The Work Context and Mentoring: Do Job Characteristics Influence Mentoring Received?

Torbjørn Waaland
Department of Cultural Studies and Languages, University of Stavanger, Norway
Contact author: torbjorn.waaland@uis.no

ABSTRACT
The purpose of this paper is to investigate the influence of job characteristics on mentoring received. A survey questionnaire was sent to 435 employees from 29 preschools in Norway and 284 responses were returned, a response rate of 65.3%. Exploratory factor analysis and stepwise regression analysis were used to analyze the data while *age* was used as a control variable. The results reveal that social support and feedback from others have a significant influence on mentoring received, indicating that coordination of work based on these job characteristics could promote mentoring received in preschools.

Keywords: *cognitive tasks, task variety, feedback from others, social support, mentoring received*

Introduction

Norwegian preschools comprise the context of this study. Recent pedagogical and organizational changes in Norwegian preschools have resulted in new tasks and new ways of performing these tasks, for example, pedagogical leaders are now expected to involve themselves in network-based cooperation with professionals outside the pre-schools. Changing needs among the children have also promoted interdisciplinary cooperation with primary schools and other public services involved in the welfare and upbringing of children. These work-related changes could challenge the roles that employees take in formalized mentoring relationships.

In 2017, Norway adopted the current framework plan for preschools (NOU, 2017). This document emphasizes that early childhood is an important part of lifelong learning, and aims to secure the quality and control of resources invested in early childhood education. Consequently, preschools are expected to provide children aged one to five years with opportunities for development and activities. The core objective is to create a good and safe childhood through education, mentoring and care. Although the framework plan is relatively broad, it nevertheless provides detailed descriptions of the goals, content and methods applicable to early childhood learning. Lohmander et al. (2009) provide a more thorough description of the Norwegian preschool context.

Theoretical framework

In a previous survey, Waaland (2013) asked respondents to describe the mentoring they received from colleagues tasked with the formal responsibility of mentoring them on the job, emphasizing the workplace-learning arena. In the same study, the role of receiving mentoring was seen as a function of tasks characterized by information processing and problem-solving. To the best of my knowledge, apart from this study there are no other studies that have investigated the influence of job characteristics on mentoring received.

However, there is international research on mentoring that calls for increased research on the relationship between work and mentoring. In their review of research on mentoring, Haggard et al. (2011) cover a research period of 30 years and conclude with the following: "In fact, in our review, we did not identify any articles dealing with the issue of job/professional context and mentoring" (p. 295). Their recommendations for future research are in line with the purpose of this article: "We encourage researchers to consider how contextual factors, such as occupations and work settings, might constrain both the construct of mentoring and the experience of mentoring relationships for protégés and mentors" (p. 300). Similarly, a 2015 review establishes that no studies so far have examined the consequences of multiplexity between work and non-work roles (Janssen et al., 2015, p. 503). Spooner-Lane (2016, p. 271) suggests that future research needs to consider how the context of mentoring programmes for beginning teachers in primary schools are addressed in the planning and delivery of such programmes. Finally, a recent review study on e-mentoring in higher education recommends that future research should investigate the relationship between organizational infrastructure and the implementation of e-mentoring programmes (Tinoco-Giraldo et al., 2020, p. 21). Through a mixed-method design based on interviews and questionnaires, Shanks et al. (2012) show how a workplace-learning environment based on the roles of formalized mentors is important to support teachers' professional learning. Moreover, job characteristics theory, the main theoretical approach of this article, considers learning and development as outcomes of job design (Parker, 2015). In a changing workplace, job redesign can affect the role-taking of employees. Parker and Wall (1998) refer to this as a job-related learning and development process based on "occupational socialization" (p. 34). Based on this view, it can

be assumed that job characteristics will influence the role-taking of employees who receive mentoring from others.

With this in mind, the purpose of this study is to investigate a broader set of job characteristics to reveal which of these have the largest influence on mentoring received.

