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Mind the gap: Early-career teachers' level of preparedness, professional development, working conditions, and feelings of distress

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Abstract

In the first years of a teaching career, teachers experience high levels of distress, and the attrition rate appears to be high. Early-career teachers do not always feel well prepared for their job and feel insufficient support during their first experiences as a teacher. Induction programs, professional development, and school support could equip early-career teachers with the additional teaching repertoire they need and improve their well-being. The current study aimed to contribute insights into the importance of the level of preparedness, professional development, and working conditions for early-career teachers' well-being. Based on multi-level regression analysis of TALIS 2018 data of more than 77,000 teachers in 24 European countries, the impact of the level of preparedness, professional development, and working conditions have been examined on teachers' feelings of distress during their first years of teaching. Early-career teachers have been divided into two groups: novice teachers (with no more than 2 years of teaching experience) and advanced beginners (with between 2 and 5 years of teaching experience). These two groups were compared with mid-and late-career teachers (with more than 5 years of teaching experience). Level of preparedness and professional development variables were only weakly related to teachers' feelings of distress, whereas working conditions were strongly related to early-career teachers' feelings of distress. In particular, high workload and classroom discipline issues were strongly and positively related to teachers' feelings of distress. Differences between the two early-career teacher groups and the group of mid- and late-career teachers were marginal. Yet, additional research is needed into the quality and the variety of initial teacher education and induction programs to come to more rigorous conclusions about the potential effects of different programs.

Keywords Early-career teachers · Distress · Induction · Professional development · Working conditions

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1 Introduction

Across Europe teacher shortages occur in secondary education, affecting the quality of students' learning environment with class cancellations, combined classes, and overloaded teachers, with a relatively high attrition rate of early-career teachers (Federičová, 2021; Räsänen et al., 2020). During the first years of teaching, many teachers do not feel well prepared for their job, and some feel insufficiently supported in school (Richards et al., 2019). This might lead to feelings of distress, low job satisfaction, and intention to leave the profession (Redding & Ngyuen, 2020). One of the reasons for the relatively high turnover of beginning teachers is the gap between theory (as addressed in teacher education) and practice (as manifested in schools). This gap commonly is called the practice, reality, or transfer shock and relates to the transition from learner to professional. Beginning teachers apply the theoretical knowledge they learned at the university and struggle with the reality of their class and school. They have to combine many tasks at the same time, including instruction, creating a safe learning environment for their students, realizing quality learning for all their students, managing classroom discipline as well as collaborating with their colleagues and school principal (Caspersen & Raeen, 2014; Lindqvist, 2019). Initial teacher education programs could help to reduce the transfer shock and improve beginning teachers' well-being (Pan et al., 2023). Additionally, induction programs for new teachers, support from colleagues and leaders, and possibilities for professional development should also reduce this transfer shock, equipping new teachers with the teaching repertoire they need and decreasing their feelings of distress (Darling-Hammond et al., 2002). Working conditions in school can have a negative or a positive influence -depending on whether these are adverse or supportive characteristics of the school environment- on teachers' satisfaction with the school their work at and the teaching profession in general (Admiraal & Kittelsen Røberg, 2023; Gouëdard et al., 2023; Zakaryia, 2020). Yet not much is known about the importance of teachers' level of preparedness, their professional development, and working conditions for their feelings of distress during their first years of teaching, compared to later career stages. The current study aimed to contribute insights into the value of learning opportunities and working conditions in schools for early-career teachers in secondary education.

2 Literature review

2.1 Early-career teachers' level of preparedness

Teaching is an emotionally challenging profession and high levels of teacher stress have been linked with adverse professional outcomes, including burnout, absenteeism, and attrition (Bottiani et al., 2019; Herman et al., 2020). Over time patterns of chronic high stress and low coping of teachers are associated

with reduced feelings of job satisfaction (Skaalvik & Skaalvik, 2007), decreased motivation for teaching, low teaching effectiveness (Santoro, 2018), and feelings of burnout (Bottiani et al., 2019). Feelings of burnout are characterized by the depletion of emotional resources, feeling negatively toward others, and losing a feeling of accomplishment in one's work (Leiter & Maslach, 2016). Teachers' feelings of dissatisfaction and burnout might, in turn, lead to the intention to leave the profession (Skaalvik & Skaalvik, 2015). In many countries, almost half of the teachers leave the profession within their first 5 years (Räsänen et al., 2020; Ryan et al., 2017). When institutions educate teachers who do not remain in the field, it means a discrepancy between the economic resources invested and the professional output that the teacher contributes back to the institution, school, and teaching profession. Considering the national teacher shortages across Europe and other parts of the world (Holmqvist, 2019), high numbers of early-career teachers leaving the profession are highly undesirable.

As beginning teachers learn to apply their theoretical knowledge in a practical context, they struggle with this transition from learner-teacher to beginning teacher. Being beginning teachers also comes with the expectation that these teachers must develop skills that their experienced colleagues have already acquired, such as skills to reduce stress, improve lesson planning, execute classroom management effectively, and perform required administrative tasks, and other skills that ultimately will improve student progress (Ingersoll & Strong, 2011). Teacher education programs are found to be critical in preparing teacher candidates for the profession and in extending support for new teachers into the induction years (Bastian & Marks, 2017). Extensive teacher preparation is significantly correlated with novices' self-efficacy, their focus on student learning, and retention (Darling-Hammond et al., 2002; Tricarico et al., 2015). Yet, there are many varieties in initial teacher education programs and in many countries, teachers are employed that did not complete an initial teacher education program to increase the size of the teaching force (Coppe et al., 2023; Troesch & Bauer, 2020). This means that beginning teachers differ substantially in the way they are prepared for the teaching profession, which can have consequences for the quality of their teaching and satisfaction with the profession. So-called second-career teachers—teachers with a first career outside the teaching profession and no initial teacher education certificate—are found to be less competent (Troesch & Bauer, 2020) and less satisfied with their job (Fütterer et al., 2023) than first-career teachers. Induction programs and professional development activities are often used to prepare these second-career teachers for their professional demands or to further develop first-career teachers after their initial teacher education program.

