

PUBLISHED VERSION

Thapnakvatey Prak, Dr. Peter John Sandiford, Dr. Sabine Schuhrer

Cognitive development in the transition from higher education to work through the lens of Zone of Proximal Development: Interpretative Phenomenological Analysis

Proceedings of the 34th Annual Australian & New Zealand Academy of Management Conference (ANZAM 2021), 2021, pp.637-653

© 2021 Australian and New Zealand Academy of Management

Published at: <https://www.anzam.org/past-event-material/>

PERMISSIONS:

Copyright permission to use published version received via email 1/7/2022

Date 1st July 2022

<http://hdl.handle.net/2440/135331>

**Cognitive development in the transition from higher education to work through
the lens of Zone of Proximal Development: Interpretative Phenomenological
Analysis**

Thapnakvatey Prak

Adelaide Business School, The University of Adelaide, Adelaide, Australia

Email: thapnakvatey.prak@adelaide.edu.au

Dr. Peter John Sandiford

Adelaide Business School, The University of Adelaide, Adelaide, Australia

Email: peter.sandiford@adelaide.edu.au

Dr. Sabine Schuhrer

Adelaide Business School, The University of Adelaide, Adelaide, Australia

Email: sabine.schuhrer@adelaide.edu.au

Cognitive development in the transition from higher education to work through the lens of Zone of Proximal Development: Interpretative Phenomenological Analysis

Abstract

Vygotsky's Zone of Proximal development has proved influential in many learning-oriented contexts, developing from its focus on children to encompass adult learning. There has, however, been less research into the implications of Vygotsky's work for university programs that prepare graduates for a specific professional context such as hospitality and tourism. This work in progress paper explores the transitional experiences of such graduates in Cambodia. Using Interpretative Phenomenological Analysis, this paper explores graduate employees' *potential* and *actual* development in the workplace, building on their university experience. Study participants achieved varying levels of development based on diverse learning experiences and opportunities at university, provided by employers and from peers.

Keywords

Zone of Proximal Development, Interpretative Phenomenological Analysis, learning, cognitive development, graduate transition, graduate employee, tourism and hospitality.

Vygotsky's (1987) concept, the Zone of Proximal Development (ZPD), has contributed to our understanding of the nature of learning and development (Breive, 2020) and the influence of social interactions on cognitive development (Eun, 2019). Although ZPD originally focused on childhood learning, it has also been applied to adult learning, suggesting that adults undergo a similar process (Tharp & Gallimore, 1988). It can help make sense of cognitive development from a socio-cultural perspective (Lourenco, 2012) within the family, school and workplace. It has been widely researched in psychology and education (Eun, 2019) and offers a framework for investigating professional development (Mcpherson-Bester, 2019), student work experience (Davies & Sandiford, 2014) and the transition from high school to university (Goggin, Rankin, Geerlings & Taggart, 2016). However, adult ZPD has not been adequately studied (Mcpherson-Bester, 2019).

This work in progress paper draws from an ongoing student research project that uses Interpretative Phenomenological Analysis (IPA) to explore tourism and hospitality graduates'

7. Teaching and Learning

transition from higher education to employment in Cambodia. The study explores graduate employees' work-based learning and development, using Vygotsky's concepts of *potential* and *actual* development. The paper provides a brief conceptual and methodological overview, before focusing on the project's initial findings to stimulate discussion on this important stage in graduate careers. This includes an outline of the next stage of the research and an invitation for comments and discussion.

LITERATURE

The ZPD refers to 'the distance between the *actual* developmental level as determined by independent problem solving and the level of *potential* development as determined through problem solving under adult guidance or in collaboration with more capable peers' (Vygotsky, 1978, p. 86). As learners' cognitive development depends both on their current capability and also on their *potential* (Wertsch, 1993), a holistic examination of their development needs to be three-pronged: the *actual* development, the *potential* development, and the move from one to the other. *Actual* development, or what a learner 'has and knows today,' (Vygotsky, 1978, p. 208) is the extent of what a learner knows about a certain subject matter (Campione, Brown, Ferrara & Bryant, 1984) 'in its finished form' (Wertsch, 2008, p. 67). *Potential* development, on the other hand, is more a matter of latency or 'an indication of the presence of certain maturing functions' which could be nurtured (Chaiklin, 2003, p. 43). *Potential* development builds on *actual* development within the ZPD (Meyerson, Haderxhanaj, Comer & Zimet, 2018) while influencing (and governing) the next level of *actual* development.

