**Title**: **‘Am I doing it right?’: Conceptualising the practice of supervising master’s dissertation students**

**Authors’ names**: Ann Macfadyen, Christine English, Michael Kelleher, Maggie Coates, Colin Cameron, Vanessa Gibson

**Affiliations**:

Ann Macfadyen, Faculty of Engineering and Environment, University of Northumbria at Newcastle, Newcastle upon Tyne, NE1 8ST,UK [ann.macfadyen@northumbria.ac.uk](mailto:ann.macfadyen@northumbria.ac.uk)

Christine English, Department of Nursing, Midwifery and Health, Faculty of Health and Life Sciences, University of Northumbria at Newcastle, Newcastle upon Tyne, NE1 8ST, UK [christine.english@northumbria.ac.uk](mailto:christine.english@northumbria.ac.uk)

Michael Kelleher, Department of Nursing, Midwifery and Health, Faculty of Health and Life Sciences, University of Northumbria at Newcastle, Newcastle upon Tyne, NE1 8ST, UK [michael.kellerher@northumbria.ac.uk](mailto:michael.kellerher@northumbria.ac.uk)

Maggie Coates, Department of Nursing, Midwifery and Health, Faculty of Health and Life Sciences, University of Northumbria at Newcastle, Newcastle upon Tyne, NE1 8ST, UK [maggie.coates@northumbria.ac.uk](mailto:maggie.coates@northumbria.ac.uk)

Colin Cameron, Department of Social Work, Education and Community Well Being, Faculty of Health and Life Sciences, University of Northumbria at Newcastle, Newcastle upon Tyne, NE1 8ST, UK [colin.cameron@northumbria.ac.uk](mailto:colin.cameron@northumbria.ac.uk)

Vanessa Gibson, Open University, Milton Keynes, MK7 6BJ, UK [v.gibson@open.ac.uk](mailto:v.gibson@open.ac.uk)

**Correspondence details**: [ann.macfadyen@northumbria.ac.uk](mailto:ann.macfadyen@northumbria.ac.uk)

Dr Ann Macfadyen, Northumbria University, Room D109, Ellison Building, Newcastle upon Tyne NE1 8ST

**Key words:** Supervisor, Supervision, Master’s, Action Research, Postgraduate

**Abstract**

An action research project involving 25 master’s supervisors, from health and education disciplines, sought to enhance their understanding of dissertation supervision. Recognising that they were sometimes slightly unsure about their role, they sought to identify issues that contributed to this circumstance, and to develop supervisor preparation materials to support future colleagues. During interviews and collaborative workshops, colleagues shared their experiences and reflected with one another on the nature of supervision. Through this process they constructed a model that conceptualises how they practice. The core element is an ongoing assessment of a student’s readiness, motivation and individual situation. In response to this assessment, supervisors balance three functions: Facilitating, Nurturing and Maintaining Standards. Facilitating encourages student growth through challenge or stimulation. Nurturing involves the provision of support and reassurance within a safe space in which this growth can occur. Maintaining standards ensures that academic and professional rigor are preserved.

**Postgraduate supervision**

Postgraduate supervision of an extended dissertation project over a period of months is a key element of master’s level study, with outcomes focused on an understanding of, and an ability to use, research tools (QAA, 2008). A capstone research project which builds upon taught content is common in European programmes (De Kleijn, Meijer, Brekelmans and Pilot, 2014), but UK courses are typically shorter than others, and undertaken over one rather than two year(s). UK ‘extension’ post graduate taught (PGT) courses enable graduates to undertake further in-depth study into their degree subject, while ‘conversion’ masters offer an entry route into a new discipline (eg education, law or business). Conversion masters programmes are common in the UK, often undertaken on a full time basis immediately following undergraduate study, although mature students may choose this option to change career. Post graduate taught (PGT) programmes normally comprise two thirds (120 credits) taught component followed by a 60 credit capstone dissertation of around 15-20,000 words. Postgraduate research (PGR) programmes are primarily research focused, often viewed as a stepping stone to doctoral study, with a thesis of about 50,000 words (Vos, 2013; Wisker, 2008).

Trafford and Leshem (2008) identified that master’s dissertations have to demonstrate ‘essential features of serious research’ (p6) and Grant (2001) argued that some master’s projects make substantial and original contributions to their discipline. The supervisor will normally be required to assess the work as the primary marker (De Kleijn, Bronkhorst, Meijer, Pilot and Brekelmans, 2016; Anderson, Day and McLaughlin, 2008). Although there is some overlap between the processes involved in PhD and master’s study it is acknowledged that against the well-established pedagogy of doctoral supervision, there is comparatively little research specifically into the role at master’s level (Bamber, 2015; Tobbell and O’Donnell, 2013; Casey, Clark and Hayes, 2011).

