



Learning to supervise: four journeys

Gill Turner

To cite this article: Gill Turner (2015) Learning to supervise: four journeys, *Innovations in Education and Teaching International*, 52:1, 86-98, DOI: [10.1080/14703297.2014.981840](https://doi.org/10.1080/14703297.2014.981840)

To link to this article: <https://doi.org/10.1080/14703297.2014.981840>



Published online: 21 Jan 2015.



Submit your article to this journal 



Article views: 743



View Crossmark data 



Citing articles: 12 View citing articles 

Learning to supervise: four journeys

Gill Turner*

Oxford Learning Institute, University of Oxford, Oxford, UK

This article explores the experiences of four early career academics as they begin to undertake doctoral supervision. Each supervisor focused on one of their supervisees and drew and described a Journey Plot depicting the high and low points of their supervisory experience with their student. Two questions were addressed by the research: (1) How do early career academics experience doctoral supervision? (2) What challenges do early career academics face as they learn to supervise? Analysis of the data confirmed new supervisory experiences as variable, personalised, and emotional and further identified them as marked by agency and resilience, with time an important factor in supervisor development. Three common areas of challenge were noted: unrealised supervisory expectations, student-supervisor relationships, and commitment. Navigating these challenges was key to these individuals developing their expertise as doctoral supervisors.

Keywords: doctoral supervision; early career academics; challenges; agency; resilience; Journey Plot

Introduction

Globally, with innovation and research increasingly viewed as key to economic prosperity, well-trained postgraduate researchers are required both in and outside academia (Nerad, 2006; Sadlak, 2004). Consequently, equipping doctoral students with a wide range of research and personal skills and competencies, in a more timely manner, is a focus for many doctoral educators (European University Association, 2007; Quality Assurance Agency for Higher Education, 2012). This emphasis has put the quality of supervision under the spotlight, since it is acknowledged that supervision is important to student progress (Holbrook, Bourke, & Cantwell, 2006; Kehm, 2004; West, 1998), and led some countries to develop initiatives to enhance the standard of doctoral education and researcher training (Higher Education Support Act, 2003; Quality Assurance Agency for Higher Education, 2012). These initiatives can include the need for doctoral supervisors to possess appropriate skills and subject knowledge for their role and to be appropriately supported and developed through training, mentoring or co-supervision (Quality Assurance Agency for Higher Education, 2012). Accordingly, it is increasingly important to address the inexperience of new doctoral supervisors and ascertain how well they are equipped for the role, how they learn to supervise, and how their development can be effectively supported.

*Email: gill.turner@learning.ox.ac.uk

New supervisors

Early career academics (research staff and new lecturers) frequently undertake doctoral supervision, often not long after having completed their own doctoral study. Even as new supervisors, whether co-supervising or not, they assume substantial responsibility for the progress of their students' doctoral thesis and development. Yet the complexities involved in learning doctoral supervision are only now being explored. Drawing primarily on their own experience of being a doctoral student, new doctoral supervisors begin to supervise with limited or no systematic preparation for the role (Amundsen & McAlpine, 2009; Peelo, 2011). Their experience is noted as opaque, private, and emotional: there is a lack of clarity concerning standards expected of doctoral theses (Amundsen & McAlpine, 2009) and little guidance on whether they are 'doing it right' (Blass, Jasman, & Levy, 2012); the supervision process is perceived as personal (Blass et al., 2012) requiring individuals to make sense of the role often in isolation from other people (Amundsen & McAlpine, 2009); disappointment and struggle (Sambrook, Stewart, & Roberts, 2008) and self-doubt and anxiety are apparent (Blass et al., 2012), whilst tensions and challenges of the role occur as frequently as pleasures (Amundsen & McAlpine, 2009). However, despite supervision being a sometimes bewildering and unsupported experience, new doctoral supervisors learn the role primarily in and through their on-the-job experiences (Amundsen & McAlpine, 2009; Blass et al., 2012; Peelo, 2011).

These studies have begun to document what is straightforward or difficult about learning to supervise. Predominantly this has been accomplished by considering *broad* accounts of supervision, i.e. the *range* of experiences and perceptions described by new supervisors in relation to their role or a *single instance* from which something was learned. This study used a different approach i.e. it explored the *sole* experience of supervising *one* doctoral student *over time* through the metaphor of a 'journey'. It is set in a UK context where coursework is minimal, supervision is the main method of teaching doctoral students and students are expected to complete their thesis within a three year timeframe.