A child's ZPD emerges when social interactions between two individuals, the learner and an adult or a capable peer, initiate the development process (Wertsch, 2008). A ZPD can be indicated by learning opportunities such as 'modeling', or the provision of 'guided example in job or coalition environments' (Meyerson, Haderxhanaj, Comer & Zimet, 2018, p. 7) or other learning tasks requiring assistance (Tharp & Gallimore, 1988). Such zones are established by the interaction between prior learning and current developmental opportunities (Vygotsky, 1978). During development, when solving a problem with the assistance of other people, the learner imitates them not only immediately

7. Teaching and Learning

but also some time later without their presence, so the collaboration remains in an invisible form (Vygotsky, 1987). ZPDs vary widely (Vygotsky, 1987) as does a person's learning efficiency (Campione, Brown, Ferrara & Bryant, 1984), influenced by learning context and individual factors. When within the ZPD, instructions can help the learner develop to their *potential*; if such instructions are too easy or too challenging, they fall outside the ZPD, so are less beneficial (Vygotsky, 1987). When *potential* is actualised, this translates to a new *actual* capability (Vygotsky, 1978).

Transitioning from *actual* to *potential* to new-actual levels can involve four levels of interactions; the first three levels are situated within the ZPD (Wertsch, 2008). First, the child does not understand adult instruction to perform an activity; thus, when framing instruction, adult language must be tailored to the child, scaffolding learning rather than simply instructing. Instruction must fit with the child's *actual* development so that '*potential* for imitation' can emerge for further learning (Vygotsky, 1987, p. 211). Second, the child starts to understand the instruction after responding to parts of it. Third, after understanding discreet adult guidance and reassurance, the child can undertake the activity more confidently and independently. Transition from other-regulation to self-regulation begins here. Fourth, the child can now perform the activity with no assistance. The child language evolves to encompass the adult directive speech, completing a transition to actualised development.

ZPD has been increasingly applied to adult learning situations in a variety of occupational contexts, such as tourism (Stylidis, Woosnam, & Tasci, 2021), music (Hopkins, 2013), sports (Dehghansai, Headrick, Renshaw, Pinder & Barris, 2020; Stambulova, 2010), library and information (Fourie 2013), nursing (Kantar, Ezzeddine & Rizk, 2020; Williams, 2016), academic medicine (Groot, Jonker, Rinia, ten Cate & Hoff, 2020), engineering education (Abeywardhane, Lützhöft, Petersen, & Enshaei, 2016), and information technology (Hung & Chen, 2001). Despite this, application to adult learning requires caution, if only because adult minds are likely to be based around considerably more life experience and may be less malleable than those of children (affecting both *actual* and *potential* development), as learners create and reinforce their sense of self (Warford, 2011), constructing their own unique frame of reference (Clapper, 2015).

METHOD

The study is an interpretative phenomenological analysis (IPA). IPA is a qualitative research method that explores the lived experience of people and its meaning to them (Smith & Shinebourne, 2012). Transitioning from university to workplace, graduates live through significant contextual change, requiring them to make sense of their new lives. IPA allows for detailed examination of such lived experience, fitting well with the current study's focus on this challenging transitional period.