**Master’s level supervision in the UK**

Recent years have seen significant changes for PGT provision in the UK. Changes to the funding system and visa regulations have caused significant fluctuations in PGT student numbers (HEFCE, 2017). Following a sharp decline in 2009, numbers remained low, but have begun to increase since the introduction of a national postgraduate student loan in 2016 (HESA, 2018). Changes to rules regarding post-study employment in the UK have resulted in reduced numbers of international applicants, who now comprise under 50% of PGT students (HEFCE, 2017). Over this period, there has been an increase in master’s programmes designed for vocational disciplines, as part of continuous development strategies for employees in health, education or business, with students undertaking projects involving applied rather than pure research (Smith et al, 2010). Commonly studying part time, these students may be partly funded by their employer, and would normally undertake the capstone dissertation over an academic year rather than the 12 weeks for full time students (Casey, Clark and Hayes, 2011; Pilcher, 2011). Many of these students are established professionals undertaking projects in their own workplace who may require encouragement to push the boundaries of established knowledge, and who often encounter ethical challenges, particularly when their research highlights the need for change in previously accepted practice.

The intensity of master’s study provides particular challenges for supervisors and students (Bamber, Choudhary, Hislop and Lane, 2017; Lee, 2012) as over a period of weeks (or months for part time students), they must learn to question the existing disciplinary evidence base and apply knowledge in different ways. Students on conversion masters may find exposure to a different disciplinary culture challenging. International PGT students can face social and academic isolation, financial pressures (Erichsen and Bolliger, 2011) or unfamiliar academic approaches (Hu, van der Rijst, van Veen and Verloop, 2016) and part time students may have less time for study due to work commitments. (Casey et al, 2011; Anderson et al, 2008). Family responsibilities and expectations can cause additional pressure for all of these student groups (Tobbell and O’Donnell, 2013; Casey et al, 2011). Wisker (2008) advocated supervisory support which takes these particular issues into consideration.

In response to variations in student numbers and populations, some have developed new models of supervision, including group and online supervision, to increase opportunities for collaborative and distance learning alongside efficiencies in delivery (Donnelly, 2013; Dysthe, Samara and Westrheim, 2006). Caution is recommended, however, by those who have developed these new models, who identified that they require careful consideration if the benefits are to outweigh possible disadvantages (McCallin and Nayar, 2012). For group supervision, disadvantages include less specificity of advice, reduced commitment to the student supervisor relationship, and role confusion (Dysthe et al, 2006). Online supervision can reduce non-verbal communication, human contact, and impact on the development of trust and rapport between student and supervisor (Donnelly, 2013; de Beer and Mason, 2009). A UK national postgraduate experience project indicated that student preference was for feedback given in an individual, face-to-face meeting with their supervisor (Morgan, 2015).

The guidance of an interested, supportive academic can be invaluable (Wagener, 2018; Ginn, 2014), and the alternative; an unengaged or elusive supervisor, may result in student isolation, frustration and lack of progress (Tobell and O’Donnell, 2013). Despite acknowledgement that the role is a key one within higher education, preparation for this responsibility is variable (Guerin, Kerr and Green, 2015; QAA, 2013).

**Supervisor development**

There has been increase in mandatory preparation for doctoral supervisors (Guerin et al, 2015; Lee, 2012), partly to promote consistency of practices (Jasman, 2012). Recognition of the need to develop this aspect of academic practice has not commonly been extended to include master’s level supervision, despite acknowledgement of this omission (Bamber, 2015)*.* Supervisor resources and policy documents may refer to both levels of study, as many supervisors work with both doctoral and master’s students (Wisker, 2012; Lee, 2012), however it has been suggested that lack of clarity regarding the level of academic achievement for master’s students can cause confusion for both students and supervisors (Bamber et al, 2017; Pilcher, 2011). In the UK, some of the disciplines which have a strong professional focus, and lower levels of doctorally qualified academics, such as healthcare, education and management, have seen significant increases in numbers of master’s students, (Drennan and Clarke, 2009), and it is common for master’s qualified academics to supervise students studying at that level.

Much of the published guidance for supervisors describes how the skills required for the dissertation project may be developed (Wisker, 2012), and some also include a description of activities or exercises which can be used to enhance students’ understanding at each of the stages involved (Wisker, 2012; Casey et al, 2011), but there is a lack of clear explanation as to how academics actually manage the supervision process (Lee, 2012). Higgs and Tichen (2001) suggest that supervisors develop their skills through experience while working with students, which constitutes ‘practical’ rather than the more formal ‘propositional’ knowledge that might be included in supervisor guidance. Pearson and Brew (2002) advocated that supervisors ‘surface their mental models of supervision’ (p143) to develop training for new supervisors, and Armitage (2006) identified that masters’ supervisors tended to work in subject or methodological silos, and advocated an exchange of ideas and good practice to aid supervisors in the development of their professional praxis.

**Design of the study**

A number of academics in a UK post-92 university recognised that, although completion rates for master’s programmes for their Departments (Health and Education) were high, even experienced supervisors, who had successfully supported many students over a number of years, lacked a conscious awareness of their supervisory approaches (Macfadyen, Prescott-Clements, Hill and Tawse , 2012). They found it difficult to articulate the ways in which they had developed the strategies they used. Their appreciation of their role constituted ‘tacit knowledge’ Polanyi (1962), which existed at a sub-conscious level.