The metaphor of a journey

Using the metaphor of 'a journey', experience can be likened to a journey where an individual, alone or accompanied, is 'moving from one place to another', over time (Miller & Brimicombe, 2003). This journey involves endings and beginnings, is sometimes into the unknown, and can entail loss and retrieval, change and renewal, disorientation and displacement (Batchelor & Di Napoli, 2006). Thus recounting a journey can identify important aspects such as milestones and events, uncover the emotions, intensity, complexity, impact and meaning involved, and promote self-awareness and problem solving. Furthermore, when a journey is related to others, it can act as a map or guide for those embarking on something similar. Thus, having been used to help conceptualise the PhD process (Miller & Brimicombe, 2003) and investigate undergraduate experience of research projects (Shaw, 2009), the metaphor of a journey seemed appropriate for considering further the experiences of new doctoral supervisors.

Approach

Research questions

The research considered two questions:

- How do early career academics experience doctoral supervision?
- What challenges do early career academics face as they learn to supervise?

Participants

In 2008, 11 early career academics (research staff and new lecturers) from one UK research intensive university took part in a study exploring the experiences of new doctoral supervisors. These individuals were selected on the basis of supervising at least one doctoral student and having no more than 6¹ years' research supervision experience. In 2012 four of these participants agreed to be re-interviewed and are the focus of this paper. One purpose of these interviews was to explore each participant's recollection of supervising a doctoral student from the beginning of the doctorate through to completion. In each case, the supervisor chose to talk about a student they were supervising in 2008 and, hence, to provide additional context for understanding each participant's narrative. Table 1 depicts each supervisor's background at the time of this supervisory experience and as at 2012 when re-interviewed.

Method

A non-traditional visualisation method, called a Journey Plot, was used to explore participants' experiences of supervising one supervisee over time. The Journey Plot is a graph with the variable 'time' along the horizontal axis and the variable 'highs and lows of experience' along the vertical axis. On this graph individuals draw their experience as represented by the two variables. Thus it retrospectively captures an experience over time in a visualised format. In this study participants were asked to reflect on their supervision of a doctoral student who had completed their thesis or was close to doing so (Brad, Eleanor and Tania chose their first-ever doctoral student whilst Monty described his first experience of supervising a student without a co-supervisor) and, on the Journey Plot, to '*Draw the highs and lows of your experience of supervising your doctoral student from the time you first became their*

Table 1. Participants as at 2008 (2012).

Alias	Field	No. doctoral students	No. doctoral students supervised to completion	No. years as supervisor	Attended introductory supervision training	Sole or co-supervisor
Brad	Humanities	3 (6)	0 (3)	5 (9)	No	Sole
Eleanor	Social science	1 (4)	0 (0)	2 (6)	Yes	Sole
Monty	Physical science	4 (6)	2 (3)	6 (10)	Yes	Sole
Tania	Medical science	1 (3)	0 (1)	1 (5)	Yes	Co-supervisor

supervisor to the time of completion (or today, whichever is the sooner). Please label the high and low points' (Figure 1). Participants were then asked to describe what they had drawn and the interviewer explored this further through questions and prompts. The method was set within an otherwise traditional interview setting which explored other aspects of supervisory experience; the interview was audio recorded and transcribed.

Analysis

The data were analysed in three stages.

Firstly, the shape and depth of each Journey Plot were considered in order to infer something of the rhythm, tempo and intensity of an individual's experience. Rhythm, observed from the various highs and lows over time, denotes how constant or changeable the experience appeared. Tempo, construed from the gradient of the plot, concerns how quickly the experience seemed to change. Intensity, associated with the relative height or depth of each high and low, concerns how extreme the experience seemed.

Secondly, the oral description of the drawing contained in each transcript was reviewed to further illuminate the visual representation. How the high and low points in the Journey Plot came about, how they were built on or resolved, and the emotions of and learning that arose from the experience were noted. In this way each supervisor's visual representation of their experience was made more explicit.

Thirdly, the oral descriptions were reviewed to identify the challenges encountered and the ways these were handled. A thematic analysis familiar in narrative research was used, aimed at 'keeping a story intact by theorising from the case

On the diagram below draw the highs and lows of your experience of supervising your doctoral student from the time you first became their supervisor to time of completion (or today, whichever is the sooner). Please label the high and low points.