IPA has three theoretical underpinnings: phenomenology, idiography and hermeneutics (Smith, 2011). Phenomenology relates to the detailed investigation of lived experience (Smith, 2011) and the struggle to make meaning of it (Eatough & Smith, 2010). The study explores how a sample of graduates experienced the change in their new role of employee away from the safe university environment. By reconstructing their meaning making journey, it identifies and explores phenomena relating to the education-to-work transition and search for learning support in the world of work. This may occur through explicit or implicit support from colleagues, supervisors and trainers, replacing the learning scaffolding of lecturers, textbooks and course mates. IPA with its idiographic principle which emphasises the details (Shinebourne, 2011) recognises the subjective experience of individuals (Pagnini, Gibbons & Castelnuovo, 2012). Thus, analysis requires deep hermeneutic interpretation and analysis of individual cases, before any cross-case patterns of meaning and common experience are identified (Shinebourne, 2011). IPA is seen as a double hermeneutic because the researcher makes sense of participants' sense-making journeys (Smith, 2011; Smith & Osborn, 2008). The IPA researcher plays a dynamic role in the interpretive process (Neubauer, Witkop & Varpio, 2019), thus co-constructing, or at least structuring, the interview itself. Here, IPA allows the participants' interpretation of their transition to emerge from their own narratives, with the researcher interpreting their narratives within common contexts.

Relatively small samples in IPA are crucial when seeking richly idiographic narrative accounts, enabling researchers to gather data of sufficient depth to do phenomenological justice to the interview texts (Agarwal, 2021; McCormick, 2009; Smith, Flowers & Larkin, 2009). Eighteen Tourism and Hospitality graduates were interviewed via Zoom. Interviews were conducted in Khmer

7. Teaching and Learning

based around several open-ended questions, used as directional cues for participants to talk about their academic and work experiences. Interviewees were encouraged to talk freely, using *why*, *how* and silent probes. This radical listening was used throughout all interviews. Probes were used sparingly and cautiously, while the impact of the interview on participants was closely observed.

Interview transcription in Khmer contributed to data familiarisation and immersion as the first post-interview stage of analysis. The transcripts were then translated into English by the researcher. The analysis underwent various stages of eidetic reduction and grasping of the constitution of objects of cognition (Husserl, 1990, pp. XIII). Eidetic reduction means ‘bracketing all contingent matters, instead attending only to the essential features of experience and things as they are given in experience’ (Smith, 2016, p. 18), therefore focusing on the essence of the phenomenon under investigation. At this stage, immersion through repeated listening and watching of the interviews allowed the researcher to live virtually through participants’ experiences. Sifting through different situations later helped to locate some common forms of those situations. The final stage was to ‘trace step by step the data... the simple and the compounded ones, those that so to say are constituted at once and those that essentially are built up stepwise’ (Husserl, 1990, p.10). The data were refined into their *essence*, which could be seen as a sense of self that ‘determines all the other particular features of the whole’ (Davydov, 2008, p. 103). This analysis resulted in interpreted narratives, written to tell each participant’s story from the researcher’s point of view. Such narrative notes (Agarwal & Sandiford, 2020) developed into narrative essences which contain the extracted essence from each idiographic analysis. After several transcripts, patterns of similarity or differences began to emerge, seasoned with notable outliers (Smith, et al., 2009), contributing to insight into the transition of learning and development. All of the essences were further explored through a ZPD framework.

The next section presents three narrative essences illustrating the process and outcome of this analysis, in line with Smith’s (2011) data presentation suggestions. This is followed by a discussion of the research’s implications and an outline of the study’s next stage. As a work in progress paper, this covers one phase of the research, rather than a completed study, seeking to stimulate discussion about the potential contribution to our understanding of the early experiences of graduate employees.

Narrative Essence 1: Grace's Price of Convenience

'I have been told that at workplace, [we] do not always meet easy [-going] people; some are afraid that we are better, so they make it uneasy for us, but for her, it's not a problem'

Grace followed her passion for travel by studying for a bachelor's degree in tourism and a degree in English as a Foreign Language. During her studies, she worked part-time in sales and later as assistant to her supervisor in a Japanese company. After graduation, due to the Covid-19 pandemic, she could not find a job in tourism. She joined a health company on a temporary contract substituting for an employee on a maternity leave.