The authors recognised that the lack of an established evidence base about the role of master’s dissertation supervisor was problematic, and acknowledged the need to better prepare the new supervisors required to meet increasing demand. The willingness of supervisors to work together to explore this aspect of their practice, prompted the development of an action research project. Kemmis (2010) suggested that action research is about ‘transforming people’s practices, their understanding of their practices and the conditions under which they practice’ (2010, p. 417). The research question identified was ‘How can we better understand the complexities and challenges involved in the practice of supervising master’s dissertation students?’ and the study involved a number of phases, each of which informed the next.

***Phase 1***

Discussions with 20 supervisors, including the authors, in five focus groups and five individual interviews, established a lack of conscious appreciation of the supervision strategies used, and recognised the benefits of further exploration of supervisory practices.

***Phase 2***

Thirteen supervisors were interviewed individually (AM) to co-construct explanations of their supervisory practice. A range of collaborative activities which could help develop their understanding of supervision were identified.

***Phase 3***

Twelve supervisors met together in a series of eight, monthly workshops to explore the concept and practice of supervision. Theoretical models and factors affecting supervision were discussed, after which resources entitled ‘Guidelines, Hints and Tips’ for new supervisors were developed. Concluding discussions in three focus groups facilitated reflection for those involved on the impact of the project on their own practice.

***Phase 4***

The resources were evaluated by eight new supervisors during two workshops.

***Ethical considerations***

Undertaking research in your own organisation raises particular ethical issues such as informed consent and anonymity, which were considered in the study design. Coghlan and Brannick (2014) emphasize that research should acknowledge the potential for colleagues to feel coerced into involvement. To minimise the chance of this, colleagues were e-mailed with project details and an invitation to be involved. Several methods of participation were offered. For phase one, academics could participate in a focus group discussion, an individual interview, or share their comments online. No-one opted for the last option. Prior to each of the later phases, the time commitment for each activity was outlined verbally and in writing. Some colleagues withdrew from the study between each phase, mainly due to work commitments.

During initial discussions, the concept of anonymity was explored and it was agreed that supervisors’ participation in the study would not be shared with the others involved until each had agreed to this. This meant that separate e-mails were sent to individuals until they had attended a focus group or workshop, after which they were included in group e-mails. The possibility of project outcomes being disseminated through presentations or publications was explained. In the reporting of the research, individuals were identified by fictional names, allocated during data analysis. Zeni (2009) highlighted that in a collaborative project such as this, anonymity may prevent participants receiving credit for intellectual property. It was agreed that all of the supervisors who participated in the workshops would be invited to be involved in any dissemination following the project, and several have contributed to conference presentations. This paper’s authors were involved in one or more of the research phases, including the project design (AM, CC), the data analysis (AM, CE, VG, CC), the data collection and dissemination of findings (all authors).

***Research challenges***

The main challenge experienced was the availability of supervisors. Although willing to participate, busyness could have resulted in their initial enthusiasm waning when academic responsibilities prevented further involvement. The development of a ‘communicative space’, where individuals appreciated that they could contribute as and when they were able, was effective in maintaining commitment to the study. Kemmis (2006) described this as ‘A network of persons who come together to explore problems and issues’ (p103),which is different to a project group, with a more fluid membership, where members are involved as and when they wish.

A fluid approach to participation was discussed, so that people understood that while their presence would be appreciated by other group members, individuals’ attendance at all the workshops would be unlikely, due to their workload and other responsibilities. It was agreed that summaries of discussions would be collated and sent to those who had been present, to agree that they were an accurate reflection of the dialogue which had occurred. These were then e-mailed to the others, for consideration and comment. This process of clarifying expectations is important to maintain the authentic relationships underpinning the democratic aspirations of this type of research (Ospina et al, 2004).

This flexible nature of involvement helped to ensure supervisors’ ongoing contact with one another, which maintained the momentum of the research. Some attended more workshops, and some became involved in analysis and dissemination of the findings, but all were kept informed about the study, and invited to contribute comments as they wished. In this way, individuals could (and did) contribute even when they were away from campus.

**Data analysis**

Data analysis focused on the participants’ comments, which give insight into their social world and understanding of their experiences (Silverman, 2000). The range of materials collected included audio recordings and transcripts of all eight focus groups and 18 individual interviews and some of the ten workshop conversations, summaries of workshop small group discussions (collated from flip chart paper and post it notes), e-mail conversations and reflections. The management and analysis of the data, based on Miles and Huberman’s four stage model (Miles and Huberman, 1994), involved a number of steps, including familiarisation, constructing a thematic framework, coding the data and abstraction and interpretation of the findings.

One supervisor (AM) read the transcripts while listening to the recordings of the conversations and then re-read the transcripts several times, noting what appeared to be recurring ideas. Issues identified as capturing something important in relation to understanding the supervisor’s role were grouped together into the themes that formed the initial analytical framework. The transcripts were coded using these themes, and three others, (including AM, CE, VG) checked that these reflected the issues raised during the interviews and conversations. In discussions following this process, some additional themes were agreed. A process of member checking then involved participants in confirming that the meaning assigned to their comments was accurate. This validation of findings is identified as one of the most important techniques for establishing credibility of research (Lincoln and Guba, 1985).

