

Mentoring for student reflection and employability competences: A pre-test post-test study

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Mentoring for student reflection and employability competences: A quasi-experimental study

Abstract

Given the dynamic and fast-evolving labour market, developing students' employability competences has become of utmost importance for higher education institutions. To develop these competences, the ability to reflect is essential, as it helps students to identify their learning needs and make plans for further development. However, reflective abilities are not easy to acquire and students need guidance to help them reflect. Therefore, mentoring is often used as an instructional approach to stimulate students to reflect. When looking at prior research, empirical evidence on the relationship between mentoring and employability competences is scarce, and especially the mediating role of reflection has rarely been researched. Consequently, this quasi-experimental study researched this mediating relationship by employing a pretest-posttest design. Data were collected at four similar mentoring programs in higher education within the Netherlands and Belgium ($n = 160$). The path analysis demonstrated that, first, trust and availability, autonomy support and empathy significantly increased students' employability competences. Second, it was found that autonomy support and similarity stimulated students' critical reflection significantly. Third, critical reflection significantly influenced students' employability competences. Last, it was found that reflection partially mediated the relationship between mentoring (autonomy support and similarity) and employability. These results demonstrate that mentoring programs in higher education enable students to develop their reflective abilities and, in turn, their employability competences. Furthermore, it provides mentoring program directors and mentors with concrete guidelines on which mentor support types (trust and availability, autonomy support, similarity, and empathy) are most effective for developing students' reflective abilities and employability competences.

Extended summary

Introduction. Due to evolving knowledge, technological advances and macroeconomic trends, employees are required to constantly develop and self-manage their careers (Bridgstock, 2009). To prepare higher education students for their transition towards this fast-evolving labour market, developing their employability competences – ‘a set of skills, understandings and personal attributes that makes graduates more likely to gain employment and be successful in their chosen

occupations (Yorke, 2006, p. 8) – has become a priority for many higher education institutions (Tynjälä et al., 2003). To develop these competences, the ability to reflect is of utmost importance (Mann et al., 2019). Through reflection, students can identify their strengths and skills gaps, and make plans to further develop their competences (Boud, 1985; Dacre Pool et al., 2014). However, reflection is not an intuitive process and reflective abilities are not inherent (Bennett et al., 2016). Instead, reflection requires guidance and students must be invited to reflect (Ryan, 2013). Therefore, mentoring is often used as an instructional approach to stimulate students to reflect (Lleó et al., 2018).

Theoretical framework. Mentoring in higher education is defined as “a formalized process based on a developmental relationship between two persons in which one person is more experienced (mentor) than the other (mentee). The mentor provides support, more specifically career, emotional, psychosocial, psychological, and academic support, to promote and facilitate student success, competence, and career development” [Author]. Previous research on the relationship between mentoring and students’ competence development, in general, demonstrated positive effects of mentoring on, for example, professional development (Ehrich et al., 2004), increased self-confidence, or interpersonal skill development (Hansford et al., 2003). Yet, research on the direct relationship between mentoring and employability competences is still very limited. Therefore, it was hypothesized that:

1. Mentoring positively influences students’ employability competences.

Reflection is defined as “the activity of exploring or examining an issue of concern and considering it in relation to personal experiences” (Lundgren & Poell, 2016, p.4). Without high-quality reflection, students might be unlikely to examine how far they have come in the development of their competences and what actions they need to take to develop them further (Dacre Pool et al., 2014). However, reflection requires guidance and students need to engage in a professional development trajectory in which they are provided with opportunities to reflect on their learning experiences (Dacre Pool & Sewell, 2007). For these reasons, mentoring is often used as an instructional approach, as it is precisely the mentor who stimulates students to reflect (Lleó et al., 2018). Only very few studies have examined this relationship and found that mentoring indeed fostered student reflection (e.g., Tonna et al., 2017). However, more empirical research would be essential to confirm these earlier findings. Therefore, it was hypothesized that:

2. Mentoring positively influences student’s reflection

Previous research also highlighted that reflection is an effective tool for students to realise what competences and abilities they have (Stead et al., 2021). Although a limited number of studies researched the relationship between reflection and employability competences, scholars studied the relationship between reflection and other related outcomes, such as academic learning and professional development (e.g., Ghanizadeh, 2017; Liu et al., 2022). Furthermore, research on the mediating role of reflection between mentoring and employability competences is lacking. Consequently, it was hypothesized that:

3. *Reflection positively influences students' employability competences*
4. *Reflection mediates the relationship between mentoring and students' employability competences*

Methodology. Data were collected at four similar mentoring programs in higher education within the Netherlands and Belgium. Participating students ($n = 160$) completed an online questionnaire at the start and end of the mentoring program. Mentoring was measured through the validated Mentoring Support Scale, containing 21 items and six subscales. Reflection was assessed by questioning the highest reflection level of the questionnaire of Kember et al. (2008), i.e. critical reflection. Lastly, employability competences were measured through the validated SECQ scale, containing 35 items and seven subscales (Scoupe et al., accepted). Given the small sample size, a sum score of employability competences was used. A five-point Likert scale was used and Cronbach's alphas ranged from 0.73 to 0.92. Data were analysed by conducting path analyses in AMOS 28.

Results. Trust and availability ($\beta = -.38$, $p = .001$), autonomy support ($\beta = .21$, $p = .041$), and empathy ($\beta = .33$, $p = .001$) showed a direct, significant effect on the development of students' employability competences. Therefore, hypothesis 1 was partially supported. Concerning the relationship between mentoring and reflection, at T1 only autonomy support ($\beta = -.30$, $p = .027$) had a significant effect on critical reflection. At T2, both similarity ($\beta = .31$, $p = .002$) and autonomy support ($\beta = -.16$, $p = .036$) had a significant effect on students' reflection. Consequently, hypothesis 2 was partially supported. Additionally, we found that critical reflection significantly influenced students' employability competences at T1 ($\beta = .17$, $p = .028$) and T2 ($\beta = .16$, $p = .023$), thereby confirming hypothesis 3. Lastly, the model fit indices demonstrated that the partial mediation model was stronger than the full mediation model. At T2, similarity ($\beta = .31$, $p = .002$) and autonomy support ($\beta = -.16$, $p = .036$) had a significant effect on critical reflection. Furthermore, critical reflection significantly influenced employability competences at T2 ($\beta = .16$, $p = .023$). Moreover, critical reflection showed a full mediating effect

on the relationship between similarity ($\beta = .33$, $p = .004$) and employability competences ($\beta = .21$, $p = .005$) at T2. Therefore, the results partially confirmed hypothesis 4.

Significance. The results demonstrate that mentoring programs in higher education enable students to develop their reflective abilities and, in turn, their employability competences. This study was the first to demonstrate the partially mediating effect of reflection on the relationship between mentoring and employability competences. More specifically, trust and availability, autonomy support, similarity, and empathy showed to be important types of mentoring support. This is highly informative for higher education institutions, as well as mentoring program directors and mentors, as it provides concrete guidelines on which mentor support types are most effective for developing employability competences.

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