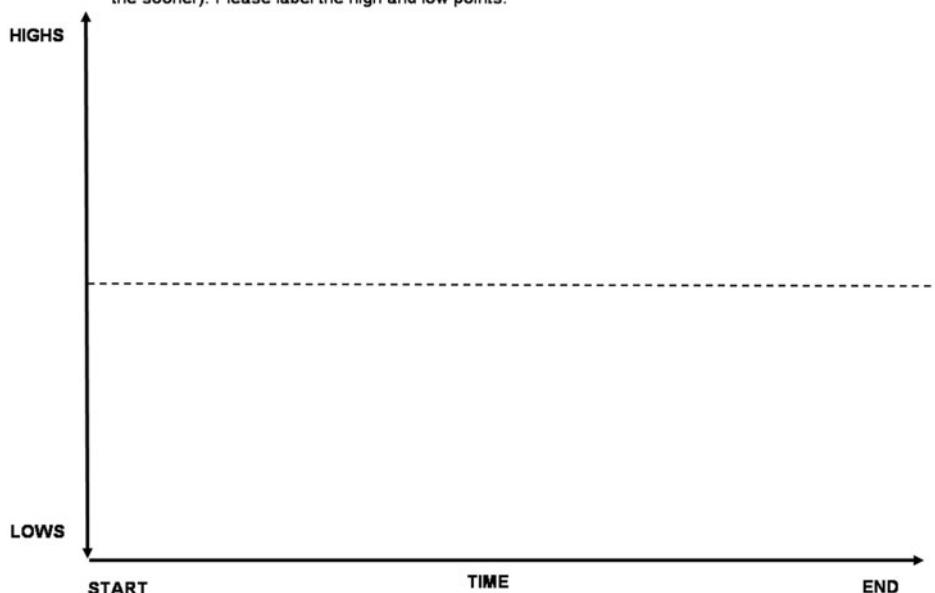


Figure 1. Journey Plot.

rather than from component themes across cases' (Reissman, 2008, p. 53). This involved organising the data firstly on a participant by participant basis by creating cameos of each individual's complete experience. Then a cross-individual comparison was conducted to move beyond the particulars of any one individual towards an understanding of common patterns, thus identifying the challenges experienced by all participants. Finally, a revised, targeted cameo was written for each participant to illustrate aspects of the findings.

Findings

Journey Plot insights

Analysis of the Journey Plots provided two insights into the nature of the experiences of new supervisors: firstly that it is variable; secondly that it is personalised.

Variable nature

Each Journey Plot provided a unique visual representation of a participant's experience and offered a clarity and succinctness not so immediately available from a dialogue. By considering the rhythm, tempo and intensity of a Journey Plot the variable nature of any one individual's experience across time was observed.

Thus, Monty's Journey Plot (Figure 2) suggests the following about his supervisory experience. Three clear highs (*excitement with new project*, *unnamed, thesis completion*) and two clear lows (*initial slow progress* and *start of thesis writing*) at the start and end of the journey surround a series of mini-highs and lows (*development of student research skills*), indicating a rhythm of experience that was changeable over time. The steep lines between the clear highs and lows suggest a

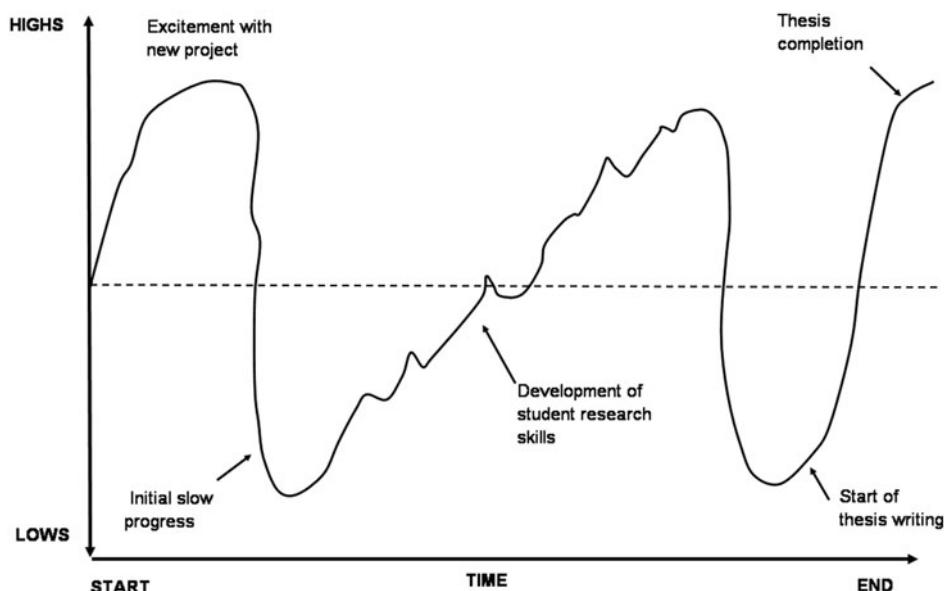


Figure 2. Monty's Journey Plot.

rapid tempo with changes in experience occurring quickly at the start and end of the time period, whilst the more moderately sloping upward line in the middle suggests a slower, more enduring tempo with changes occurring gradually. The more extreme height and depth of each clear high and low suggest experiences of extreme *intensity* whilst the vertical distance between some of these high and low points (*excitement with new project* and *initial slow progress*; *unnamed* and *start of thesis writing*; *start of thesis writing* and *thesis completion*) indicates a considerable swing in experience.