Mentoring received

Mentoring received reflects the role of the protégé who receives knowledge and skills from a colleague (Waaland, 2013; Bozionelos, 2004). Ellinger and Bostrom (1999) argue that individuals, due to changing work environments, have to seek out developmental support from their colleagues. An employee will assume the role of protégé dependent upon the actual challenges of work. Therefore, the ultimate purpose of mentoring is to establish a learning environment where an employee can achieve his or her utmost potential through a relationship with an experienced formalized mentor. An important outcome for the protégé is assimilation into the organization by developing commitment (Offstein & Shah, 2004). Decker and Nathan (1985) use a social learning perspective when they suggest that the protégé acquires important managerial skills by observing an effective senior manager. For pre-school teachers, this is vital because training to become pedagogical leaders is central to both their education as well as their career in the pre-school. Bozionelos (2004) argues that receiving mentoring may increase the likelihood of providing support for this view. Protégés can also provide loyal political support for the mentor, strengthening the mentor's relationship with other people in the organization, and therefore furthering the career of the mentor (Feldman et al., 1999).

Age

Some empirical research has shown that the age of people receiving mentoring was significantly associated with the premature closure of mentoring relationships (Valenti, 2016; Kupersmidt et. al, 2017; Burmeister et al. 2019). Finkelstein et al. (2003) found that the age of the protégé or those receiving mentoring was negatively related to the duration of the mentoring relationship. This suggests that older protégés in both formal and informal mentoring relationships have more short-lived mentoring relationships. The finding that older protégés report less career support in their work relationships may indicate that mentors of older protégés do not see these individuals as having potential for development or advancement.

Job characteristics

The job characteristics theory was developed by Hackman and Oldham (1975, 1976) and is frequently used to study learning and development as outcomes of job restructuring. Morgeson and Humphrey (2006) divide Hackman's and Oldham's job characteristics theory into three categories: task, social and knowledge characteristics. Task characteristics are concerned with how the work itself is accomplished, while social

characteristics are expected to increase pro-social work behaviors. Knowledge characteristics reflect the kinds of knowledge, skill, and ability demands that are placed on an individual as a function of what is done on the job. Consequently, these categories are included in the present study.

Cognitive tasks

Cognitive tasks are knowledge characteristics, which, as opposed to manual or routine tasks, are difficult to automate (Nembhard & Uzumeri, 2000). Furthermore, the combination of information processing and problem-solving is a central aspect of cognitive tasks (Morgeson & Humphrey, 2006). The educational staff in preschools are confronted with complex needs among children. Therefore, such jobs require higher levels of active information processing to solve problems. Information processing at work reflects the degree to which a job requires attending to and processing data or other information. Higher levels of information processing are expected to change the requirements for jobs, as employees require high levels of knowledge in high information-processing jobs to complete their work (Morgeson & Humphrey, 2006).

The mentoring process of school leaders is the main focus of Peters' (2010) work. The author found that the mentoring process could be described as the mentor fulfilling a model for problem-solving. After interviewing mentors and new teachers, Gardiner (2017) found that formal mentoring programs help protégés solve problems in the classroom that do not have obvious solutions. One would, therefore, expect an increased need for mentoring when employees are confronted with complicated tasks that challenge their cognitive abilities. With this focus on cognitive tasks, it is interesting to note that Hou *et al.* (2009) argue for increased use of knowledge-sharing as a problem-solving strategy at work. Even though they do not relate their study to mentoring, they argue that the sharing of teacher-related knowledge may help teachers solve a variety of problems that they face. There is also literature that relates mentoring to the cognitive development of protégés (Rhodes et al., 2006). Since the key function of mentoring is to assist protégés new to their job, it is expected that protégés will develop more autonomy when confronted with cognitive challenges at work as the mentoring relationship progresses. If the role of receiving mentoring is important for the initial training of new employees, this role becomes even more central when protégés are confronted with cognitive tasks. A previous study by Waaland (2014) has shown that cognitive tasks have a significant influence on mentoring provided. Therefore, it is expected that the job characteristic *cognitive tasks* will influence mentoring received.