The overall aim of the study, to produce a rich description of how the participants viewed and undertook supervision, was a guiding principle within the analysis of the materials. Following phase four and initial dissemination of the project outcomes, further discussions and interpretation of the data took place. During this time, the processes involved in managing supervision were further clarified and a new model of supervision, which conceptualises how supervisors individualise student support and balance the different functions of the role, was constructed.

**Findings**

Although it was clear from discussions that academics were using a range of supervisory skills and strategies to promote student development, many experienced supervisors, who had successfully supported numerous students, expressed doubts in their expertise. Most found it difficult to articulate describe their approach to supervision. It seemed that supervisors sometimes felt a sense of being slightly unsure about their role. Almost all of those interviewed expressed uncertainty about their supervisory practice – and the question ‘Am I doing it right?*’* emerged as a common concern:

Bethany: I have learned a little bit by trial and error I suppose along the way... So I always feel a little bit uncertain …You learn by finding your way through it, and probably, unfortunately, by making some mistakes along the way.

They also recognised that the existing situation in their departments, where all those new to the role had to start from scratch and learn about supervision through experience, was wasteful and unnecessary:

Daisy: You learn from experience, but you know you don’t want everybody to learn from experience if it’s already there*.*

Through sharing their experiences, reflecting with one another on the nature of supervision, and developing materials for new supervisors, they recognised that supervisory expertise was not a definable body of knowledge but a process that involves ongoing situational judgement.

***Key functions of supervision***

In considering how they supported students to attain master’s level outcomes, the supervisors identified that they adopted an individualised approach based on their assessment of each student’s readiness, motivation and situation.

Due to changes within both educational and healthcare education in the UK, there are a range of routes through which students can arrive at master’s level study. This includes traditional undergraduate study which involves practice placements of up to 50% of their programme, or models of delivery which are primarily work based learning with university attendance on a part time basis. In health, many students have come through a diploma level route with part time top up academic modules (often related to their particular work speciality) leading to a degree. As a result of to this complexity, supervisors highlighted that there was variation in students’ academic skills. It was important for supervisors to identify any possible gaps early on, so that they themselves could offer support or arrange this through the university library and study services. They ascertained students’ academic readiness through explorative discussions:

Nicola: It’s more of a finding out and establishing what the students understand … by asking them questions really. You base your…your supervision, around the answers that they provide and what they bring to the tutorial, whether they feel as though they have established the process, what materials they bring, you know, what questions they ask.

Student’s motivation for study was also recognised as an important issue. The findings of a UK national survey indicate that students’ reasons for deciding to undertake postgraduate study vary across different student groups, and include increased employment prospects, personal interest in the subject and the possible impact on career development (Leman, 2015). Supervisors had also experience of students who felt that they had been required (and sometimes funded) by their employers to achieve a master’s qualification.Awareness of a student’s aspirations and reasons for undertaking the study enabled supervisors to tailor the support given, as some had aspirational goals, whereas others were less ambitious:

Tom: Whether the students want to be here, you know some of them have said, you know, ‘As long as I pass that’s fine’. But there are other people…who have paid for it, and for them it’s…you know, they want to do the best, and others are doing the masters because they want a stepping stone to the...doctorate work

An appreciation of the external factors which may impact on a student’s commitment to, and capacity for, study has been identified as being valuable, but Tobbell, O’Donnell, and Zammit (2010) suggested that academic staff had little understanding of their postgraduate students’ life experiences. In this study it was clear that the supervisors actively sought out information on student motivation and demonstrated high levels of understanding and empathy for their student’s personal and professional situation:

Lucy: It’s getting the balance as well… you are empathetic to the people because you recognise that they are in busy jobs, they are in senior positions.

Supervisors acknowledged several factors which could impact upon a student’s commitment to their study and the resources available to them. These included family or employment responsibilities that could affect the time and space in which they could concentrate on their project.

An awareness of the need to be flexible in working around students’ development was apparent. Supervisors recognised that students developed at different rates and that sometimes their progress was unpredictable:

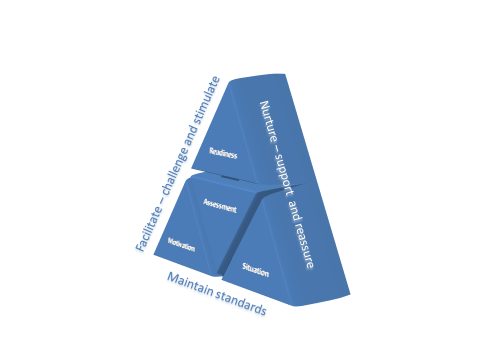
Rosie: You just suddenly think ‘Actually, something that they have said makes you think they are ready to go the next step’

It was evident that supervisors revised their assessment of each of these elements over time. A student’s knowledge and perspective on their topic might change, their belief in their abilities could increase, or their circumstances alter; all of which had to be factored into the supervisor’s approach.