2.2 Induction and professional development

Induction initiatives typically aim to improve the quality of beginning teachers by providing on-site support and guidance which is especially critical during the first 2 or 3 years of teaching (Feiman-Nemser, 2001; Ingersoll, 2012). Although a large variety exists in setups of induction programs, teacher education program faculty

mostly provide focused coursework and supports geared toward effective clinical experiences, extended student teaching in year-long placements (or even two or three school years), constructive mentoring offered by a university supervisor and a mentor teacher in school, and opportunities centered on reflection (Bastian & Marks, 2017; Henry et al., 2011). Additionally, Darling-Hammond et al. (2002) found that high-quality and comprehensive induction programs with mentoring tempered the negative effects of poor preparation and teachers' desires to leave the profession. DeAngelis et al. (2013) support this claim and add that a combination of effective teacher preparation and comprehensive school district induction supports helps to increase teacher retention (see also Ingersoll, 2012; Ingersoll et al., 2012). Yet Reeves et al. (2022), based on a secondary analysis of TALIS 2018 US teacher data, did not find statistically significant relationships between induction activities on the one hand, and teacher practices, teacher self-efficacy, and teachers' job satisfaction, on the other hand. Nevertheless, teacher education and school-system induction support are understood to be crucial for new teachers' development, retention in the profession, and impact on student learning.

2.3 Working conditions in school

In addition to initial teacher education and induction programs, providing new teachers with support in school that they need may ensure that they do not get overwhelmed and lower their levels of stress (Bastian & Marks, 2017; Ingersoll, 2012). Previous work on school conditions and the affective outcomes of teachers, such as job satisfaction and well-being, provide a list of conditions that can work out either negatively or positively. Workload and student misbehavior are two adverse characteristics of teachers' work in school and have been found to be related to well-being (Skaalvik & Skaalvik, 2018), feelings of burnout (Fernet et al., 2013), emotional exhaustion (Betoret, 2009), health issues (Jackson & Stevens, 2022), less commitment to teacher duties (Hakanen et al., 2006), less self-efficacy (Collie et al., 2012), lower job satisfaction (Toropova et al., 2021), a greater intention to leave the teaching profession (Skaalvik & Skaalvik, 2017) and actually leaving the profession (Amitai & Van Houtte, 2022). In the latter study, Amitai and Van Houtte (2022) showed—based on interviews with 21 former teachers, who recently quit the teaching profession—that the main reason for the new teachers (i.e., teachers with teaching experience of 5 years or less) to leave their job was job insecurity and workload. Concerning job security, the teachers in this study mentioned it takes too long to get a tenured position and that schools essentially count on temporary teachers who fill in for tenured teachers who are absent, mostly due to sickness, burnout, and parental leaves. Despite being essential for the teacher supply of schools, new teachers who were all employed on temporary contracts felt that they were not treated well. The second 'push factor', workload, included the lack of time to prepare for teaching and the blurred boundaries between private and professional lives. Other push factors that the novice job-leavers mentioned refer to classroom management difficulties and lack of support from colleagues and school leadership. In general, new teachers addressed the lack of teamwork and collaboration among colleagues, and the need for feedback to improve

their sense of competence in class and for mentorship that could lead to more trusting relationships among teachers. An open-door policy where teachers observe each other would also serve the needs of early-career teachers. The importance of positive relationships with colleagues and school management and of a supportive school culture, in general, is confirmed in other studies. Such a supportive culture in school appears to have positive relationships with teachers' school commitment (Meredith et al., 2023), their commitment to teaching (Skaalvik & Skaalvik, 2018), self-confidence (Collie et al., 2012), their sense of belonging (Skaalvik & Skaalvik, 2013), and their job satisfaction (Richter et al., 2022).

2.4 Previous work on TALIS 2018

The important role of working conditions in school for teachers' job satisfaction and related outcomes variables has been examined in many studies using large-scale data sets, such as TALIS or PISA data. Based on TALIS 2018 data, working conditions in schools appeared to be related to teachers' job satisfaction (Admiraal & Kittelsen Røberg, 2023; Gouëard et al., 2023; Jung & Woo, 2022; Reeves et al., 2022), their motivation to teach (Liu et al., 2023), and their self-efficacy in teaching (Burić & Kim, 2021; Choi & Mao, 2021; Gouëard et al., 2023; Reeves et al., 2022; Zakariya, 2020). A common finding from the studies on factors that are related to teachers' job satisfaction is that individual teacher characteristics, such as motivation to teach and self-efficacy, are important, as well as how teachers perceive their working environment. Concerning the school environment, teachers' workload, student behavior, and collaboration with colleagues appeared to be the most influential ones. In only two of these studies, the level of preparedness, teacher induction, and professional development were studied, showing small positive relationships with both self-efficacy (Choi & Mao, 2021; Reeves et al., 2022) and job satisfaction (Reeves et al., 2022).

Two other TALIS studies examined teachers' well-being or feelings of distress. Based on the analysis of data from Alberta, the USA, Australia, and New Zealand, Jerrim and Sims (2021) show a statistically significant relationship between teachers' working hours and workload stress (positive) and well-being (negative). Based on data from Taiwan, Pan et al. (2023) concluded that high workload and student behavior both harmed teachers' well-being and that teachers' perceived preparedness had no relationship with teachers' well-being. Both studies did not differentiate between the different career stages of teachers.