H1. The variability of cognitive tasks will influence mentoring received when controlled for by the age of the respondents.

Task variety

Task variety refers to the degree to which a job requires employees to perform a wide range of tasks on the job (Morgeson & Humphrey, 2006). Richardson and Placier (2001)

argue that this is also highly relevant for teachers, as teachers' work, based on strong mandates from parents and the authorities, changes all the time. Even though they do not relate task variety directly to mentoring received, Richardson and Placier describe how teachers' work varies and changes through "discussions with other teachers, an evaluation by an administrator or involvement in a workshop" (2001, p. 908). Spillane, Halverson, and Diamond (2001) suggest that organizational structures constitute the varied activities in schools, and that these structures are created and recreated by the actions of both teachers and leaders working in schools. Based on an understanding of instruction as a varied and multidimensional practice, it is expected that teachers will involve themselves with mentoring-related activities together with parents, other teachers, and professionals outside schools. Consequently, the following hypothesis was formulated.

H2. Task variety will influence the occurrence of mentoring received when controlled for by cognitive tasks and the age of the respondents.

Feedback from others

Feedback from others reflects the degree to which others in the organization provide information about performance (Morgeson & Humphrey, 2006). In particular, coworkers and supervisors are two potentially important sources of feedback. Feedback from others is different from feedback from the job, as it focuses more broadly on the interpersonal component of feedback rather than the performance information derived directly from the work itself. Perry et al. (2007) argue that new teachers adopt a teaching role based on guidance, feedback, and social reinforcement during practice to support this notion. On these occasions, student teachers and mentors collaboratively plan for and reflect on activities in their classrooms, and receive feedback from colleagues about their practices. Therefore, when the role of receiving mentoring arises from the social context of co-workers or supervisors, one might expect a job characteristic such as feedback from others to be positively associated with the role of mentoring received. Research has shown that accurate and timely feedback from supervisors and mentors plays a central role in work environments. Hobson et al. (2009) argue that schools can promote teachers' critical self-reflection through the combination of feedback and mentoring. In particular, drawing attention to the need of a 'perfect' mentor, Jenkinson and Benson (2017, p. 41) claim that feedback should be provided in different ways to meet different needs, as all protégés learn and respond to feedback differently.

Social support

Definitions of social support in the literature (Morgeson & Humphrey, 2006; Wang & Huang, 2019) show a close conceptual relationship to the role of receiving mentoring. Sandardos and Chambers (2019) emphasize that mentoring is a social support mechanism that is grounded in assisting individual development and thereby

represents a collaborative social relationship between a mentor and a protégé. Social support is the extent to which there are opportunities to gather assistance and advice from supervisors and co-workers. Guilaran et al. (2018) suggest that ideas of social support, such as the opportunity to develop friendship opportunities at work, were one of the key insights to establish a buffer against negative work outcomes. Social support has been linked to increased well-being at work and is strongly related to work outcomes such as organizational commitment, reduced turnover intentions, reduced role ambiguity and role conflict (Humphrey et al., 2007). Reduced role ambiguity and role conflict, in particular, indicate that taking on the role of receiving mentoring could be influenced by social support. Salami (2008) does not indicate social support as a predictor of mentoring received, but he still shows a positive relationship between social support and mentoring relationships. A more direct relationship between social support and mentoring provided was investigated in a confirmatory study (Waaland, 2017). Based on this rationale, it is expected that the job characteristic *feedback from others* and *social support* will influence mentoring received.

H3. The variability of social job characteristics, such as feedback from others and social support, will increase the occurrence of mentoring received when controlled for by cognitive tasks, task variety and the age of the respondents.