The visual representation was made more explicit by the oral description which articulated what was involved in navigating this experience, as Monty's cameo illustrates (points in Journey Plot emphasised in italics):

Monty's supervisory experience of this student was 'stressful but successful in the end!' As the first occasion where he was 'defining the project', he was unaware of the 'time lag' involved in developing a bright graduate student with undergraduate level skills into a post-graduate student with doctoral level research skills. He went quickly from *excitement with new project* to feeling 'shocked' and 'frustrated' at the *initial slow progress* where nothing seemed to be happening. His 'expectation levels were quite high' but he soon recognised that, for the student, 'there's a huge, huge learning curve to go up ... as a supervisor, you take [the skills] for granted and forget where they're starting from'. Eventually with encouragement, she made progress (*development of student research skills*) and gained confidence. He began to 'sit back and enjoy' the situation, directing things less as the student ran the project more herself and engaged in 'much higher level, enjoyable discussions of science' (*unnamed high point*). Enjoyment faded with the *start of thesis writing*. Having developed into an 'effective scientist' and written a couple of papers, Monty believed the student would 'write a nice thesis now' but was 'shocked' with the first draft, realising 'This is going to be a lot of work isn't it?' Following guidance from him on the structure and style of writing the experience finished with a successful *thesis completion*. Reflecting that supervision of all his supervisees follows a similar pattern, he now devises 'get your feet wet' projects to give students something manageable early on, for learning the equipment, collecting and discussing data, and encouragement.

Personalised nature

The second aspect highlighted by the Journey Plots was the personalised nature of the experiences, i.e. it varied between different individuals. Although a lack of an accurate timeline for each plot demands caution in drawing conclusions from the data, similarities and differences in the experiences of the different supervisors can be seen, both in the rhythm, tempo and intensity of the journeys and the occasions giving rise to the highs and lows. For instance, Monty's Journey Plot (Figure 2, described earlier) is different from Brad's (Figure 3) which depicts little change in rhythm, tempo or intensity with only a couple of relative low-key high points at the *end of MSt* (Masters study) and *completion*, and an apparent enduring stable experience of a slightly downbeat nature in between; the only common points are noted at the start (Monty – *excitement with project*; Brad - *end of MSt*) and end (Monty – *thesis completion*; Brad – *completion*) of each doctoral journey.

Tania's Journey Plot (Figure 4) had an undulating pattern similar to Monty's (Figure 1) and is annotated with similar issues at the low points (*technical/ skills difficulties* and *writing struggles*). However, Eleanor's experience (Figure 5) differs from the others, displaying a repeating rhythm and regular tempo which starts at an intense low point and acquires a more upbeat nature over time, passing issues to do with *lab work*, *data analysis* and *writing* along the way.

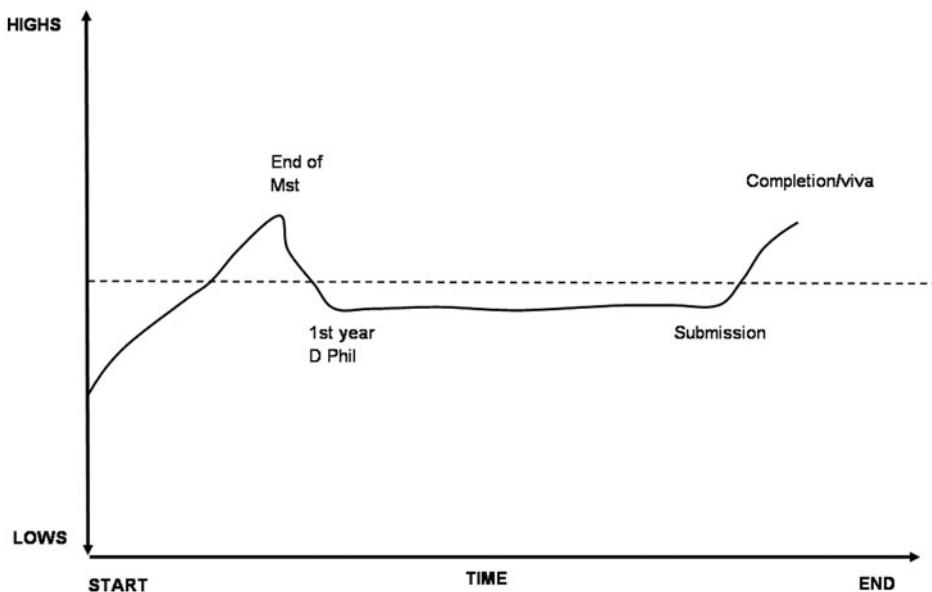


Figure 3. Brad's Journey Plot.