Finally, Van den Borre et al. (2021) did focus on early-career teachers in analyzing TALIS 2018 data. The authors examined the relationship of both individual teacher characteristics and school environment variables with early-career teachers' retention intention (in the number of years someone intends to continue teaching). Teachers' motivation to teach and become a teacher, their satisfaction with their salary, their perception of how the teaching profession is valued in society, their level of preparedness through initial teacher education, and collaborative school culture had a statistically significant and positive relationship with early-career teachers' retention intention; perceived barriers for professional development showed a negative relationship.

3 This study

Early-career teachers might experience feelings of distress as they face tensions within the larger struggle to reconcile theory and practice in the act of teaching. These feelings of distress can be softened with effective initial teacher education, induction programs, and professional development, providing them with the support they need. In addition, working conditions in school can either support or undermine early-career teachers' teaching with consequences for their feelings of distress. Previous work on TALIS 2018 teacher data examined other dependent variables than feelings of distress, such as job satisfaction, self-efficacy, or motivation to teach, focused on teacher characteristics or one particular school environment variable as a predictor, or did not distinguish between teachers from different career stages. Van de Borre et al. (2021) did study early-career teachers and defined them as teachers with no more than 5 years of teaching experience. In this study, two groups of early-career teachers have been distinguished, based on previous work on teachers' career stages (Booth et al., 2021; Dreyfus, 2004): teachers with 2 years or less teaching experience (novice teachers) and teachers with more than 2 years and a maximum of 5 years teaching experience (advanced beginners). Based on TALIS 2018 teacher data in 24 European countries, the current study examined the impact of the level of preparedness, professional development, and working conditions on early-career teachers' feelings of distress. The following research questions have been formulated:

1. To what extent do novice teachers and advanced beginners differ in their feelings of distress from mid- and late-career teachers?
2. To what extent is the perceived level of preparedness of novice teachers and advanced beginners related to their feelings of distress?
3. To what extent is the professional development of novice teachers and advanced beginners related to their feelings of distress?
4. To what extent are the working conditions of novice teachers and advanced beginners related to their feelings of distress?

4 Methods

4.1 Procedure

The procedure for the development and administration of the TALIS 2018 questionnaire is described in a technical report (OECD, 2019). This report also describes how the data collection has been monitored and which quality checks have been carried out. The current study focused on the data for lower secondary education as in the TALIS teacher data set much more data is available for lower secondary education than for primary education. In most countries, a sample was drawn with 200 schools, except for Malta (61 schools), Cyprus (99), Belgium-French (120), Finland,

Latvia, Netherlands, Slovenia (all 150), Czech Republic (220), Austria (279) and Spain (399). Within the schools, the questionnaire was distributed to 20 teachers or all teachers if fewer than 20 teachers were employed in a school. The number of students, denomination, and degree of urbanization were considered in the selection of schools. Selected schools were examined for a proportional distribution according to subject area, age, and gender. Data from a school were included in the final data file if at least 50% of the teachers contacted had completed a questionnaire. Various quality checks have been carried out that indicate that the final included data are representative. All documents that are relevant to information about TALIS 2018 (the questionnaire itself, the technical report on the data collection, the analysis plan containing the variables and possible analyses, and the conceptual framework underlying the questionnaire) can be accessed via the OECD website (https://www.oecd.org/education/talis/talis-2018-data.htm). In the description of the variables below, references are included to the specific items from the TALIS teacher questionnaire.

4.2 Participants

In total, 77,285 teachers from 4404 schools participated (see Table 1). Response rates at the school level vary from 72% in Denmark to 100% in many other countries. In Table 2, the background characteristics of both groups of early-career teachers are summarized. In total, 5728 novice teachers and 7218 advanced beginners completed the questionnaire. Most early-career teachers were female teachers, had a master's degree, and had a full-time position in a school. Both groups of early-career teachers differed in employment with 57% of the novice teachers having a fixed appointment and 56% of the advanced beginners having a tenured position. The results for the two early-career teacher groups have been compared to a reference group that was formed by 63,634 so-called mid- and late-career teachers (i.e. with more than 5 years of teaching experience). From the entire sample of 77,285 teachers 705 teachers were excluded from further analyses because they did not complete the item about teaching experience as a teacher (item 11b).

4.3 Measures

The measures of the variables that were clustered into the Perceived level of preparedness, Professional development, Working conditions, and Feelings of distress have been derived from the TALIS 2018 questionnaire (OECD, 2019). The items that were used in the current study are included in "Appendix". Exploratory factor analyses with oblique rotation have been performed on the items to extract the variables. All factor analyses have been carried out within each cluster of items as presented in the TALIS 2018 questionnaire, except for items 48a-h and 49a-e. One factor analysis was performed on this latter set of items because these were presented in the TALIS 2018 questionnaire as items on school climate. Descriptive statistics for each variable, per teacher-career group, are presented in Table 3.

Table 1 Number of teachers (percentages between brackets) and schools, per country

Country	$N_{schools}$ Sampled	$N_{schools}$ Valid	Response rate	$N_{teachers}$
Austria	277*	246	89	4255 (5.5)
Belgium-Dutch	200	182	91	3122 (4.0)
Belgium-French	20	120	100	2135 (2.8)
Bulgaria	200	200	100	2862 (3.7)
Croatia	196*	188	96	3358 (4.3)
Cyprus	99	88	89	1611 (2.1)
Czech Republic	219*	219	100	3447 (4.5)
Denmark	196*	141	72	2001 (2.6)
England	192*	149	78	2327 (3.1)
Estonia	195*	195	100	3004 (3.9)
Finland	148*	148	100	2851 (3.7)
France	199*	176	88	3006 (3.9)
Hungary	193*	189	98	3245 (4.2)
Italy	193*	191	99	3612 (4.7)
Latvia	148*	135	91	2315 (3.0)
Lithuania	195*	195	100	3759 (4.9)
Malta	58*	55	95	1656 (2.1)
Netherlands	146*	116	79	1884 (2.4)
Norway	200	185	93	4154 (5.4)
Portugal	200	200	100	3676 (4.8)
Rumania	199*	199	100	3658 (4.7)
Slovakia	199*	176	88	3015 (3.9)
Slovenia	150	132	88	2094 (2.7)
Spain	399	399	100	7407 (9.6)
Sweden	192*	180	94	2782 (3.6)