Method
Sample and procedures
This study used a cross-sectional research design with a pilot study and survey questionnaires as the main procedure to gather data. The sample is based on a volunteer sampling approach where the employees were free to fill out the questionnaire. Such a procedure involves drawing samples that are both easily accessible and willing to participate in a study. The unit of analysis for the main survey was 435 employees from 29 preschools. They all received a questionnaire, and 284 usable questionnaires were returned, yielding a 65.3% response rate. Participants who answered the survey questionnaire gave their consent voluntarily, thereby comprising a convenience sampling approach supported by Teddlie and Yu (2007). Missing data were tested for certain biases, but results indicate that the missing data are randomly distributed. The average age of the respondents is 36.8 years (SD = 10.29), with average job tenure of 6.2 years (SD = 5.71) and average career tenure of 10.41 (SD = 10.13).

An information meeting was held, which was attended by one educational leader from each preschool. The purpose of the meeting was to inform the teachers about the main aims of the study with a recommendation that the questionnaires be filled out by the employees individually. First, the questionnaire was tested in cooperation with three preschools that did not participate in the main study. The purpose of the pilot test was to ensure that the items, especially the translation into Norwegian of the international validated items, were unbiased and meaningful to the respondents.

Second, the questionnaires were brought to the educational management of the 29 preschools and then distributed to all employees.

Ethical considerations

The presented research was conducted in accordance with the Code of Ethics of the Norwegian Centre for Data Research (NSD, n.d.). Permission necessary to conduct the study was obtained in accordance with the policy of each preschool. Participants received written and oral information on voluntary participation, data protection and confidentiality. All the participants were informed that they could contact the researchers if they had any further questions.

Measures

The items that were used to measure the dependent and independent variables were all assessed by using a five-point Likert scale (see Table 1). Responses were given on a five-point scale ranging from "Disagree strongly" (1) to "Agree strongly" (5). Measures that were originally developed in English were translated into Norwegian and then checked by a bilingual English language researcher.

Dependent variable
Mentoring received

To assess the degree of mentoring received, three items developed by Waaland (2013) were used. The respondents indicated the extent to which they received mentoring from a colleague through statements such as: "It is a part of my colleagues' job to mentor me", "Employees in our organization work as mentors in relation to the learning of their colleagues" and "Colleagues mentor me when I need training in my job". Cronbach's alpha for the whole sample was .67.

Independent variables

The items measuring the independent variables were all adapted from Morgeson and Humphrey (2006). Six items measure cognitive tasks at work. These items are a mixture of information processing items such as: "The job requires me to monitor a great deal of information" and problem-solving items such as: "The job involves solving problems that have no obvious answers". Cronbach's alpha for the whole sample was .88. Four items were used to measure task variety and feedback from others. Task variety items are illustrated with statements such as: "The job involves a great deal of task variety". Cronbach's alpha for the whole sample was .88. Items measuring feedback from others are illustrated with statements such as: "I receive a great deal of information from my manager and coworkers about my job performance". Cronbach's alpha for the whole sample was .80. Three items were used to measure social support. These items are illustrated with statements such as: "I have the chance in my job to get to know other people". Cronbach's alpha for the whole sample was .76. Finally, research has shown that the control variable *age* can influence

perceptions of mentoring processes, both mentoring relationships in general (Allen, 2007) and mentoring received in particular (Burmeister et al., 2019). Therefore, it was expected that age could be a potential covariate in the analyses. *Age* was reported as the elapsed number of years.

Data analysis

The Statistical Package for Social Science (SPSS) version 18.0 was used to analyze the data (Norusis, 2007). Initially, exploratory factor analysis (EFA) was used to assess the validity and reliability of measurement scales (Nunally & Bernstein, 1994). This was followed by other tests, namely the Kaiser–Mayer–Olkin Test (KMO), Bartlett's Test of Sphericity, eigenvalue, variance explained and Cronbach Alpha (α). Secondly, Pearson Correlation (r) analysis and descriptive statistics were conducted to analyze the constructs based on the data set (Tabachnick & Fiedell, 2001). Finally, stepwise regression analysis was used to assess the magnitude and direction of the independent variables on the dependent variable.

