

Novice supervisors' practices and dilemmatic space in supervising student research projects

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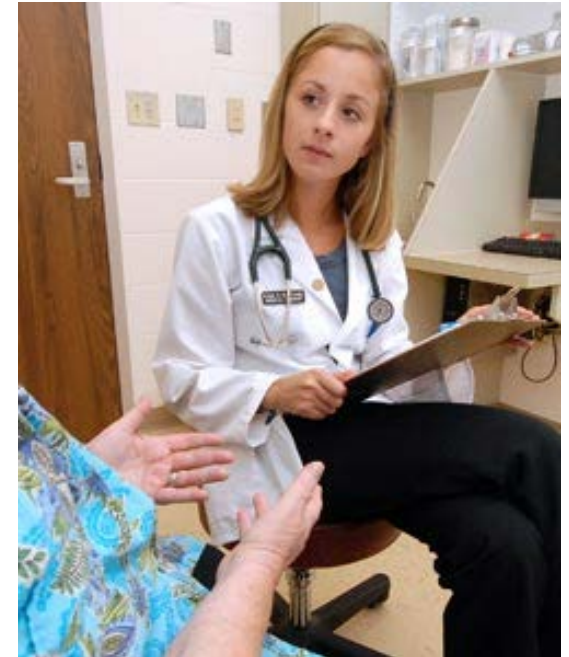
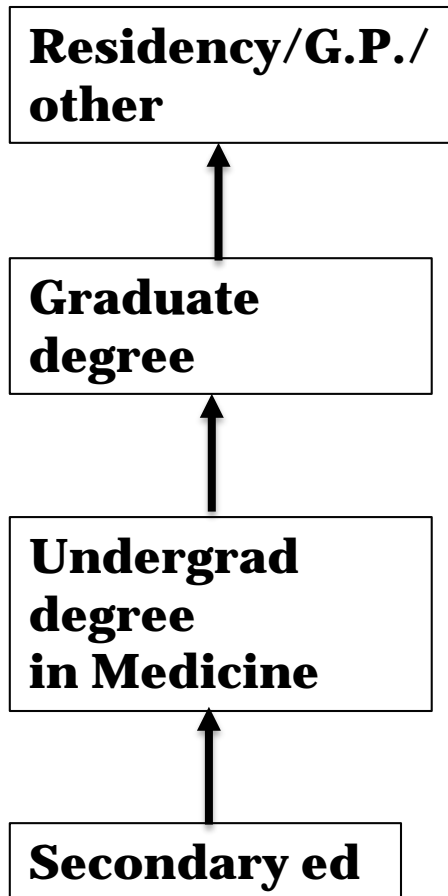


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Background



Setting



Aims of research integration

- Developing a positive attitude towards using research in professional practice
- Gain research skills, generate research outcomes



GMC, 2015; CanMeds, 2015; NFU, 2009

Research practices in Med Ed

**Grad degree
in Medicine**



**Undergrad
degree
in Medicine**



**Student research integrated in
subjects**

- Research activities = learning activities
- Students use research to benefit patient care
- Parts of the research process

Why research supervision?

- Student research projects are common practice (Ba & Ma)
- Research is fully & explicitly integrated into teaching
- Projects focus on promoting student research competencies
- Students are supervised by PhD-students/early career academics and a senior researcher

Research supervision: a gap

- Experienced supervisors: responsiveness to students' needs & student-SV relationships → student learning (De Kleijn et al., 2014; Mainhard et al., 2009)
- Novice supervisors' can benefit from support in exploring approaches & challenges (e.g., Turner, 2015)
- Foster deliberate use of personal supervision experiences (Amundsen & McApline, 2009; Schön, 1983)

Research supervision pedagogy

- Supervision = teaching (Brew, 2001; Boud & Lee, 2005)
- Student research activities + supervisor activities as an academic are central in research supervision (Kandiko & Kinchin, 2012; Manathunga & Goozee, 2007)



Pedagogical choices in practice



Choices = complex, depend on individual characteristics (needs, goals, drives) and structural aspects of the environment (e.g., student understanding)

Dilemmatic space



Dilemmas are inherent to teaching

Specific supervision situations will bring certain considerations to the fore (Fransson & Grannäs, 2013; Leong, 2014)

Teacher noticing



Novice teachers → instructional decisions

Learn to use evidence of student learning in student-teacher interaction (Van Es & Sherin, 2008; Talanquer et al., 2007)

Here: a sensitizing concept (Bowen, 2006)

Aims of study

To understand how novice supervisors supervise students in practice, exploring the concept of dilemmatic space within the data.