*Some sampled schools were not eligible

4.3.1 Perceived level of preparedness

Teachers' perceived level of preparedness relates to two clusters of items. First, of 12 aspects of teaching (items 6Ba to 6Bl), teachers indicated the extent to which initial teacher education prepared them well (1 = not at all, 4 = very well). Due to a high number of missing values, the last two items of preparedness (items 6Bk and 6Bl) were deleted from further analyses. Two factors were extracted explaining 63% of the variance in item scores. The first factor was labeled Initial Teacher Education (ITE) General referring to general teaching tasks such as subject teaching and classroom practice (items 6Ba-6Bd). The second factor was labeled ITE Specific with items such as teaching in a mixed-ability setting and teaching cross-curricular skills (items 6Be-6Bj). The reliability in terms of Cronbach's α was 0.82 and 0.87, respectively.

Table 2 Sample characteristics, per teacher-career group

	Novice Teachers	Advanced beginners	Mid- and late-career teachers
	N = 5728	*N* = 7218	*N* = 63,634
Gender (item 1)			
Male (0)	1815 (31.7)	2382 (33.0)	17,128 (26.9)
Female (1)	3913 (68.3)	4836 (67.0)	46,505 (73.1)
Highest level formal education (item 3)			
BA or lower (0)	2369 (46.0)	2694 (41.0)	23,721 (41.3)
MA or higher (1)	2783 (54.0)	3879 (59.0)	33,647 (58.7)
Employment (item 9)			
Fixed (0)	3264 (57.2)	3136 (43.6)	6811 (10.7)
Tenured (1)	2443 (42.8)	4064 (56.4)	56,689 (89.3)
Employment status (item 10b)			
Part-time (80% or less) (0)	1854 (32.7)	1930 (26.9)	12,928 (20.4)
Full-time (90% or more) (1)	3821 (67.3)	5251 (73.1)	50,343 (79.6)
	M (*SD*)	*M* (*SD*)	*M* (*SD*)
Teaching experience in years (item 11b)			
In years	1.11 (0.81)	3.96 (0.82)	20.66 (9.66)
Working hours per week (item 16)			
In school	35.16 (16.2)	36.34 (15.3)	37.03 (14.73)

N number of teachers with valid responses, *M* mean score, *SD* standard deviation

Second, teachers indicated on which topic they thought they needed professional development (PD; items 27a-n; 1 = no need at present, 4 = high level of need). From exploratory factor analyses, two factors were extracted explaining 56% of the variance in scores. The first factor, Need for PD General, included items referring to subject knowledge, pedagogy, and classroom management (items 27a-f, l). The second factor was labeled Need for PD Target Groups and included teaching students with special needs, teaching in a multicultural setting, and communicating with people from different cultures (items 27i,j,n). Cronbach's α for the two factors was 0.86 and 0.74, respectively. Three items (27 km) were not included because of cross-loading and one item (27 g) was deleted because it lowered the reliability of the second factor.

4.3.2 Professional development

For teachers' PD, information has been extracted from the questionnaire data that refers to teachers' induction and PD. First, teachers indicated whether they participated in a formal (item 19a) or an informal (item 19b) induction program at either the school they worked at or during their first employment (yes/no). Second, teachers indicated whether they had an assigned mentor to support them

Table 3 Descriptive statistics for predictors and dependent variable feelings of distress

	Novice teachers		Advanced beginners		Mid-and late-career teachers	
	N (%)	*M* (*SD*)	*N* (%)	*M* (*SD*)	*N* (%)	*M* (*SD*)
Level of preparedness						
ITE general		2.91 (0.63)		2.88 (0.62)		2.95 (0.65)
ITE specific		2.37 (0.69)		2.32 (0.68)		2.25 (0.75)
Needs pd general		2.49 (0.68)		2.41 (0.65)		2.31 (0.68)
Needs pd target groups		2.50 (0.81)		2.46 (0.80)		2.36 (0.81)
PD						
Formal induction	2497 (46.1)		3,369 (48.8)		26,646 (44.2)	
Informal induction	2450 (47.4)		3,242 (49.0)		26,700 (45.9)	
Mentor assigned	1533 (27.5)		738 (10.4)		1,602 (2.6)	
PD impact on practice	4028 (80.0)		5192 (80.5)		44,830 (79.2)	
Barriers PD		2.09 (0.56)		2.15 (0.53)		2.17 (0.55)
Working conditions						
Team teaching		2.51 (1.19)		2.51 (1.17)		2.53 (1.13)
Sharing experiences		3.98 (1.12)		3.97 (1.08)		3.93 (1.04)
Innovative culture		2.94 (0.62)		2.86 (0.62)		2.91 (0.61)
Participative culture		2.90 (0.55)		2.84 (0.56)		2.88 (0.56)
Togetherness		2.98 (0.54)		2.89 (0.55)		2.90 (0.54)
Safe school climate		3.26 (0.45)		3.24 (0.44)		3.22 (0.43)
High workload		2.09 (0.68)		2.18 (0.68)		2.25 (0.68)
Classroom discipline		2.09 (0.80)		2.00 (0.77)		1.95 (0.78)
Feelings of distress						
Distress		1.99 (0.75)		2.04 (0.74)		2.12 (0.77)

PD professional development, *ITE* Initial Teacher Education, *N* number of teachers with valid responses, *M* mean score, *SD* standard deviation

(item 21a, yes/no). Concerning PD, two aspects were examined of how PD works out in school. Teachers indicated whether at least one of the PD activities they attended, had a positive impact on their teaching practice (item 25; yes/no). In addition, barriers to professional development (PD barriers) were examined (item 28). Two factors were extracted from the factor analysis explaining 52% of the variance in item scores. After reliability analyses, these two scales have been merged into one scale measuring the perceived barriers to attending PD activities (Barriers PD; items 28a-g). Items were measured on a 4-point Likert-type scale with 1 = strongly disagree and 4- = strongly. Cronbach's α of Barriers PD was 0.71.