Factor analysis

A principal component analysis with orthogonal (varimax) rotation was performed to identify the constructs based on the observed items. This analysis produced five components with eigenvalues greater than 1.00 and a total variance for all constructs of 66.68% (Table 1). Eigenvalues greater than 1.00 are considered large enough to be retained in subsequent analyses (Tabachnick & Fiedell, 2001). The results from Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) statistic suggest that the number of items (N = 20) is appropriate to yield common factors.

Table 1: Factor loadings of items representing cognitive tasks (COGN), task variety (TVAR), feedback from others (FBACK), social support (SUP) and mentoring received (MREC).

	COGN α = .88	TVAR α = .88	FBACK α = .80	SUP α = .76	MREC α = .67
The job requires me to monitor a great deal of information.	**0.80**	0.13	0.02	0.14	0.03
The job requires that I engage in a large amount of thinking.	**0.83**	0.15	0.11	0.09	0.01
The job requires me to keep track of more than one thing at a time.	**0.83**	0.17	0.02	0.08	0.02
The job requires me to analyze a lot of information.	**0.79**	0.06	0.14	0.05	−0.05
The job involves solving problems that have no obvious correct answer.	**0.80**	0.17	−0.08	0.03	0.15
The job requires me to be creative.	**0.55**	0.25	0.11	0.07	0.19
The job involves a great deal of task variety.	0.05	**0.81**	0.13	0.05	−0.03
The job involves doing a number of different things.	0.19	**0.88**	0.06	0.16	0.07

(*Continued*)

Table 1: (*Continued*)

	COGN α = .88	TVAR α = .88	FBACK α = .80	SUP α = .76	MREC α = .67
The job requires the performance of a wide range of tasks.	0.36	**0.79**	0.11	0.10	0.07
The job involves performing a variety of tasks.	0.33	**0.82**	0.11	0.06	0.13
I receive a great deal of information from my manager and coworkers about my job performance.	−0.03	0.08	**0.87**	0.05	0.14
Other people in the organization, such as managers and coworkers, provide information about the effectiveness (e.g., quality and quantity) of my job performance.	−0.01	0.02	**0.90**	0.04	0.16
I receive feedback on my performance from other people in my organization (such as my manager or coworkers).	0.13	0.14	**0.75**	0.07	0.10
I receive feedback on my performance from people outside my organization.	0.18	0.14	**0.58**	0.28	−0.05
I have the opportunity to develop close friendships in my job.	−0.02	−0.01	0.21	**0.68**	0.23
I have the chance in my job to get to know other people.	0.18	0.11	0.06	**0.88**	0.04
I have the opportunity to meet with others in my work.	0.17	0.19	0.08	**0.83**	0.01
Colleagues mentor me when I need training in my job.	0.07	0.04	0.15	−0.06	**0.73**
It is a part of my colleagues' job to mentor me.	0.03	0.02	0.05	0.10	**0.85**
Employees in our organization work as mentors in relation to the learning of their colleagues.	0.11	0.11	0.10	0.21	**0.72**
Eigenvalues	5.99	2.73	1.80	1.65	1.56
Variance explained	29.94	13.66	9.02	8.23	7.81

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization

Results

Descriptive statistics and correlations

The results of the factor analysis yielded five different components describing cognitive tasks, task variety, feedback from others, social support and mentoring received (see Table 1). In this study, all five scales achieved an acceptable reliability level with Cronbach's alpha above .67.

The means, standard deviations and the inter-correlations of the study variables are presented in Table 2. An examination of the inter-correlations between the independent and dependent variables showed that they are moderately, but significantly, correlated. The significant correlations between the dependent variable *mentoring received* and the independent variables range from .16 to .44. This supports the results of the factor and reliability analysis and shows that the dependent and independent variables possess

some degree of discriminant validity. The control variable *age* showed a relatively strong correlation (r = −.26, p < .01) with *mentoring received.* The correlations between the independent variables indicate that there is no problem with multicollinearity.