Grace had been warned of workplace challenges and was initially pessimistic. This led her to be vigilant when interacting with colleagues ('we are quite afraid of them, we need to be cautious'). She built a good relationship with a co-worker who guided her ('like an older sister... she helps out. We eat together... There's closeness although we know [each other] a short time... she is easy-going'). The job was undemanding, unsatisfying and she felt it was not a graduate role ('a network company... [customers] are mostly sellers... have much free time ... not so happy... It feels like sitting and playing'). She perceived little chance for development ('I'm not sure if I know how to find the key to learn'). Because the job is temporary and she has little job satisfaction, she continued to search for a job more suited to her interest in travel ('I'm interested in... outside work... go to the community') and her desire to learn more ('[to] gain knowledge... experience in the workplace').

Analysis

Grace's *actual* development at the start of her full-time job consists of what she studied in tourism, her previous work experience and some workplace knowledge. Her studies at the university contributed to her *actual* development ('Soft skills, ... English... computer [skills]... communication skills... to communicate with customers, with co-workers... what we learned was from this bit and that bit, making our way of life [and] ways of talking better... helps in our work, making us learn quickly, easier to grasp'). Her work for the Japanese company also helped her develop as she learned

7. Teaching and Learning

about company processes and trained in sales-related work ('study company policy and understand teamwork ... contact customers... receive orders... similar to this new company. But over there, [I] learned a lot more because ... [they] have [morning] meeting... to talk about policy and work ... [for] the day ...the next day'). Although she minimised her university's role in developing social skills, she learned about personal workplace interaction from senior students, helping her to behave appropriately when starting work ('at [university] not so afraid of people being angry with us... but when we come to work... something we are not familiar with, [we] need someone to guide us').

Grace has not developed to her *potential* at her current workplace although she learned how to perform her role through her colleague's training. Her peer offered instruction in her work and even completed some tasks for her ('When I don't know or understand, she advises what should be done and how to talk to customers. She helps [me]'). This points to level 2 of ZPD interaction, where a more capable peer supports learning, enabling the learner to gradually take responsibility. However, she found her job too easy and soon learnt to engage with this unfamiliar system ('not difficult... just learn for a little while'). Although Grace learned skills, this could not actualise her *potential* because her *actual* development level was beyond the level of the tasks required; the job and her peer's instruction served more as induction than occupational learning.

Narrative Essence 2: Paula's strange new place

'I started to feel nervous. A protocol officer must know everything, and I didn't even know where beverages were stored'

Paula's enthusiasm for relationship building led her to study tourism. After graduation she joined a film research group where she had previously volunteered. This was an opportunity to experience different work contexts, including being a protocol officer serving government officials during a major national festival. This was an unfamiliar environment for her ('I'd never paid attention to such events'). Because she came from an unprivileged rural background, royal events seemed

7. Teaching and Learning

totally alien to her. She was given no formal training, which surprised her ('I looked to the left and looked to the right, looked at linen and carpet, and I wore little low heels and... folded skirt... check the carpet if [I] would trip over it'). She took the initiative to observe and learn, as was her habit from a very young age. Paula played her role carefully ('I pretended to be normal, pretended that I was used to working for the government'). Her communication and observation skills helped her navigate complex situations, if unsure seeking assistance ('I ran downstairs... [looking for] someone who seemed likely to be the beverage manager... [I] said "Beverages have run out, please bring them"... they said, "Wait a moment, I will bring them for you"'). She even supported other protocol officers ('[the king's torch] was lost, no one knew who had taken it... [I] saw it was put at the back... I said, "Is that the handle?" They said, "that's it, the torch"... I felt excited to help') and noticed where royal protocol could be improved ('the way they provided hospitality was... too simple'). This role is similar to her experience in the research group, where she performed her tasks independently and sought assistance only when needed. This way of working and learning allowed her to feel close to the group and wish to stay, even if she finds a new job, as it is an opportunity for new and different experiences.