4.3.3 Working conditions

Four aspects related to the school as a place for learning, development, and support (or lack thereof) have been measured related to collaboration with colleagues, innovative attitudes of colleagues, school culture, and stressful working conditions.

First, teachers completed items about collaboration between teachers in school. Exploratory factor analysis with oblique rotation explaining 52% of the variance in scores suggested two scales: one about Team teaching (team teaching, observing and providing each other with feedback, joint activities; items 33a-c) and one about sharing materials, activities, and experiences (Sharing experiences; items 33d-h). Items for team teaching and sharing experiences were measured on a 6-point scale with 1 = never, 2 = once a year or less, 3 = 2–4 times a year, 4 = 5–10 times a year, 5 = 1–3 times a month and 6 = once a week or more. The reliability in terms of Cronbach's α was 0.56 and 0.75, respectively.

Second, teachers indicated to what extent an innovative culture in school applies (items 32a-d, new ideas for teaching and learning, open to change, new way to solve problems, new ideas are supported). One factor was extracted from the factor analysis explaining 76% of the variance in item scores. Cronbach's α of this factor was 0.90.

Third, three factors were extracted from the factor analysis on items related to school climate (items 48 and 49; 65% explained variance): one scale about the participation of staff, parents, and students (Participative school culture; items 48a-c), one scale about mutual support and common beliefs and rules (Togetherness; items 48e-h) and one scale about trust and good relationships (Safe school climate; items 49a-e). One item (48d) was deleted because of cross-loadings. Items for an innovative culture, participative culture, togetherness, and safe school climate were measured on a 4-point Likert-type scale with 1 = strongly disagree and 4 = strongly agree. Cronbach's α for these factors was 0.82 (Participative culture), 0.80 (Togetherness), and 0.81 (Safe school climate).

Fourth, sources of stress have been listed (items 52a-k) of which teachers indicated to what extent they experienced these on a 4-point Likert-type scale with 1 = not at all and 4 = a lot. Two factors extracted from the factor analysis explained 59% of the variance in item scores: High workload, referring to too many things to do (items 52a-e), and Classroom discipline issues (items 52 g and h). The other items were deleted because of high cross-loadings. Cronbach's α for both factors was 0.77 and 0.67, respectively.

4.3.4 Feelings of distress

One factor was extracted from the exploratory factor analysis and explained 75% of the variance in item scores (items 51a-d). Feelings of distress was a collection of three of the four original items (items 51a,c,d), referring to negative influences of work on mental and physical health. Item 51b was left out because of low factor loading. Items were measured on a 4-point Likert-type scale with 1 = not at all and 4 = a lot. The reliability in terms of Cronbach's α was 0.84.

4.3.5 Covariates

Covariates refer to participants' gender (0 = male; 1 = female), employment (0 = fixed; 1 = tenured), employment status (0 = parti-time; 1 = full-time), and working hours per week.

4.4 Analysis

All composite variables include items that were normally distributed with skewness smaller than |2|, kurtosis smaller than |3|, and similar factor loadings in the factor analyses. Reliability analyses showed satisfying reliability for all composite variables with a Cronbach $\alpha > 0.70$ (Nunally, 1978), except for Team teaching and Classroom discipline, which included only three items and two items, respectively.

To answer the research question a multilevel regression analysis has been performed. As the teacher data are nested within schools and countries, first a variance components analysis with random components at teacher, school, and country level has been performed showing that variance at all levels differed significantly from 0 with the most variance in feelings of distress explained at the teacher level (84%). Then, a three-level random intercept model was performed to answer the research questions separating variance at the teacher level from variance at both other levels. All predictors were measured at the teacher level. The random intercept model included the teacher group (novice teachers, advanced beginners, and mid- and late-career teachers), perceived level of preparedness variables, PD variables, working condition variables, and the interaction between the teacher group and the other independent variables as predictors, feelings of distress as the dependent variable, and teachers' gender, employment, employment status and working hours per week as covariates. The variable Highest level of formal education (BA or MA) was left out of the analysis due to a relatively high number of missing values. The final analysis has been performed on 55,326 teachers with valid data on all variables included in the model. All variables measured at the interval level were centered around the grand mean to facilitate the interpretation of the coefficients.

The variables Formal induction, Informal induction, and Impact of PD on practice generated many missing values (some 4000, 6000, and 8000, respectively). Most probably, many teachers who did not attend one of the induction or PD programs skipped these items instead of indicating 'no'. We have recoded the missing values of these three variables into a score of 0 ('no') and rerun the regression analysis. The results were similar to the results of the previous regression analysis. Therefore, we kept the three variables without imputing missing values. All other variables showed less than 1% missing values or no missing values at all. The multilevel analyses were carried out with MLwIN 2.27 software.

5 Results

The results of the full random intercept model analysis are summarized in Table 4. The results of the variance-components model are presented at the bottom of Table 4. Each research question will be answered in a separate section regarding the related results in Table 4.