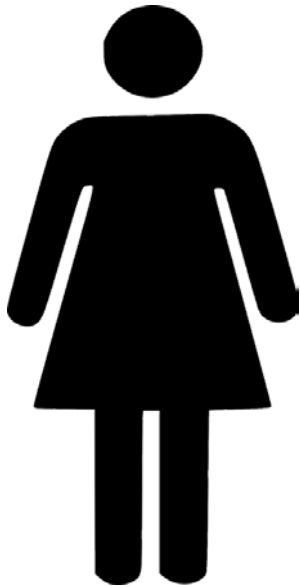
To describe research supervision practices and explore relations with the dilemmatic space.

Method - context

- 12 Student research projects at the end of bachelor/master
- Projects within (bio)medical or biopharmaceutical program
- Duration project: 12-16 weeks, internship
- Data collection: halfway during the student research project

Method - participants

- 11 supervisors (early career academics/PhD-students)
- 1-6 yrs supervising experience



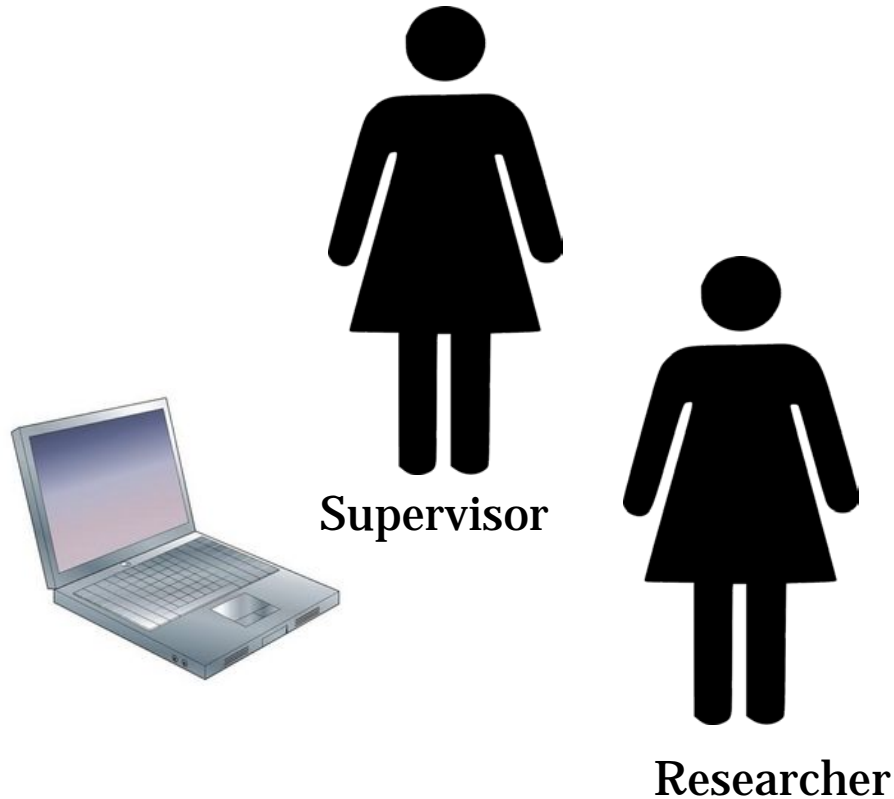
Supervisor



Student



Method - datacollection



- Interview immediately after supervision meeting

‘At what times during the supervision meeting you felt you needed to guide the student and what were your thoughts?’

- Supervisor selected fragments
- Researcher let the supervisor explicate (cf. stimulated recall interviews)

Method - analysis

Sensitizing concept:

Teacher noticing

(Bowen, 2006; Van Es & Sherin, 2008)

5 practices

Constant comparison analysis;
kappa = .64

Dilemmatic space

(Fransson & Grännas, 2013)