**Conceptual model of supervision**

Through the discussions about the ways in which supervisors created individual support strategies for each student, based upon their assessment of the student’s readiness, motivation and situation, they conceptualised that they balanced three different supervisory functions: Facilitating’, ‘Nurturing’ and ‘Maintaining standards’.

**Figure 1: Core structure of three-sided model of supervision**



*Facilitating*

Supervisors created an environment in which a student recognised the need for growth through challenge or stimulation, through questioning the learner’s existing knowledge and beliefs or presenting them with alternative perspectives. These discussions prompted students to explore different ideas:

Rosie: I think some of it is about the way that you question students, the way that you, rather than give them the answers, you facilitate them to kind of move along the process.

Neil: Challenging them a little bit about the relevance and the usefulness of their research idea.

The need for supervisors to identify students’ underlying beliefs and assumptions and facilitate student growth is key to guiding students through master’s level study. Master’s level outcomes in the UK are *“*Originality in the application of knowledge, together with practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge in the discipline*”* (QAA, 2008).

*Nurturing*

This experience of learning and development can be daunting for students, and supervisors recognised their role in creating a safe space in which growth can occur, through the provision of support and reassurance. This involved supervisors appreciating a student’s existing skills and achievements, recognising their development, and reassuring them about the longer-term benefits and likely success of their studies, at times when they face the challenge of investing the time and energy required, in the midst of their often-busy lives:

Nicola: A lot of reassurance, you know, I think, as to the fact that they are going to achieve and they’re going to get to the end.

Rosie: You encourage them with what they do know, what they can do, you know, and then help them build up the bits that they are not so confident in.

It is also evident from the literature that master’s students appreciate a supportive learning environment. Anderson et al (2008) highlight that they value the confidence that the supervisor engenders. They particularly appreciate a friendly informal approach, and the demonstration of a genuine interest, commitment and an ‘empathetic appreciation’ of the experience of undertaking academic study in the midst of wider constraints**.**

*Maintaining standards*

While they were engaging in the other two functions, supervisors did so within set parameters or requirements:

Gillian: I think you’ve got to be empathic and sympathetic, but I think firm. The deadlines, if you think the student is losing the plot, the timelines.

This function included promoting student ownership of their project, attainment of the appropriate academic standards, adherence to ethical approval processes, and institutional requirements such as timely progress reports and submission deadlines.

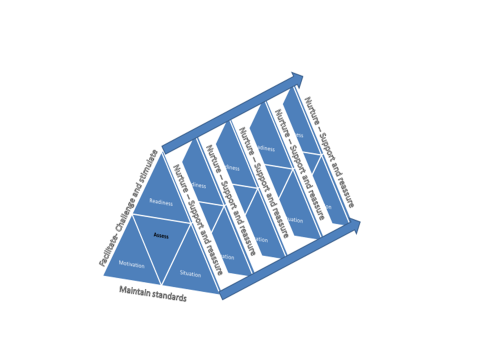
**Dynamic nature of the model**

The supervisors articulated that the assessment and management of the supervision process as outlined above was not one that took place only during formal supervision meetings, but it was ongoing throughout the period of the dissertation:

Nicola: I mean if I am doing searches for my own work and I come across something that would be valuable for that particular student that I am supervising, I will either signpost them to or provide the link; just give them a quick email or something like that.

Supervisors assessed, facilitated, nurtured and maintained standards through any contact that took place with the student, or if they realised the student had not made contact for a while. It was evident that the management of supervision occurred on a continuing basis throughout the dissertation process as is illustrated in Figure 2.

**Figure 2: The three sided model of supervision**



In summary, this model of supervision highlights the importance of an ongoing consideration of the individual learner’s readiness, motivation and situation. Building on this holistic assessment, supervisors use three functions to manage the supervision process: facilitating; nurturing; maintaining standards. Supervisors place more emphasis on each of these functions at different times throughout the supervision process.

**Impact of involvement on the supervisors**

By accessing their previously hidden or ‘tacit’ knowledge of this aspect of academic practice, supervisors conceptualised a new three-sided model of supervision that explained their practice, using a holistic approach to promote students’ development. The impact of their involvement on the supervisors themselves included an increased awareness and confidence in their supervision, and some ideas that could enhance their practice:

Thea: I don’t think I’m doing anything different this time, this year, to what I was this time last year, but I feel differently about it… I think I feel a bit more confident … and I have more awareness of the process… some of the bits of the jigsaw fit together better.

Neil: It’s allowed me to sort of re-frame some of the things I had previously done in my own thought processes, but it’s also given me a bit more confidence in trying something that I had sort of heard about or thought about, and seeing the success that other supervisors who have been involved in the project have had with that.

As a result of the collaborative exploration of supervision, those involved accepted that they had some legitimate expertise in this aspect of the academic role. This was liberating for some, and the creation of resources for other supervisors was indicative of their commitment to ensuring that this new knowledge would be of benefit to their colleagues.

Experience in the use of the guidance material with new supervisors has highlighted that it is beneficial to provide this as an over-arching resource, while focusing on one supervisory function at a time. Feedback has indicated that colleagues appreciate opportunities to explore their new role collaboratively, reflecting upon their own experiences of being supervised and learning from other’s experiences.