5.1 Teacher-career groups and feelings of distress

The results of the upper part of Table 4 show that novice teachers reported statistically significantly higher scores on feelings of distress than mid- and late-career teachers (ß = -0.06). No statistically significant differences were found between advanced beginners and mid- and late-career teachers concerning their feelings of distress (ß = -0.03). Furthermore, as can be seen from Table 4, females reported a higher level of distress than men (ß = 0.04), tenured employees reported higher feelings of distress than teachers with fixed employment (ß = 0.08), and part-time teachers reported higher scores on distress than full-time teachers (ß = -0.05.). All effects can be understood as small effects with $f^2 < 0.02$ (Cohen, 1988). No statistically significant differences were found related to working hours per week.

5.2 Perceived level of preparedness

As shown in Table 4, one variable related to teachers' level of preparedness showed a statistically significant relationship with their feelings of distress: The higher teachers reported their level of preparedness based on initial teacher education for specific aspects of teaching (e.g., teaching in mixed-ability setting and cross-curricular teaching skills), the fewer feelings of distress they reported (ß = -0.02). The effect can be understood as a small effect with $f^2 < 0.01$ (Cohen, 1988). No other statistically significant main effects or interaction effects have been found.

5.3 Professional development

Concerning variables related to PD, three predictors were statistically significantly related to the feelings of distress of teachers. First, the more barriers for PD teachers reported, the stronger their feelings of distress (ß = 0.12). Second, teachers who experienced an impact of PD activities on their own teaching practice reported fewer feelings of distress (ß = -0.05). Third, teachers with a mentor assigned also reported fewer feelings of distress (ß = -0.04). Furthermore, four interaction effects have been found. First, novice teachers who attended a formal induction program reported stronger feelings of distress than the other novice teachers and mid- and late-career teachers (ß = 0.05). Second, advanced beginners with a mentor assigned also reported stronger feelings of distress than the other advanced beginners and the mid-and late-career teachers (ß = 0.07). Third, novice teachers who attended an informal induction program, reported less strong feelings of distress, compared to the other novice teachers and the mid-and late-career teachers (ß = -0.05). Finally,

Table 4 Fixed and random effects of random intercept regression analysis on teachers' feelings of distress with the teacher-career group, level of preparedness, professional development, and working conditions as predictors

	ß	*SE*	σ^2 (*SE*)
Intercept	2.12	0.03*	
Covariates			
Female (Ref = male)	0.04	0.01*	
Tenured Employment (Ref = fixed)	0.08	0.01*	
Full-time employment (Ref = part-time)	-0.05	0.01*	
Working hours per week	0	0	
Teacher career groups			
Novice teachers (ref = mid- and late-career teachers)	-0.06	0.02*	
Advanced beginners (ref = mid- and late-career teachers)	0.03	0.02	
Level of preparedness			
ITE general	0	0.01	
ITE specific	-0.02	0.01*	
Needs pd general	0.01	0.01	
Needs pd target groups	-0.01	0	
Professional development			
Formal induction (Ref = no)	-0.01	0.01	
Informal induction (Ref = no)	0.01	0.01	
Mentor assigned (Ref = no)	-0.04	0.02*	
PD impact on practice (Ref = no)	-0.05	0.01*	
Barriers PD	0.12	0.01*	
Working conditions			
Team teaching	0	0	
Sharing experiences	-0.01	0	
Innovative culture	0.01	0.01	
Participative culture	-0.02	0.01*	
Togetherness	-0.15	0.01*	
Safe school climate	-0.02	0.01*	
High workload	0.37	0.01*	
Classroom discipline	0.29	0.00*	
Interaction effects Level of preparedness (Ref = mid- and late-career teachers)			
ITE general × novice teachers	-0.01	0.02	
ITE general × advanced beginners	-0.01	0.02	
ITE specific × novice teachers	-0.03	0.02	
ITE specific × advanced beginners	0	0.02	
Needs pd general × novice teachers	0.01	0.02	
Needs pd general × advanced beginners	0	0.02	
Needs pd target groups × novice teachers	0.02	0.01	
Needs pd target groups × advanced beginners	0	0.01	
Interaction effects Professional development (Ref = mid- and late-career teachers)			
Formal induction × novice teachers	0.05	0.02*	
Formal induction × advanced beginners	0	0.02	

Table 4 (continued)

	ß	*SE*	σ^2 (*SE*)
Informal induction × novice teachers	-0.05	0.02*	
Informal induction × advanced beginners	-0.01	0.02	
Mentor assigned × novice teachers	0	0.03	
Mentor assigned × advanced beginners	0.07	0.03*	
PD impact on practice × novice teachers	0.03	0.03	
PD impact on practice × advanced beginners	-0.05	0.02*	
Barriers PD × novice teachers	0.02	0.02	
Barriers PD × advanced beginners	-0.02	0.02	
Interaction effects Working conditions (Ref = mid- and late-career teachers)			
Team teaching × novice teachers	-0.01	0.01	
Team teaching × advanced beginners	-0.01	0.01	
Sharing experiences × novice teachers	-0.01	0.01	
Sharing experiences × advanced beginners	0.02	0.01*	
Innovative culture × novice teachers	0	0.01	
Innovative culture × advanced beginners	0.01	0.02	
Participative culture × novice teachers	0.02	0.02	
Participative culture × advanced beginners	0.01	0.02	
Togetherness × novice teachers	-0.01	0.03	
Togetherness × advanced beginners	-0.01	0.02	
Safe school climate × novice teachers	0.03	0.03	
Safe school climate × advanced beginners	-0.02	0.02	
High workload × novice teachers	-0.01	0.02	
Higher workload × advanced beginners	0.03	0.01*	
Classroom discipline × novice teachers	-0.03	0.01*	
Classroom discipline × advanced beginners	-0.03	0.01*	
Random			
Country level			0.024 (0.007)
School level			0.010 (0.001)
Teacher level			0.316 (0.002)
Variance components model			
Country level			0.066 (0.019)
School level			0.027 (0.001)
Teacher level			0.493 (0.003)

PD professional development, *ITE* Initial Teacher Education, $N = 55{,}326$, ß = standardized regression coefficient, *SE* = standard error

*Significant with $\alpha = 0.05$

advanced beginners who reported the impact of their PD activities on their teaching practice also reported lower feelings of distress than the other advance beginners and the mid-and late-career teachers (ß = -0.05). The main effect of barriers to PD can be understood as a moderate effect ($f^2 = 0.06$); the others as small effects ($f^2 < 0.02$; Cohen, 1988).