Analysis

Paula's *actual* development when beginning her job included relationship building skills developed during her university studies. This, combined with aptitude in verbal communication and confident proactivity enabled her to learn from the work environment ('I'm really good at speaking... In my family, no one talks. I talk alone... while observing [my teacher working as tour guide] I would just want... to know a lot of people'). Graduation symbolised her intellectual development in tourism, particularly in public relations and self-guided development ('getting out of university and applying the knowledge in my everyday life like relationship building, and... courage... to talk... to make decision... when a supervisor [is not] nearby').

Paula's *potential* development seemed limited by a lack of formal instruction in her role, yet she developed by proactively seeking guidance from more capable others. She expected to learn from other people, even without formal training and scrambled to figure out protocol tasks from others at

7. Teaching and Learning

the event, signifying informal peer, rather than official, instruction ('[I] took the time to ask [a palace protocol officer], "when you serve the water, where should I go?" Because I was from the [government] and she was from the palace, she said, "oh this side is palace, so it's mine, I will serve"... [So], I took the opportunity to disguise and serve at [palace] side to get to know people's faces'). During this curiosity driven proactive role-crossing, she was able and happy to help palace protocol officers, thus empowering her own *actual* development.

Narrative Essence 3: Daisy's Homogeneity

'coming to this new place, I change more than before, quite more mature... in year 1 or 2, ... a lot of stress... talking to friends, but ... we all went in a circle, no one could save anyone'

Daisy's English was good, so she began a bachelor's degree in International Relations. Later she changed to Tourism and Hospitality as this seemed more fun and offered travel opportunities. In year 4, Daisy began her first full-time job at a bank. After eight months, she left the bank to focus on completing her studies. She had other reasons for resigning, too ('I met too many customers... worked in many fields... job was very difficult... issues with peers... overtime [work]... not really have [a] mentor'). After graduation, she looked for a non-customer-facing job, and found one in human resources. Although she perceived this new workplace as similar to the previous one ('I felt that moving to a new place is not much different, meeting the same people, similar atmosphere'), this time she found mentors to guide her ('I have a lecturer and friends... at higher levels, so they know ... They walk before me'). This time, she gained a deeper understanding of the workplace – the things to ignore and the things to focus on ('Some people, no matter what, never change... what is important is to know ourselves clearly, what type of people we get along with... what our goal is, do our work well, do not think too much... Soft skills are important; work practice will follow, but if our heart does not go forward, no matter how hard we push, nothing moves'). As her perspective shifted to a more positive one ('at my previous place... so much work that [I] decided to quit... Now... feeling

7. Teaching and Learning

that the more work... the more knowledge'), she starts to feel more mature and assured of a brighter future.

Analysis

Daisy's *actual* development when starting this position derived from both her studies and her experience working at a bank. Daisy's degree contributed to her *actual* development because she was confident about how she had applied her learning in her first job ('Listening to [lecturers made us] quick to adapt to all [situations]. What I have learned I can do it... we do not study ... one thing for one field like chemistry, physics... we studied broadly, so we can do any work').

Daisy's time at the bank also contributed to her *actual* development. ('I handled nearly everything related to accounting... dealing with customers, the internal [people]... there are people who like us, those who [don't]... others' team, our team'). When facing challenges, her supervisor offered advice, yet it did not help her beyond a level 1 ZPD interaction because her supervisor (adult) did not talk in Daisy's (child's) language and she found the advice unhelpful ('no one told me, just that my supervisor was there, telling [me] to "bear with it"'). He was probably unaware of her development needs, assuming she was familiar with social workplace contexts, while she struggled to normalise her experience; his statement was more of a consolation than an instruction.

Daisy's *potential* development during her second employment was also framed by previous university and work experiences. Although instruction from colleagues and management team catalysed her development, the foundation of her degree represents a key scaffold on which it was structured. Figuring out patterns of interpersonal relations at both workplaces cultivated her workplace attitude and modified her behaviour. This indicates independent problem-solving and the ability to develop her *potential* through a conceptual framework that helped her socialise herself ('wherever [we] go, [we] always meet these kinds of people, so we need to accept that they are like that. Do not mess with them and focus only on our work... In the past, [I] didn't think that way'). This development was also influenced by her co-worker/more capable peer who supported her ZPD learning ('he is open, and he helps out. He tells... what the problems are, making us understand first,