4 codes

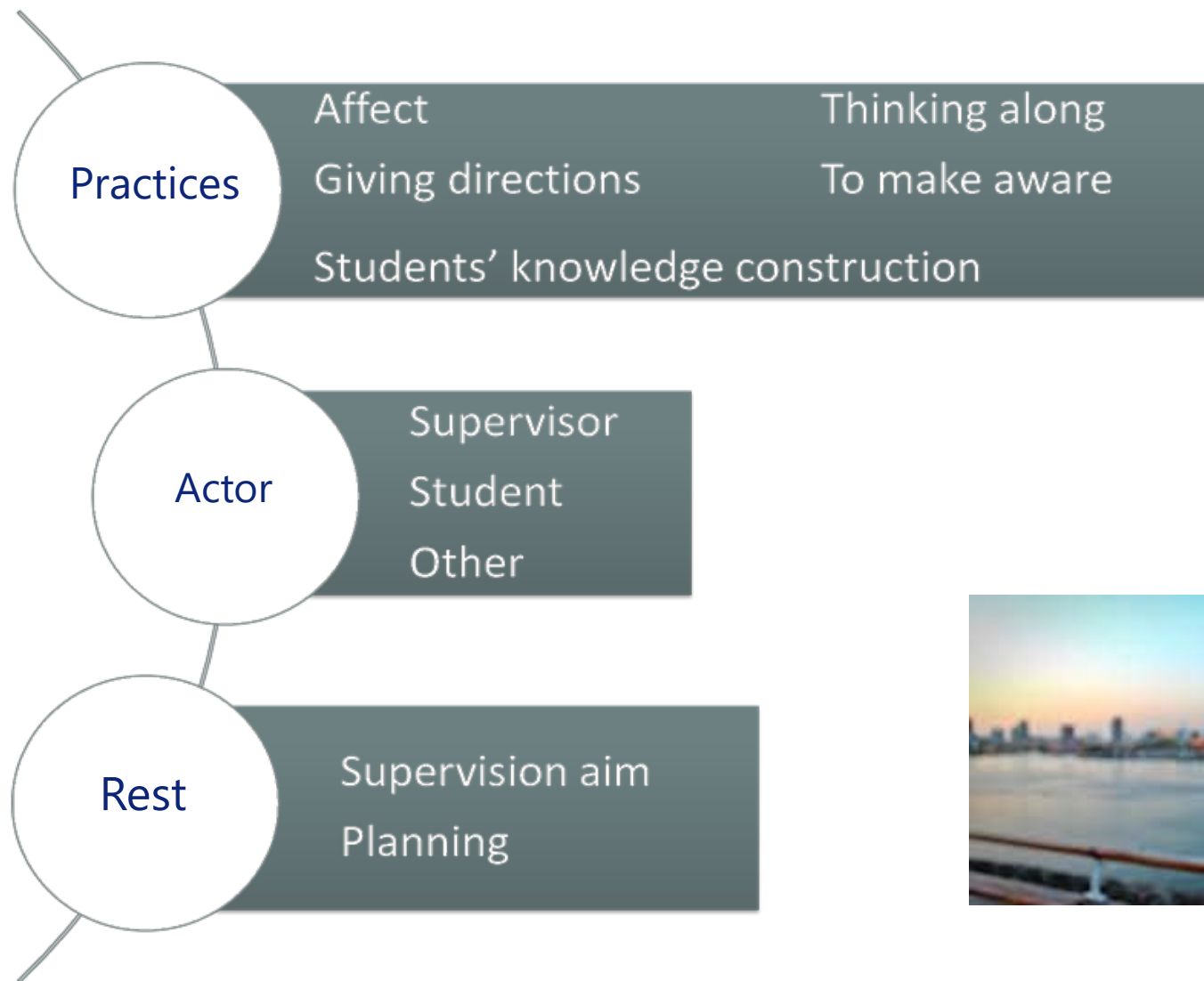
Multiple researchers'
interpretation

Between case matrix

(Miles & Huberman, 1994)

Exploring
relationships

Codes noticing



Codes dilemmatic space

Regulation

To what extent can the student regulate the research process?

Student needs

What are the student needs?

Student-supervisor relationship

What should I do to maintain a good supervisor-student relationship?

Professional identity

How others perceive my role as a supervisor?



Exploring relationships

Regulation question and giving directions

‘What I’ve noticed is that I’m going to lecture him at a certain point. I often do that. ***I leave him more or less space to come up with his own things.*** I’ve noticed that during the supervision meeting, I’ve interrupted him once or twice. [Pointing at the video] Look, things like this. I already know he’s got ideas about this, we’ve discussed this before. Despite that ***I tell him what the aim was and what we’re going to do.*** Then I quietly wonder how that comes across to him, because I am determining the direction.’ (Robert).

Exploring relationships

Student-supervisor relationship and fostering motivation

'She indicates that she isn't quite clam yet. *I try to calm her down.* She knows herself, she told me: "Every now and then I can't put my mind to rest. It [the research project] isn't easily out of my head". She keeps telling me that. And still this feeling isn't gone, she's trying to ignore it. *Now, we're talking about it again.*' (Linda).

Fostering motivation relates to student needs and regulation NOT to professional identity

Exploring relationships

Supervision aims relate to professional identity

*'I find it difficult to provide feedback on this kind of rules of engagement [the student being late, the student sending an e-mail to the senior researcher without mentioning the supervisor]. I find it difficult, because **it's only about how I like it**' (Mary).*

Conclusions and discussion

- Teacher noticing can be a useful concept for understanding novice supervisors' practices, although longitudinal research is needed to provide insight into adaptation of supervision practices.
- Experienced supervisors may negotiate supervision in a similar dilemmatic space (De Kleijn et al., 2014; Wichmann-Hansen et al., 2015)
- Implication 1: focus supervisor training on learning to notice student understanding
- Implication 2: student learning might benefit from the practices found in other contexts in which research, teaching and learning are closely linked

Thank you!

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