5.4 Working conditions

With respect to the variables related to teachers' working conditions, five statistically significant main effects have been found. The two strongest effects related to adverse working conditions: The more teachers reported a high workload and issues with classroom discipline, the stronger their feelings of distress (ß = 0.37 and ß = 0.29, respectively). Furthermore, three negative relationships with distress have been found: The more teachers reported a participative culture in school, togetherness, and a safe work and learning climate, the less strong feelings of distress they reported ß = -0.02, -0.15 and ß = -0.02, respectively). The other three working conditions did not show a statistically significant relationship with feelings of distress.

Four statistically significant interaction effects have been found. First, for both novice teachers and advanced beginners, the positive relationship between classroom discipline issues and feelings of distress was less strong, compared to mid- and late-career teachers (ß = -0.03 for both groups). Second, the negative relationship between sharing experiences and feelings of distress was less strong for advanced beginners than for mid- and late-career teachers (ß = 0.02). Finally, the negative relationship between high workload and feelings of distress was stronger for advanced beginners than for mid- and late-career teachers (ß = 0.03). All interaction effects and the main effects of participative culture and safe work and learning climate can be understood as small effects ($f^2 < 0.02$)', the main effect of togetherness as a moderate effect ($f^2 = 0.05$), and the main effects of the adverse working conditions, high workload, and discipline issues, as large effects ($f^2 > 0.20$).

6 Discussion and conclusion

Based on the analysis of TALIS 2018 teacher data from 24 European countries the impact of the level of preparedness, PD, and working conditions has been examined on early-career teachers' feelings of distress during their first years of teaching. Two early-career teacher groups have been distinguished: novice teachers with teaching experience of 2 years or less and advanced beginners with teaching experience between two and five years. The findings of these early-career groups have been compared with the results of the mid-and late-career teachers, who had more than 5 years of teaching experience.

Novice teachers reported statistically significantly lower levels of feelings of distress than the mid-and late-career teachers, with no statistically significant difference between advanced beginners and mid- and late-career teachers. This finding might mean that the so-called transfer shock of new teachers only applies to fresh-starting teachers who do not have much teaching experience yet. After already 2 years, levels of feelings of distress seem to be similar to the more experienced teachers. In many countries, the importance of an extensive teaching practicum as part of teacher education programs is recognized (Darling-Hammond, 2017), which aims at reducing as well as shortening new teachers' transfer shock.

Concerning predictors that explain differences in feelings of distress between teachers, level of preparedness and professional development variables were not or only weakly related to teachers' feelings of distress. Yet, some working conditions showed strong relationships with feelings of distress. High workload and classroom discipline issues showed the strongest, positive, relationships with feelings of distress; togetherness, participative culture, and safe work and learning climate showed less strong negative relationships with teachers' feelings of distress. Concerning differences between both groups of early-career teachers and mid- and late-career teachers, only a few small interaction effects have been found. This means that working conditions had a strong relationship with feelings of distress, similarly for teachers from all career groups.

6.1 Importance of initial teacher education, induction, and professional development

As mentioned above, the relative importance of initial teacher education, induction, and PD for decreasing early-career teachers' feelings of distress seems to be limited. This finding contradicts findings from previous work on the value of initial teacher education and induction for early-career teachers, which showed a positive impact on teachers' self-efficacy, and their focus on student learning and retention (Bastian & Marks, 2017; Henry et al., 2011). Particularly the lack of any statistically significant relationship with attending an induction program is remarkable as Darling-Hammond et al. (2002) found that high-quality and comprehensive induction programs tempered the negative effects of poor preparation and teachers' desires to leave teaching. In the current study, we did not gather data about the perceived quality of induction programs or differences in the set-up of the programs; teachers just indicated whether they have attended one. More information about the perceived quality and variety in the set-up of the programs, such as mentoring, PD activities, and reflection, will help to explain the potential effects of induction programs on teachers' feelings of distress. The lack of nuance in measuring the effect of induction programs might also be the reason why Reeves et al. (2022) in their analyses of TALIS 2018 teacher data from the US did not find statistically significant relationships between induction, on the one hand, and teachers' teaching practices, their self-efficacy, and their job satisfaction, on the other hand. The findings of the current study mean that the value of induction programs and PD activities—in addition to their initial teacher education experiences—can be called into question, warranting more research on the effects of specific aspects of induction and PD activities. Finally, concerning teachers' PD, the perceived barriers to PD in school were positively related to feelings of distress for both early-career and mid- and late-career teachers confirming previous work done in this area (Struyven & Vanthournout, 2014; Tang et al., 2022).

6.2 Importance of workplace support and working conditions

The relative importance of the workplace for early-career teachers was confirmed in the current study, although this was also the case for mid- and late-career teachers. Adverse working conditions such as high workload and issues in classroom discipline were positively related to early-career teachers' feelings of distress, with

similar relationships for mid-and late-career teachers. These adverse working conditions were found to be important for teachers' job satisfaction and retention in other studies as well (e.g., Admiraal & Kittelsen Røberg, 2023; Amitai & Van Houtte, 2022; Toropova et al., 2021). In the current study, some working conditions that have commonly been negatively associated with teachers' job satisfaction such as interpersonal relationships with students (e.g., Toropova et al., 2021), their lack of motivation for teaching and the teaching profession (Skaalvik & Skaalvik, 2018) and diversity in student population (Betoret, 2009), could not be examined properly as suitable predictors are not available in the TALIS 2018 teacher data set.

