, P., & Verloop, N. (2004). Reconsidering research on teachers' professional identity. *Teaching and Teacher Education, 20*(2), 107-128.
- Beijaard, D., Verloop, N., & Vermunt, J. (2000). Teachers' perceptions of professional identity: An exploratory study from a personal knowledge perspective. *Teaching and Teacher Education, 16*(7), 749-764.

- Biesta, G., Priestley, M., & Robinson, S. (2015). The role of beliefs in teacher agency. *Teachers and Teaching, 21(6)*, 624-640.
- Bryman, A., Liao, T. F. & Lewis-Beck, M. S. (2004). The Sage encyclopedia of social science research methods. Thousand Oaks, Calif.: Sage
- Buchanan, R. (2015). Teacher identity and agency in an era of accountability. *Teachers and Teaching, 21(6)*, 1-20.
- Consalvo, A., Schallert, D. & Elias, E. (2015). An examination of the construct of legitimate peripheral participation as a theoretical framework in literacy research. *Educational Research Review, 16*, 1-18.
- Cranefield, J., Yoong, P., & Huff, S. (2015). Rethinking Lurking: Invisible Leading and Following in a Knowledge Transfer Ecosystem. *Journal of the Association for Information Systems, 16(4)*, 213-247.
- Cranefield, J., Yoong, P., & Huff, S. L. (2011, July). Beyond Lurking: The Invisible Follower-Feeder In An Online Community Ecosystem. In *PACIS* (p. 50).
- Dennen, V. (2008). Pedagogical lurking: Student engagement in non-posting discussion behavior. *Computers in Human Behavior, 24(4)*, 1624-1633.
- Gosselin, K. P., Northcote, M., Reynaud, D., Kilgour, P., Anderson, M., & Boddey, C. (2016). Development of an evidence-based professional learning program informed by online teachers' self-efficacy and threshold concepts. *Online Learning Journal, 20(3)*, 178-194. Retrieved from <http://olj.onlinelearningconsortium.org/index.php/olj/article/view/648>
- Dikilitaş, K., & Yaylı, D. (2018). Teachers' professional identity development through action research. *ELT Journal, 72(4)*, 415-424.

- Fraser-Arnott, M. (2019). Evolving practices and professional identity: How the new ways we work can reshape us as professionals and a profession. *IFLA Journal*, 45(2), 114-126.
- Honeychurch, S., Bozkurt, A., Singh, L., & Koutropoulos, A. (2017). Learners on the Periphery: Lurkers as Invisible Learners. *European Journal of Open, Distance and E-Learning*, 20(1), 192-212.
- Ibarra, H. (1999). Provisional Selves: Experimenting with Image and Identity in Professional Adaptation. *Administrative Science Quarterly*, 44(4), 764-791.
- King, H., & Nomikou, E. (2018). Fostering critical teacher agency: The impact of a science capital pedagogical approach. *Pedagogy, Culture & Society*, 26(1), 87-103.
- Koehler, M. J., & Mishra, P. (2009). What is technological pedagogical content knowledge? *Contemporary Issues in Technology and Teacher Education*, 9(1), 60-70.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.
- Lee, Y. (2006). Lurking as participation: A community perspective on lurkers' identity and negotiability. ICLS 2006 - *International Conference of the Learning Sciences, Proceedings*, 1, 404-410.
- Merriam-Webster Dictionary, The (n.d.). Lurking. Retrieved from <http://www.merriam-webster.com/dictionary/lurking>

- Neelen, M. (2010). Lurking: A challenge or a fruitful strategy? A comparison between lurkers and active participants in an online corporate community of practice. *International Journal of Knowledge and Learning*, 6(4), 269-284.
- Ní Shé, C., Farrell, O., Brunton, J., Costello, E., Donlon, E., Trevaskis, S., & Eccles, S. (2019). *Teaching online is different: critical perspectives from the literature..* Dublin: Dublin City University. Retrieved from <https://openteach.ie/wp-content/uploads/2019/11/Teaching-online-is-different.pdf>
- Newberry, M. (2014). Teacher Educator Identity Development of the Nontraditional Teacher Educator. *Studying Teacher Education*, 1-16.
- Nonnecke, B., & Preece, J. (2003). *Silent participants: Getting to know lurkers better.* In From usenet to CoWebs (p. 110-132). Springer, London.
- Owston, R. (2007). Contextual factors that sustain innovative pedagogical practice using technology: An international study. *Journal of Educational Change*, 8(1), 61-77.
- Palermo, C. & Thomson, M., (2019). Large-scale assessment as professional development: Teachers' motivations, ability beliefs, and values. *Teacher Development.*, 23(2), 192-212.
- Philpott, C., & Oates, C. (2017). Teacher agency and professional learning communities; what can Learning Rounds in Scotland teach us? *Professional Development in Education*, 43(3), 318-333.

Skott, J. (2019). Changing experiences of being, becoming, and belonging: Teachers' professional identity revisited. *Zentralblatt Für Didaktik Der Mathematik: ZDM = International Reviews on Mathematical Education.*, 51(3), 469-480.

Slay, H., Smith, D., Khapova, S., & Arthur, M. (2011). Professional identity construction: Using narrative to understand the negotiation of professional and stigmatized cultural identities. *Human Relations*, 64(1), 85-107.

Sun, N., Rau, P. P. and Ma, L. (2014). Understanding lurkers in online communities: A literature review. *Computers in Human Behavior*, 38(C), 110-117.

The National Professional Development Framework for All Staff Who Teach in Higher Education (2016). Retrieved 26 November 2019, from <https://www.teachingandlearning.ie/our-priorities/professional-development/the-national-professional-development-framework-pdf-for-all-staff-who-teach-in-higher-education/>

Varadharajan, M., Buchanan, J., & Schuck, S. (2018). Changing course: The paradox of the career change student-teacher. *Professional Development in Education*, 44(5), 738-749.

Wenger, E., & Wenger-Trayner, B. (2015). *Communities of practice a brief introduction* [Ebook]. Retrieved from <https://wenger-trayner.com/wp-content/uploads/2015/04/07-Brief-introduction-to-communities-of-practice.pdf>

Wenger, E., & Wenger-Trayner, B. (2015). *Learning in landscapes of practice* | Wenger-Trayner. Retrieved 16 September 2019, from <https://wenger-trayner.com/resources/publications/learning-in-landscapes-of-practice/>