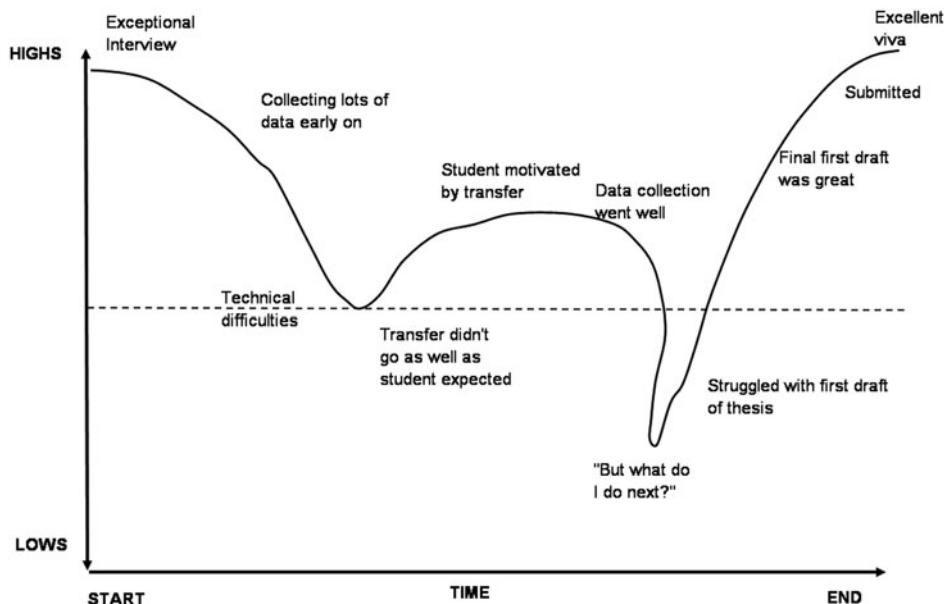


Figure 4. Tania's Journey Plot.

This personalisation was also noted across the oral descriptions. For instance, whilst Monty expressed shock at his student's *initial slow progress* Tania withheld her student's *technical difficulties* because she knew it was normal. Brad described his student's work as competent but found their relationship difficult, and tried to

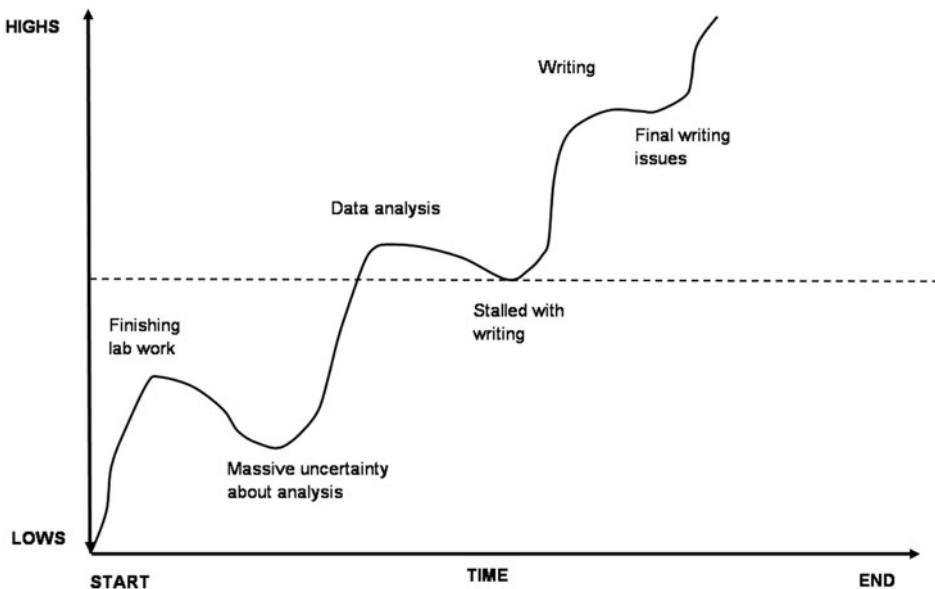


Figure 5. Eleanor's Journey Plot.

make it as functional as possible without worrying too much; in contrast Eleanor considered her student's work to be continually problematic but was motivated by their good social relationship to keep going.

Challenges

The thematic analysis identified three challenges common to each participant – to their expectations, student-supervisor relationship and commitment. These challenges and how they were handled are now elaborated, supported by cameos of participants' experiences; in these the emotions, agency and resilience involved in the experiences become clear.