7. Teaching and Learning

then he tells how to do it and asks us back if there is a better way than this... asking ... different questions to make us think and he does not leave us alone'). This approach helped him to learn Daisy's language, enabling him to adjust his own to ensure understanding. This resembles a level 1 ZPD interaction. As a result, Daisy sensed development in herself, feeling more mature ('[I] realise I [thought] in a childlike manner [in the previous job]... [I] think that I am more mature than before... since working here'). She learned from a peer who had found his own place in a fractured environment ('he is independent... he has a team, but he also gets along with other teams too, in a way that is not partisan.'), and thus can integrate herself, physically and mentally into the workplace. So, Daisy has furthered her development with informal support from her colleague and from her management team whose instructions emerged within her ZPD. These two sources of instructions continue to contribute to her sense of maturity.

CONCLUDING DISCUSSION: Potentiality is the missing link

Analyses of narrative essences help make sense of the nature of learning and development in these participants' transitions through a ZPD lens (Vygotsky, 1987). Focusing on *potential* development as a key aspect of graduate employees' learning about their current and future work helps conceptualise their overall capability in a more nuanced way than simply focusing on existing capability. In other words, an effective education is crucial to setting a framework, or scaffold, for future workplace learning. So, although requiring workplace experience, graduates like these are more confident and able to seek peer-support and self-empowered observation and reasoning, even when formal instruction is lacking – their *potential* can be, itself, enhanced by a university education.

ZPD emphasises interactions between past, present and future (Stambulova, 2010), seeking to develop well-rounded individuals. As Vygotsky (1987, p. 211) posited, 'it is important to determine the lower threshold of instruction... [and] to determine the upper threshold of instruction. Productive instruction can occur only within the limits of these two thresholds.' One challenge for practitioners is to explore how to influence their employee's upper threshold (*potential*). Effective development

7. Teaching and Learning

within a workplace helps employees envisage their development opportunities, while requiring awareness of this *potential*. This resonates with Lave and Wenger's (1991) community of practice, where learning is both 'a process of socially shared cognition' and 'a process of becoming a member of a sustained community of practice' (Lave, 1991, p. 65). Thus, formal and informal learning opportunities, supported by peers' expertise enable newcomers to develop and grow as members of a community of practice (Jawitz, 2009).

Participants showed positive attitudes to development but were frustrated when challenging learning opportunities were lacking. The focus on development may contribute to interpersonal, occupational or even organisational loyalty as employees grow into a role. This is a key consideration for employers who may believe recruiting more experienced talent reduces the need for training; such a strategy would likely exclude recruits with much greater *potential*. Thus, work environments can provide a launching pad *or* a stumbling block for recent graduates lacking in experience; appropriate support and learning opportunities enable graduates to capitalise on their *actual* ability and available assistance to develop themselves towards their *potential*. Both independent and assisted learning are crucial to improve performance and strengthen connections between employee and workplace. Thus ZPD, by promoting collaborative learning environments, contributes to curriculum design supporting graduate work readiness and to employment practice in on-boarding, training and development.

The next phase of the research will continue to focus on participants' development through a ZPD lens, exploring how far their studies contribute to their occupational development. Interview analysis will continue, increasingly drawing from individual essences, interpretations and analyses to gradually explore cross-case phenomena, taking care to maintain idiographic depth and focus. As this continues, the researcher will catch up with participants, to track progress in their ongoing transitions.