Table 2: Descriptive statistics and Pearson correlations (N = 284).

	M	SD	N	1	2	3	4	5	6
Age	36.90	10.29	269	1					
Cognitive tasks	4.18	.62	278	−.07	1				
Task variety	4.34	.56	277	.03	.44**	1			
Feedback from others	3.72	.67	278	.02	.20**	.27**	1		
Social support	4.47	.47	279	.07	.23**	.25**	.30**	1	
Mentoring received	3.51	.72	272	−.26**	.17**	.16**	.26**	.24**	1

Note: M = mean, SD = standard deviation, N = number of observations
**p < .01

Regression analysis

A four-step hierarchical regression analysis was performed, as shown in Table 3. The dependent variable in this analysis was *mentoring received.* The control variable *age* was entered into the regression equation in Step 1, the knowledge characteristic in Step 2, the task characteristic in Step 3 and, finally, the social characteristics in Step 4. This procedure determined the unique contribution of both the control variable in Step 1 and the independent variables in Step 2 to 4, as indicated by the change in the R^2 value. In this way, the study can remove the influence of the demographic variable *age* on the dependent variable, thereby revealing the unique influence of knowledge characteristics, task characteristics, and social characteristics.

Table 3: Four step regression analyses for the influence of age, cognitive tasks, task variety, feedback from others and social support on mentoring received.

	Dependent variable Mentoring received			
	Step 1	Step 2	Step 3	Step 4
Age	−.26***	−.25***	−.23***	−.24***
Cognitive tasks		.14*	.06	.05
Task variety			.14*	.07
Feedback from others				.17**
Social support				.15*
R^2	.07*	.09*	.09*	.15**
Change in R^2		.02*	.002	.06*

Note: ***p < .001; **p < .01; *p < .05

The hypotheses aimed to explore the influence of job characteristics on mentoring received when controlled for by the demographic variable *age*. When *age* was entered in Step 1, it showed a significant influence (β = -26, p < .01) on the dependent variable

(see Table 3) indicating that the older the employees the less they tend to receive mentoring. This also gives an initial indication that *age* represents a potential covariate in combination with the independent variables.

Hypothesis 1 (H1) was supported when the knowledge characteristic *cognitive tasks* (β = .14, p < .05) was entered into the regression equation in Step 2. As expected, *cognitive tasks*, characterized by information processing and problem-solving, indicates the need for receiving mentoring in a competence intensive work environment. By entering the knowledge characteristic into the regression equations, *age* and *cognitive tasks* account for 9% of explained variance (R^2), which is an increase in explained variance (ΔR^2) of 2%.

The task characteristic, *task variety* (β = .14, p < .05), showed a significant influence on mentoring received when it was entered into the regression equations in Step 3, thereby supporting hypothesis 2 (H2). As compared to *cognitive tasks*, a work environment where employees are involved in a variety of tasks seems to be associated with a need for formal mentoring relationships. Still, entering *task variety* into the regression equations did not account for any significant change in explained variance.

Finally, the social characteristics were entered into the regression equations and gave support for hypothesis 3 (H3). *Feedback from others* (β = .17, p < .01) and *social support* (β = .15, p < .05) showed a significant influence on mentoring received. This could indicate that social aspects of work environments are important if protégés are expected to involve themselves in formalized mentoring relationships. As compared to knowledge and task characteristics, social characteristics account for 15% of the explained variance, an increase of 6%. However, *age* had a relatively strong but negative influence on mentoring received from step 1 through step 4 (β = −.24, p < .001), thereby indicating that the longer the career length of the employees, the less they tend to involve themselves in mentoring relationships.

Discussion and implications for future research

This study aimed to investigate the relationship between knowledge, task and social job characteristics at work and mentoring received. Three hypotheses were formulated, and the results provided support for all three. When all the job characteristics were entered into the regression equations, the social job characteristics showed a significant influence on mentoring received.