Expectations

Participants anticipated the supervisory experience would be relatively straightforward. Informed by their own PhD experience, where they had not considered themselves to be a problem student, as supervisors they expected to be excited by their student's project, to engage in stimulating discussions with their student, and to reach the limits of what they themselves could do intellectually. They expected to provide guidance and ideas, to recommend books, and even to encounter difficulty at a specific time (e.g. thesis writing) but, mainly, each anticipated their student would require minimal input, be ready to start with the appropriate abilities and aptitudes, and make smooth progress towards the doctorate. Reality was different and emotional: necessary student skills and knowledge were missing and had to be taught by the supervisor (frustration for Monty and Eleanor); a student regularly ignored the supervisor's input (tough for Brad); and an existential crisis left one student demotivated and struggling (very stressful for Tania). Confronted with this

challenge, participants reviewed their expectations, and sought solutions, even though their efforts were not always successful. In this cameo Brad reflects on, responds to and reconciles his situation:

Based on his own doctoral experience Brad thought doctoral supervision would be quasi-collegial and intellectually stimulating, requiring a light touch and minimal intervention such as providing a book or an idea and seeing the student ‘run with it … as I did’. Instead he found it ‘a stagnant deal’ – the supervisee ignored suggestions and feedback and avoided intellectual engagement, leaving Brad feeling he was not ‘doing the job that I wanted to do … to help his project be better’. Seeking a solution, he talked informally with colleagues, receiving useful, practical advice, an acknowledgement of the difficult situation, and support that provided security and confidence in his position. Time passed without any change and Brad became resigned to the dynamics. Recognising the student’s work was competent he resolved ‘unremitting engagement with the problem … [to] tirelessly keep dealing with it’ and to make the relationship ‘as functional as possible, to do your best and not worry too much’ until eventually the thesis was done – which was ‘a high point’. Hindsight and subsequent supervisees highlighted more assertive and constructive ways he could have handled the situation but, likening supervision to ‘managing people’, he perceived that as a young supervisor at the beginning of his career with no model to draw on other than his own smooth doctoral experience he was ill-prepared for dealing with problem students and ‘you just can’t snap your fingers and transform [just] like that’.

Student-supervisor relationship

All four participants struggled with the relationship they had with their supervisee, finding it required perseverance and resilience. Unmet expectations, other difficulties and the student’s own hopes prompted participants to appraise the way they related to their student, which sometimes impacted the actions they desired to take. Monty developed a business-like relationship, contrary to his student’s expectations, and when his frustration with the supervisee’s slow progress put the student under pressure he realised he needed to draw back and give the student space to calm down. Brad endeavoured to stimulate a collegial relationship with his supervisee but, without cooperation from his student, was unsuccessful and reluctantly accepted that the relationship was not going to be great. Eleanor had a strong personal relationship with her student but found this intimacy a stumbling block since the student’s ongoing under-performance signified the doctorate should be terminated. Whilst participants understood that natural affinity is important in supervision, they were beginning to realise the need also to manage people. However their limited experience of managing people meant they had to learn as the relationship developed, by reviewing their own interpersonal style, adapting their preferences to accommodate the circumstances and reflecting on the experiences to inform future relationships. Here is Tania’s experience:

Tania was very hands-on with her first supervisee, establishing a good working relationship that enabled the student to ‘come and talk to me’. To help her supervisee ‘find her feet’ Tania created a project she was ‘fairly confident’ would work and found it ‘gratifying’ when her student ‘got results’. Later the student encountered difficulties collecting her data, but Tania ‘pretty much rode out’ the experiences observing that ‘almost every student, including myself, has technical problems at some point’. However, this supervision changed unexpectedly when the student’s post-doctoral plans collapsed. Usually ‘very self-contained’ the student became ‘very personally distressed’ and had a ‘mini-meltdown’ in front of Tania. Owing to their close relationship ‘we

talked quite frankly about how [the student] was feeling ... there wasn't anything else you could do' but Tania found the experience stressful and it affected their subsequent communications 'because [the student] was upset ... that was difficult to deal with'. Eventually, the student recovered to submit her thesis, 'her viva was stellar', and 'she's very happy at the moment'. Reflecting on this for future student-supervisor relationships Tania notes 'I've learnt to be more objective and less personally involved ... it's not good to be too close because you can't really advise them in a professional context ... but you have to try and understand where somebody's coming from in order to work out how you can work together to get their thesis forward'.

Commitment

When the experience was hard going or contrary to expectations, participants sometimes evaluated their motivation for doctoral supervision. Finding situations frustrating and even relentless challenged their commitment to supervision and demanded resilience from them as they sought something worthwhile about remaining engaged in the process. When Tania could not influence her student's progress as she had hoped she determined, instead, to align herself more with her student's expectations and objectives than her own so the doctorate would be accomplished. Brad experienced a complete lack of intellectual stimulation with his supervisee but remained committed because he recognised that the work was competent. Monty described his student as a negative asset, finding the effort involved in supervising outweighed the student's contribution to the wider research project but reconciled this with doctoral supervision being partly about teaching and educating the student, which he enjoyed. Such experiences and subsequent reflection influenced participants' decisions concerning supervision of future students:

Eleanor's supervisee lacked a Master's degree which proved problematic, highlighting her uncertainty over data analysis and academic writing and causing her to stall at several key points during her study. Consequently, Eleanor 'basically had to teach her a Master's course on the way ... but somehow it wasn't getting in'. However, supported with advice from colleagues and her mentor, she frequently chased up the student and progress occurred. Although Eleanor became more positive over time the experience was 'rocky all the way through'. She had expected supervision to 'be me reaching the limits of what I can do intellectually and that wasn't it at all. It was much more basic.' Occasionally, Eleanor considered orchestrating a situation to trigger the student's withdrawal from study but desisted, partly because she had a good 'social relationship' with the student and partly because she needed the student 'to complete and be successful' because the doctoral work contributed to Eleanor's bigger research project. On reflection, having other supervisees with Master's degrees, she observed their 'readiness to do something on the scale of a PhD ...' and would now avoid supervising a student without one.

Discussion and conclusion

This paper reports on four new doctoral supervisors' journeys of supervising a student over time. It tells their stories of learning to supervise and identifies their experiences as variable, personalised, emotional, agentive and resilient with common challenges being to expectations, student-supervisor relationships, and commitment.

These journeys confirm much of what is known about learning to supervise. It was tough and participants were relatively unprepared (despite three having attended an introductory supervision training session) and lacked adequate formal support

(Amundsen & McAlpine, 2009; Peelo, 2011). Their initial practice emerged from their prior experience as a doctoral student but their on-going transition was informed by their ‘on-the-job’ experience as a supervisor and, occasionally, the experience of their colleagues, affirming the importance of workplace learning in becoming a supervisor (Amundsen & McAlpine, 2009; Blass et al., 2012; Peelo, 2011). The highs and lows of the journey evidence the tensions, challenges, pleasures and emotions previously noted in the role (Amundsen & McAlpine, 2009; Sambrook et al., 2008) whilst the variable and personalised nature of the journeys echo Blass et al. (2012) perceptions of a personal experience.

Yet the journeys also reveal previously unhighlighted aspects of new doctoral supervisory experience. Firstly, individuals were agentive, setting goals and directing action towards them in respect of helping their student progress their doctorate (e.g. Eleanor teaching a Master’s course to her student), achieving their own aspirations (e.g. Brad seeking colleagues’ advice to improve the student-supervisor relationship), and determining plans for future students (e.g. Monty devising ‘get your feet wet’ projects). These actions were not always successful (Brad’s relationship remained difficult) or desired (Eleanor preferred her student to drop out) but showed individuals’ willingness to manage their situations despite constraints (student’s unwillingness to engage) and competing objectives (student’s work contributes to a wider project) and resolve to learn from experience and construct the future differently (e.g. Eleanor only supervising students with Master’s degrees). Such behaviour, in theoretical terms, characterises reflective practice whereby critiquing ones reality through observation and reflection informs practice and beliefs and enables new plans and actions to be tested and implemented (e.g. Kolb, 1993; Schön, 1991).

Secondly, resilience – the capacity to withstand stress and difficulties – was evident in respect of both one-off (e.g. Tania’s student’s ‘mini-meltdown’) and persistent (e.g. Brad’s ‘stagnant deal’) challenges. Instead of capitulating individuals confronted challenges with perseverance (Brad’s ‘unremitting engagement’), different thinking (Monty acknowledging his student’s skills level), better self-management skills (Tania becoming more objective), and more knowledge (Eleanor seeking colleagues’ advice). Such resilience maintained their commitment to the supervisory process and enabled their continued engagement in the supervisory role. This quality of resilience can be considered important given the time pressures in these particular contexts where supervision was undertaken in addition to a full academic workload and with expectations of doctoral completion within three years, all potentially adding to the stress and emotion of the experience.

The challenges these individual’s encountered were key markers in the way they learned to supervise. Engaging with the challenges encouraged individuals to reconsider expected or desired outcomes and ways of doing things and persuaded them to explore and adopt alternative considerations of and approaches to supervision. In so doing individuals moved from the supervisory scenario predicated on the view obtained when a PhD student towards a new way of perceiving supervision from the reality of being a supervisor. Facing and contending with the wider than assumed range of likely supervisory experience, and the attendant possibilities and constraints for developing practice, facilitated the development of their supervisory expertise.

Additionally, the journeys allude to the importance of time to learning to supervise. By focusing on one supervisory experience from start to finish, rather than a single supervisory incident, the duration and the inter-connectedness of various

aspects (e.g. emotions, challenges, agency, resilience) of learning to supervise become apparent.