REFERENCES

- Abeysiriwardhane, A., Lützhöft, M., Petersen, E.S. & Enshaei, H. (2016). Human-centred design knowledge into maritime engineering education; theoretical framework. *Australasian Journal of Engineering Education*, 21(2), 49–60.
- Agarwal, A. (2021). Understanding the value of an MBA by exploring the perspectives MBA students and graduates have of an MBA: an Interpretative Phenomenological Analysis. *Doctoral Thesis*. Adelaide, University of Adelaide.
- Agarwal, A. & Sandiford, P.J. (2020). Fictionalizing dialogue: interpretative phenomenological analysis in organizational research. *Qualitative Research in Organizations and Management*, 16(1), 218–236.
- Breive, S. (2020). Student-teacher dialectic in the co-creation of a zone of proximal development: an example from kindergarten mathematics. *European Early Childhood Education Research Journal*, 28(3), 413–423.
- Campione, J.C., Brown, A.L., Ferrara, R.A. & Bryant, N.R. (1984). The zone of proximal development: Implications for individual differences and learning. *New Directions for Child and Adolescent Development*, 1984(23), 77–91.
- Chaiklin, S. (2003). The Zone of Proximal Development in Vygotsky's Analysis of Learning and Instruction. In A. Kozulin, B. Gindis, V.S. Ageyev & S.M. Miller (Eds.), *Vygotsky's Educational Theory in Cultural Context* (pp. 39–64). New York, Cambridge University Press.
- Clapper, T.C. (2015). Cooperative-Based Learning and the Zone of Proximal Development. *Simulation & Gaming*, 46(2), 148–158.
- Davies, H.M. & Sandiford, P.J. (2014). Legitimate peripheral participation by sandwich year interns in the national health service. *Journal of Vocational Education & Training*, 66(1), 56–73.
- Davydov, V.V. (2008). *Problems of developmental instruction*. New York, Nova Science Publishers.
- Dehghansai, N., Headrick, J., Renshaw, I., Pinder, R.A. & Barris, S. (2020). Olympic and Paralympic coach perspectives on effective skill acquisition support and coach development. *Sport, Education and Society*, 25(6), 667–680.
- Eatough, V. & Smith, J.A. (2017). Interpretative phenomenological analysis. In C. Willig & W.S. Rogers (Eds.), *The SAGE Handbook of qualitative research in psychology* (pp. 193-209). London, SAGE Publications.
- Eun, B. (2019). The zone of proximal development as an overarching concept: A framework for synthesizing Vygotsky's theories. *Educational Philosophy and Theory*, 51(1), 18–30.
- Fourie, I. (2013). Twenty-first century librarians: time for Zones of Intervention and Zones of Proximal Development?. *Library Hi Tech*, 31(1), 171–181.

7. Teaching and Learning

- Goggin, T., Rankin, S., Geerlings, P. & Taggart, A. (2016). Catching them before they fall: A Vygotskian approach to transitioning students from high school to university. *Higher Education Research and Development*, 35(4), 698–711.
- Groot, F., Jonker, G., Rinia, M., ten Cate, O. & Hoff, R.G. (2020). Simulation at the Frontier of the Zone of Proximal Development: A Test in Acute Care for Inexperienced Learners. *Academic Medicine*, 95(7), 1098–1105.
- Hopkins, M. (2013). Programming in the zone: Repertoire selection for the large ensemble. *Music Educators Journal*, 99(4), 69–74.
- Hung, D.W.L. & Chen, D.T. (2001). Situated cognition, Vygotskian thought and learning from the communities of practice perspective: Implications for the design of web-based e-learning. *Educational Media International*, 38(1), 3–12.
- Husserl, E. (1990). *The idea of phenomenology* (1st Ed.). Dordrecht, Springer Netherlands.
- Jawitz, J. (2009). Learning in the academic workplace: The harmonization of the collective and the individual habitus. *Studies in Higher Education (Dorchester-on-Thames)*, 34(6), 601–614.
- Kantar, L.D., Ezzeddine, S. & Rizk, U. (2020). Rethinking clinical instruction through the zone of proximal development. *Nurse Education Today*, 95, 104595–104595.
- Lave, J. (1991). Situating learning in communities of practice. In L.B. Resnick, J.M. Levine & S.D. Teasley (Eds.). *Perspectives on socially shared cognition* (pp. 63–82). Washington, American Psychological Association.
- Lourenco, O. (2012). Piaget and Vygotsky: Many resemblances, and a crucial difference. *New Ideas in Psychology*, 30(3), 281–295.
- McCormick, J.E. (2009). *Individual vulnerability and dissociative-like experiences in regular and problem gamblers*. [Doctoral dissertations, University of Adelaide]. University of Adelaide Digital Theses.
- Mcperson-Bester, K.A. (2019). A case study of teachers engaged in the Zone of Proximal Teacher Development during collaborative professional development. [Doctoral dissertations, Northcentral University]. ProQuest Dissertations Publishing.
- Meyerson, B.E., Haderxhanaj, L.T., Comer, K. & Zimet, G.D. (2018). Learning in the zone: Toward workforce development of evidence-based public policy communication. *BMC Public Health*, 18(1), 700–700.
- Neubauer, B.E., Witkop, C.T. & Varpio, L. (2019). How phenomenology can help us learn from the experiences of others. *Perspectives on Medical Education*, 8(2), 90–97.
- Pagnini, F., Gibbons, C.J. & Castelnuovo, G. (2012). The importance of an idiographic approach for the severe chronic disorders- The case of the amyotrophic lateral sclerosis patient. *Frontiers in Psychology*, 3, 509-509.