**Discussion**

While recent research into master’s study has resulted in greater clarity regarding expectations and goals for this academic level (Bamber et al, 2017; De Kleijn et al, 2016), there is general acknowledgement that the role of supervisor in supporting students through their dissertation project is complex, and a lack of conceptual models which articulate this process has been recognised for some time (Pearson and Brew, 2002; Wisker, 2012). Previous literature has tended to focus on the scope and complexities involved in the supervisor’s role. The influences and expectations which academics have to manage and the need for flexibility in responding to individual student’s situations have been acknowledged, but there is less appreciation of how supervisors actually balance these tensions. A national report on ‘mastersness’ (QAA, 2013) challenged supervisors to acknowledge their practice and express it in language which explains their role to others. The collaborative approach used in this study enabled supervisors to better understand and articulate their role in helping to develop students’ critical understanding and cultivate their research skills and confidence. In particular, the ways in which they assessed and responded to students’ situations and learning needs offers a new insight into the process by which the supervision process is managed.

The individualised approach to supervision described in this study, with supervisory activity tailored to each student, is perhaps not surprising, given the health and education backgrounds of those involved, however the need to appreciate students’ differences and adopt a flexible approach is widely acknowledged within the literature from disciplines as varied as business, computer science, maths, social sciences and humanities (Vos, 2013; Pilcher, 2011; Sharakis-Doyle and McIntyre, 2008; Grant, 1999).

Noddings (2012) argued that educators are interested in both the expressed and the academic needs of their students, drawing on their store of knowledge to respond intelligently to both. In recognition that students’ needs might change throughout the dissertation project, De Kleijn et al (2014) coined the term of ‘adaptivity’ to highlight the way in which the supervisor responds appropriately to a student’s needs at any particular time, and advocated further study into the process by which supervisors designed individual student support strategies. This notion of responsive supervisory expertise is comparable to Aristotle’s concept of ‘practical wisdom’ or ‘phronesis’ (Ackrill and Ross, 1973), which is the ability to see the right thing to do in particular circumstances (Carr, 2006). Carr suggested that educators develop the ability to make wise judgements in each individual situation, which Cherry (2012) argued requires reflexivity on the part of the supervisor. Sharakis-Doyle and McIntyre (2008) suggested that effective supervision requires not only an awareness of the potential complexities involved in the relationship and an understanding of the contextual influences, but also a high level of self-knowledge.

The three sided model of supervision described above is a useful tool to help established supervisors reflect on their practice, either in considering the alternative facets of their support of an individual student at different stages of the dissertation process, or in enhancing their practice in general as they appreciate the contributory elements of effective supervision. For new academics, it promotes an understanding of how their assessment of an individual’s readiness, motivation, and individual situation provides a framework for initial and ongoing supervisory discussions, and enables them to have an overview of the range of factors which can impact on a student’s progress. Guerin et al (2015) argued that the development of a conceptual understanding of supervision is important for supervisors, and advocated that academics would benefit from reflecting on their personal experiences in the light of new approaches to supervision, such as those which have been developed in response to increasing student numbers, changes to student demographics and geographical distance between student and supervisor.

Internationally there has been a shift to professionalise and increase transparency of the supervisory role, with greater emphasis on centralised processes and quality assurance (Jasman, 2012; Hammond, Ryland, Tennant and Boud, 2010). Experience has highlighted that greater focus on student experience and satisfaction can increase the accountability of the dissertation supervisor, regarding the amount and nature of supervision (Grant, 2005). In the current environment, with particular scrutiny of Higher Education teaching quality and impact, the need for evidence of the effectiveness of academic support has become increasingly apparent. Bamber highlighted the contribution that local studies such as this one could make to the pedagogy of supervision, in the generation of knowledge through ‘evidence-informed improvement cycles’ (Bamber, 2015 p221), which could enlighten practice.

**Future research**

In considering post graduate supervision Sharakis-Doyle and McIntyre (2008 p3) identified three different models: lab based, individual and hybrid. In a lab based approach, supervision is embedded in the research itself, and a group model is common; with individual supervision the student’s research is often quite independent from the supervisor’s, and the hybrid model may start with the supervisor determining the research focus, but where the student takes increasing ownership of the project.

This study has focused on the practice of academics from two specific disciplines, within one university, for whom an independent supervisory approach was taken, where the students chose and undertook the research projects with the support and guidance of their supervisors. There are indications from the literature and from discussions with supervisors from other universities and disciplines that the findings resonate with those who adopt both independent and hybrid approaches. Future research could explore if and how the findings reflect research supervision within other subject areas and across all supervisory approaches. Consideration of the relevance and contribution of the model to increased supervisory understanding and confidence for health and education academics, both in the UK and internationally, would also be of value.