Whilst it may be imprudent to infer too much from such a small number of new supervisors, it is worth speculating how these findings might inform supervisor development, especially since some of the challenges are likely to recur throughout a supervisor's career (e.g. the student-supervisor relationship). Firstly, new supervisors could benefit from being advised by mentors, co-supervisors, and educators that learning to supervise is likely to:

- take time;
- be challenging;
- require resilience and agency;
- be emotional;
- be a personalised journey based on what is most appropriate for them and their circumstances;
- benefit from drawing on the support and experience of more experienced supervisors.

Such advice may alleviate some of the anxiety of the unknown, encourage individual new supervisors that they are not alone or unusual in their experience, and enable them to seek help and develop different views and approaches to further their practice.

Secondly, introducing new supervisors to the notion of reflective practice should help raise their awareness of their professional development as supervisors and equip them with a tool to begin accomplishing this.

Finally new supervisors, individually or in peer groups, could use a Journey Plot to reflect on their experience with each supervisee. This could highlight what they have learned and what might be useful for shaping other supervisory experiences, thus aiding their understanding of supervision; it could also identify where they need help, giving them a clearer sense of what support to seek for their development as supervisors.

Note

1. 6 years was a pragmatic decision to ensure a large enough pool of potential participants but with the expectation that few would have supervised any students to completion.

Notes on contributor

Gill Turner is a researcher at the University of Oxford. She is currently researching the experiences of early career academics (doctoral students, post-doctoral researchers, new lecturers) with a particular emphasis on those new to doctoral supervision.

References

- Amundsen, C., & McAlpine, L. (2009). 'Learning supervision': Trial by fire. *Innovations in Education and Teaching International*, 46, 331–342.
- Batchelor, D., & Di Napoli, R. (2006). The doctoral journey: Perspectives. *Educate*, 6, 13–24.
- Blass, E., Jasman, A., & Levy, R. (2012). Supervisor reflections on developing doctoralness in practice-based doctoral students. *Quality Assurance in Education*, 20, 31–41.

- European University Association. 2007. *Doctoral programmes in European universities: Achievements and challenges*. (Report prepared for European Universities and Ministers of Higher Education). Retrieved from www.eua.be/fileadmin/user_upload/files/Publications/Doctoral_Programmes_in_Europe_s_Universities.pdf
- Higher Education Support Act 2003 – Other Grants Guidelines (Research). 2012. Commonwealth of Australia. Retrieved from <http://www.comlaw.gov.au/Details/F2012L02010>
- Holbrook, A., Bourke, S., & Cantwell, R. (2006). Using research candidate annual report data to examine supervision effectiveness. In M. Kiley & G. Mullins (Eds.), *Quality in postgraduate research: Knowledge creation in testing times* (pp. 83–98). Canberra: CEDAM, The Australian National University.
- Kehm, B. M. (2004). Developing doctoral degrees and qualifications in Europe: Good Practice and issues of concern – a comparative analysis. In J. Sadlak (Ed.), *Doctoral studies and qualifications in Europe and the United States: Status and prospects* (pp. 279–298). Bucharest: UNESCO-CEPES.
- Kolb, D. (1993). The process of experiential learning. In M. Thorpe, R. Edwards, & A. Hanson (Eds.), *The culture and processes of adult learning* (pp. 138–156). London: Routledge.
- Miller, N., & Brimicombe, A. (2003). Mapping research journeys across complex terrain with heavy baggage. *Studies in Continuing Education*, 26, 405–417.
- Nerad, M. (2006). Globalisation and its impact on research education: Trends and emerging best practices for the doctorate of the future. In M. Kiley & G. Mullins (Eds.), *Quality in postgraduate research: knowledge creation in testing times* (pp. 11–12). Canberra: CEDAM, The Australian National University.
- Peelo, M. (2011). *Understanding supervision and the PhD*. London: Continuum International Publishing Group.
- Quality Assurance Agency for Higher Education. (2012). The UK quality code for higher education: Chapter B11: Research degrees. Retrieved from the Quality Assurance Agency website: <http://www.qaa.ac.uk/Publications/InformationAndGuidance/Documents/B11.pdf>
- Reissman, C. K. (2008). *Narrative methods for the human sciences*. London: Sage.
- Sadlak, J. (Ed.). (2004). *Doctoral studies and qualifications in Europe and the United States: Status and prospects*. Bucharest: UNESCO-CEPES.
- Sambrook, S., Stewart, J., & Roberts, C. (2008). Doctoral supervision ... a view from above, below and the middle! *Journal of Further and Higher Education*, 32, 71–84.
- Schön, D. A. (1991). *The reflective practitioner: How professionals think in action*. Aldershot: Ashgate.
- Shaw, K. (2009). *Student experience of undergraduate research projects: A perspective on Honours in Australia* (unpublished doctoral dissertation). University of Newcastle, Australia.
- West, R. (1998). *Learning for life final report: Review of higher education financing and policy*. Canberra: Department of Employment, Education, Training and Youth Affairs.