- Shinebourne, P. (2011). Interpretative Phenomenological Analysis. In N. Frost (Ed.), *Qualitative research methods in psychology: Combining core approaches* (pp. 44-65). Maidenhead, Open University Press.
- Smith, J.A. (2011). Evaluating the contribution of interpretative phenomenological analysis. *Health Psychology Review*, 5(1), 9–27.
- Smith, J.A. (2016). *Experiencing phenomenology: An introduction* (1st Ed.). London, Routledge.
- Smith, J.A., Flowers, P. & Larkin, M. (2009). *Interpretative phenomenological analysis: theory, method and research*. Thousand Oaks, CA, Sage.
- Smith, J.A. & Osborn, M. (2008). Interpretative Phenomenological Analysis. In J.A. Smith (Ed.), *Qualitative psychology: A practical guide to research methods* (2nd Ed.) (pp. 53-80). London, SAGE.
- Smith, J.A. & Shinebourne, P. (2012). Interpretative phenomenological analysis. In H. Cooper, P.M. Camic, D.L. Long, A.T. Panter, D. Rindskopf & K.J. Sher (Eds.), *APA handbook of research methods in psychology, vol. 2, Research designs: Quantitative, qualitative, neuropsychological, and biological* (pp. 73-82). Washington DC, American Psychological Association.
- Stambulova, N. (2010). Counseling athletes in career transitions: The five-step career planning strategy. *Journal of Sport Psychology in Action*, 1(2), 95–105.
- Stylidis, D., Woosnam, K.M. & Tasci, A.D.A. (2021). The effect of resident-tourist interaction quality on destination image and loyalty. *Journal of Sustainable Tourism*. DOI: 10.1080/09669582.2021.1918133.
- Tharp, R.G. & Gallimore, R. (1988). *Rousing Minds to Life: Teaching, Learning, and Schooling in Social Context*. Cambridge, Cambridge University Press.
- Vygotsky, L.S. (1978). *Mind in society: the development of higher psychological processes* (M. Cole, V. John-Steiner, S. Scribner & E. Souberman Eds.). Cambridge, Harvard University Press.
- Vygotsky, L.S. (1987). *The collected works of L. S. Vygotsky problems of general psychology, including the volume thinking and speech* (1st Ed.) (R.W. Rieber & A.S. Carton, Eds.). New York, Plenum Press.
- Warford, M.K. (2011). The zone of proximal teacher development. *Teaching and Teacher Education*, 27(2), 252–258.
- Wertsch, J.V. (1993). *Voices of the mind a sociocultural approach to mediated action* (1st Harvard University Press Ed.). Harvard University Press, Cambridge, MA.
- Wertsch, J.V. (2008). From social interaction to higher psychological processes: A clarification and application of Vygotsky’s theory. *Human Development*, 51(1), 66-79.

7. Teaching and Learning

Williams, S. (2016). Teaching nursing skills in the clinical environment. *Veterinary Nursing Journal*, 31(4), 118–121.