**Conclusion**

This study offers a clearer understanding of how academic staff supervise master’s students. Central to their supervision is assessment of the student’s readiness, motivation and situation. Building upon this, supervisors balance facilitating the student’s academic progress alongside nurturing their development, whilst ensuring achievement of the required standards. The model of supervision outlined, which explains how supervisors manage the actual supervision process, will be of benefit in the preparation of new supervisors as they seek to ascertain what it is they are supposed to be doing as they work with individual students. It will also be of interest to established supervisors who are seeking to enhance this aspect of their practice, both as a visual illustration which can be used to explain their role to students, and as a structure on which they can base reflections on their practice. In their exploration of practice knowledge, Higgs and Tichen (2001) argued that the rationale behind academic judgements and actions, which are acknowledged as appropriate, should be articulated. Such explanation can contribute to the legitimisation of practice and the external accountability required in a society which is increasingly evidence based. The development of the above model of supervision provides a conceptual framework which offers a coherent approach for supervisors as they guide students through the dissertation journey.

**References**

Ackrill, J.L. and Ross, W.D. (1973) Aristotle’s Ethics London: Faber

Anderson, C., Day, K. and McLaughlin, P. (2008) Student perspectives on the dissertation process in a masters degree concerned with professional practice. Studies in Continuing Education 30(1) 33-49.

Armitage, A. (2006) Consultant or Academic? Frameworks of Supervisory Practice to Support Student Learning and Postgraduate Research The Higher Education Academy Annual Conference July 2006 <http://www.studynet1.herts.ac.uk/ltic.nsf/Teaching+Documents/20690D610B01F26880257E9D005B36E0/$FILE/2009%20HEA%20resource%20dissertation_supervision.pdf> [accessed 9/8/2017]

Bamber,V., Choudhary, C.J., Hislop, J. and Lane, J. (2017): Postgraduate taught students and preparedness for Master’s level study: Polishing the facets of the Master’s diamond, Journal of Further and Higher Education <https://doi.org/10.1080/0309877X.2017.1359502>

Bamber, V. (2015) Mixing Decks: Frameworks for Master’s Scholarship Higher Education Quarterly 69(3) 221-236

Carr, W. (2006) Philosophy, methodology and action research Journal of Philosophy in Education 40 (4) 421-435

Casey, D., Clark, L. and Hayes, S. (2011) Study Skills for Masters’ Level Students Exeter: Reflect Press

Cherry, N. (2012 ) The paradox and fog of supervision Quality Assurance in Education 20 (1) 6-19.

Coghlin, D. and Brannick, T. (2014) Doing action research in your own organization (4th edition) London: Sage Publications Ltd

de Beer, M. and Mason, R.B. (2009) Using a blended approach to facilitate postgraduate supervision Innovations in Education and Teaching International 46(2) 213-226

de Kleijn, R.A.M., Bronkhorst, L.H., Meijer, P.C., Pilot, A. and Brekelmans, M. (2016) Understanding the up, back, and forward-component in master's thesis supervision with adaptivity Studies in Higher Education 41(8) 1463-1479

de Kleijn, R.A.M., Meijer, P.C, Brekelmans, M. and Pilot, A. (2014) Adaptive research supervision: exploring expert thesis supervisors' practical knowledge Higher Education Research & Development 15(1) 117-130

Donnelly, R. (2013) Enabling connections in postgraduate supervision for an applied eLearning professional development programme International Journal for Academic Development 18(4) 356-370

Drennan, J. and Clarke, M. (2009) Coursework masters programmes: the student’s experience of research and research supervision Studies in Higher Education 34(5): 483-500.

Dysthe, O., Samara, A. and Westrheim, K. (2006) Multivoiced supervision of Masters students: a case study of alternative supervision practices in higher education Studies in Higher Education 31(3): 299-318

Erichsen, E. and Bolliger, D. (2011) Towards understanding international graduate student isolation in traditional and online environments Educational Technology Research and Development 59(3): 309-326

Ginn, F. (2014) Being like a researcher: supervising Masters dissertations in a neoliberalizing university Journal of Geography in Higher Education, 38(1) 106-118

Grant, B. M. (2005) Fighting for space in supervision: fantasies, fairytales, fictions and fallacies International Journal of Qualitative Studies in Education 18(3): 337

Grant, B. (2001) Dirty work: A code for supervision read against the grain. In A. Bartlett & G. Mercer (Eds.) Postgraduate research supervision: Transforming (r)elations(pp. 13–24). New York: Peter Lang

Grant, B. (1999) Walking on a rackety bridge: Mapping supervision. Paper presented at HERDSA Annual International Conference, July 12\_15, Melbourne, Australia available at <https://www.researchgate.net/publication/228505875_Walking_on_a_rackety_bridge_mapping_supervision> [accessed 10/8/2017]

Guerin, C., Kerr, H. and Green, I. (2015) Supervision pedagogies: narratives from the field Teaching in Higher Education 20(1) 107-118

Hammond, J., Ryland, K., Tennant, M. and Boud, D. (2010) Building Research Supervision and Training across Australian Universities <http://www.academia.edu/2314934/Building_Research_Supervision_and_Training_across_Australian_Universities> [accessed 18/10/2018]

HEFCE (2017) Overview of postgraduate education <http://www.hefce.ac.uk/analysis/postgraduate/lterm/> [accessed 9/8/2018]