First, the social job characteristic *feedback from others* is expected to increase the occurrence of receiving mentoring at work. Perry et al. (2013) argue that students' practice often takes the form of modeling relevant teaching activities when they receive instrumental support from peers and experienced teachers. Such activities encourage students to support one another and, by evaluating their own and others' work, they receive support from their teachers and peers that is instrumental to their learning goals. In preschools, mentoring relationships could work as a learning community where feedback produces significant benefits to learning and educational achievement, thereby promoting the workplace as a learning arena (Boud et al., 1999).

Second, feedback from others is closely related to the need for support from colleagues. According to McLaughlin (1997), the workplace as a learning community also increases social support among teachers when dealing with challenging requests at work. Preschool teachers are familiar with receiving mentoring as part of their education. Jacobi (1991) argues that individuals who have participated in higher education may be more familiar with mentoring because many colleges and universities have implemented mentoring programs as part of professional education. Rots, Kelchtermans and Aelterman (2012) reveal that positive mentoring experiences during teacher education boost the self-esteem of future teachers and mentors (p. 7). Empirical research has revealed the importance of workplace mentoring as a supportive strategy for beginning teachers because early career teachers often experience difficulties in the transition to teaching (Hobson et al., 2009; Howe, 2006; Ulvik, Smith & Helleve, 2009; Wang, Odell & Schwille, 2008). In sum, previous research on mentoring provides a powerful argument in support of these practices, and is highly relevant to workplaces such as Norwegian preschools, where preschool teachers have a duty and obligation to involve themselves in supportive mentoring strategies. The results of the present study support previous findings by Waaland (2013) and indicate the need to coordinate tasks characterized by social interaction with mentoring from more experienced colleagues, to achieve goals in preschools. The results also reveal the relatively high and negative influence of the demographic variable *age* on mentoring received, thereby supporting the studies of Burmeister et al. (2019) and Allen (2007).

With this in mind, future research should consider the strong covariance that age accounts for on mentoring received when entered into the regression equation together with job characteristics. Traditionally, mentoring involves an older employee supporting a younger employee. However, Finkelstein et al. (2003) argue that this relationship can also be reversed, i.e. a younger employee with more experience in a certain work domain provides mentoring to an older employee with less experience in that domain. Both traditional mentoring and reverse mentoring involve career support, encompassing, for example, knowledge sharing or networking, and psychosocial support, encompassing friendship or stimulating personal development. Noteworthy, Murphy (2012) posits that reverse mentoring is best initiated through formal mentoring programs, since informal mentoring relationships rarely develop between younger mentors and older protégés. Traditional and reverse mentoring relationships are thought to be associated with unique benefits. Future research should study whether the older workforce in educational institutions would benefit from reverse mentoring in their social interaction with younger peers.

Limitations of this study

The present study has several limitations. Its main limitation is related to the way the sample was drawn. If the purpose of the study was to make generalizations, utilizing a non-random sampling approach, such as convenience sampling, is problematic.

Deming (1950) argues that convenience sampling may be considered as a type of judgment sampling where a minimal amount of "judgment" is used in the decision to select a particular sample. In contrast to Deming's criticism, Highhouse and Gillespie (2008) argue that convenience sampling is probably the most common sampling method used because of its informality, simplicity, adequacy, and cost-effectiveness.

Another limitation is that self-reporting can lead to reporting biases (Podsakoff & Organ, 1986). Nevertheless, self-reporting is well established in the study of mentoring relationships (Waaland, 2013; Bozionelos, 2004). Finally, it is important to bear in mind that the predictive power of job characteristics to mentoring received does not confirm that the predictors cause the outcome variable. A cross-sectional design such as this does not allow for statements on effect or causality since any causal suggestions are preliminary and based on theory and previous empirical research. Therefore, future studies should obtain longitudinal data to document causal relationships between the independent and dependent variables.

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