HESA (2018) Higher education student statistics UK 2016-7 <https://www.hesa.ac.uk/news/11-01-2018/sfr247-higher-education-student-statistics/numbers> [accessed 9/8/2017]

## Higgs, J. and Tichen, A. (2001) Doing, Knowing, Being and Becoming: The Nature of Professional Practice IN Higgs, J. Professional Practice in Health, Education and the Creative Arts Oxford: Wiley-Blackwell

Hu, Y., van der Rijst, R.M., van Veen, K. and Verloop, N. (2016) The purposes and processes of master's thesis supervision: a comparison of Chinese and Dutch supervisors Higher Education Research & Development 35(5) 910-924

Jasman, A. (2012) From behind closed doors: making the tacit explicit in research supervision practice International Journal of Organisational Behaviour 17(1), 28-41

Kemmis, S. (2010): What is to be done? The place of action research Educational Action Research 18(4) 417-427

Kemmis, S. (2006). Exploring the relevance of critical theory for action research: Emancipatory action research in the footsteps of Jürgen Habermas. In P. Reason & H. Bradbury (Eds.), Handbook of action research: Participative inquiry and practice(pp. 94-105). London: Sage

Lee, A. (2012) Successful Research Supervision: Advising students doing research London: Routledge

Leman. J. (2015) What do taught postgraduates want? The Postgraduate Taught Experience Survey 2015 <https://www.heacademy.ac.uk/resource/postgraduate-taught-experience-survey-2015> [accessed 2/11/2018]

Lincoln, Y.S. and Guba, G.E. (1985) Naturalistic Enquiry, Beverly Hills CA: Sage

Macfadyen, A., Prescott-Clements, L., Hill, M and Tawse, S. (2012) A CIPP Evaluation of research supervision in HCES taught post graduate programmes Unpublished Report, Newcastle upon Tyne: Northumbria University

McCallin, A. and Nayar, S. (2012) Postgraduate research supervision: a critical review of current practice Teaching in Higher Education 17(1) 1-12

Miles, M.B. and Huberman, A.M. (1994) Qualitative Data Analysis: An expanded sourcebook London: Sage

Morgan, M. (2015) Study expectations of different domiciled Postgraduate-Taught students in a UK post-1992-institution Quality Assurance in Education 23 (3) 233 - 249

Noddings, N. (2012) The caring relation in teaching Oxford Review of Education 38(6) 771-781

Ospina, S., Dodge, J., Godsoe, B., Minieri, J., Reza, S., and Schall, E. (2004) From consent to mutual inquiry: Balancing democracy and authority in action research. Action Research, 2(1) 45-66

Pearson, M. and Brew, A. (2002) Research Training and Supervision Development Studies in Higher Education 27(2): 135-150

Pilcher, N. (2011) The UK postgraduate Masters dissertation: an ‘elusive chameleon’? Teaching in Higher Education 16(1) 29-40

Polanyi, M. (1962) Personal knowledge: Towards a post-critical philosophy. Chicago: University of Chicago Press

QAA (2013) What is Mastersness? <http://www.qaa.ac.uk/docs/qaas/enhancement-and-development/what-is-mastersness.pdf?sfvrsn=3a47f581_12> [accessed 10/08/2018]

QAA (2008) The framework for higher education qualifications in England, Wales and Northern Ireland, 2008 available at <http://www.qaa.ac.uk/docs/qaa/quality-code/qualifications-frameworks.pdf?sfvrsn=170af781_14> [accessed 10/8/2018]

Sharakis-Doyle, E. and McIntyre, G. (2008) The Western Guide to Graduate Supervision The University of Western Ontario Teaching Support Centre

Silverman, D. (2000) Doing Qualitative Research: A practical handbook London: Sage

Smith, A., Bradshaw, T., Burnett, K. Docherty, D., Purcell, W. and Worthington, S. (2010) One Step Beyond: Making the most of postgraduate education London: Department for Business, Innovation and Skills

Tobbell, J. and O’Donnell, V.L. (2013) Transition to postgraduate study:

Postgraduate ecological systems and identity Cambridge Journal of Education 43(1) 123-138

Tobbell, J., O’Donnell, V. and Zammit, M. (2010) Exploring Transition to Postgraduate Study: Shifting Identities in Interaction with Communities, Practice and Participation. Educational Research Journal 36(2) 261–278

Trafford, V. and Leshem, S. (2008) Stepping stones to achieving your doctorate Maidenhead: Open University Press

Vos, L. (2013) Dissertation study at the postgraduate level: A review of the literature York: Higher Education Academy

Wagener, B. (2018) The importance of affects, self-regulation and

relationships in the writing of a master's thesis Teaching in Higher Education 23(2) 227-242

Wisker, G. (2012) The Good Supervisor (2nd ed) Basingstoke: Palgrave McMillan

Wisker, G. (2008) The Postgraduate Research Handbook (2nd ed) Basingstoke: Palgrave McMillan

Zeni, J. (2009) Ethics and the ‘personal’ in action research In Noffke, S. and Somekh, B. (2009) The Sage Handbook of Educational Action Research London: Sage Publications Ltd