Although the adverse working conditions showed the strongest relationship with teachers' feelings of distress, we found some statistically significant effects of supportive working conditions as well. Togetherness—mutual support and common beliefs and rules in school—seems to be an important source for teachers to decrease their feelings of distress, which is backed up by findings from previous studies on teachers' working conditions and their job satisfaction, both for early-career teachers (Stewart & Jansky, 2022) and experienced teachers (Skaalvik & Skaalvik, 2018). Safe school climate was a supporting working condition with a weak positive relationship with feelings of distress confirming the generally positive relationships between a supportive school climate and teachers' job satisfaction (c.f., Admiraal et al., 2016; Skaalvik & Skaalvik, 2018; Tang et al., 2022). Other supporting conditions such as sharing experiences, team teaching, and innovative school culture did not show any statistically significant relationships with teachers' feelings of distress. One reason for not finding statistically significant relationships between a collaborative school culture (as measured in the current study with Team teaching and Sharing experiences) might be that these relationships were suppressed by the strong impact of adverse working conditions.

6.3 Limitations and suggestion for future research

The current study reports on analyses of TALIS 2018 data, without any additional data collection to validate data interpretations. Additional qualitative data, such as individual interviews, 360-degree feedback sessions, or focus-group meetings in schools, will add additional insights and provide explanations of some of the contrasting findings found. In particular, more detailed information about the induction programs of early-career teachers and qualitative information about their PD activities and collaboration with colleagues in school might give additional explanations of the relationships found in the current study.

A second limitation is the correlational design of the current study, which means relationships between predictors and teachers' feelings of distress can be reciprocal. For example, teachers who perceived a high workload reported relatively high levels of distress, but teachers who felt high levels of distress might also perceive their work as more demanding. A longitudinal design or cross-lagged panel design can provide insights into the causal character of the relationships found. Yet, a longitudinal design is difficult to realize with TALIS 2018 data, because teachers completed

the list anonymously, teachers might have moved to other schools, and TALIS questionnaire items (and thus the predictors) have changed over time.

A third limitation, also related to the correlation design of the current study, is the third variable problem. For example, the strong relationships between stressful working conditions and feelings of distress might be caused by high correlations of both variables with characteristics of the school population or the urban setting of a school. Although the inclusion of a variety of predictors in the regression analysis made the third variables problem less critical in the current study, some possibly relevant predictors of both working conditions and feelings of distress were not covered, such as school population, urban setting, and school size.

6.4 Conclusions and implications

Implications for Human Resources Management (HRM) practice in school can be derived from the insights into the importance of working conditions in school. HRM can support, for example, job redesigns with fewer additional tasks and with training and coaching sessions to support teachers in coping with job demands. Facilitating teachers' continuous PD instead of raising barriers for PD is another HRM practice that can easily be implemented and retained, although teacher shortages will counteract these HRM policies. Instigating a collaborative culture in school is a main aspect school leaders and teachers can work on. Admiraal et al. (2021) examined various interventions in schools to develop schools as professional learning communities, such as collaborating on a shared school vision of teaching and learning, facilitating professional learning activities for all staff including coaching, peer review, workshops, and master classes, teacher collaboration in teaching, educational action research, professional learning, changing the school organization with more opportunity to meet each other, and leadership that is not only focused on work organization but also staff learning and development. This kind of intervention can help to make a school more of a place for the learning and development of teachers and can decrease teachers' level of distress connected to school and their profession.

An implication for policies at the national level is to support schools and school leaders in their efforts to establish a supportive school culture. Findings from the current study, as well as previous work (e.g., Xia et al., 2023), suggest that investing in a supportive culture can pay off with more satisfied and less distressed teachers in school, keeping more teachers in the profession. Another policy implication at the national level is to facilitate teachers' work and working hours. Teachers in the OECD countries vary substantially in hours that are included in a full-time job, but also in the hours, teachers can devote directly to the primary process of teaching (OECD, 2022). However, in many countries teacher shortages even increase teachers' workload and national policies towards reducing teacher workload are not obvious as more teachers are needed to do the teaching. In this way, teacher shortages will lead to even larger teacher shortages, as dissatisfied teachers will leave the profession.

In this study on TALIS 2018 data from 24 European countries, it seems that working conditions in schools are more important when it comes to teachers'

feelings of distress than initial teacher education, induction programs, and PD. This is not different for early-career teachers or mid- and late-career teachers. The way to keep new teachers in the profession is to decrease stressful working conditions and to increase workplace support, connected to the school environment and to the profession, which is also helping mid- and late-career teachers to stay in the profession.

Appendix TALIS 2018 Teacher questionnaire: Items used in the current study

The full questionnaire can be found at: https://www.oecd.org/education/school/TALIS-2018-MS-Teacher-Questionnaire-ENG.pdf.

Background and qualification

1. Are you female or male?

Please mark one choice.

- Female.
- Male.

3 What is the highest level of formal education you have completed?

Please mark one choice.

- Below < ISCED 2011 Level 3 >
- <ISCED 2011 Level 3>
- <ISCED 2011 Level 4>
- <ISCED 2011 Level 5>
- <ISCED 2011 Level 6>
- < ISCED 2011 Level 7>
- < ISCED 2011 Level83>

Current work

9 What is your employment status as a teacher at this school?

Please mark one choice.

- Permanent employment (an on-going contract with no fixed end-point before the age of retirement).
- Fixed-term contract for a period of more than 1 school year.
- Fixed-term contract for a period of 1 school year or less.

10 What is your current employment status as a teacher, in terms of working hours?

Please mark one choice.b) All my teaching employments together

- Full-time (more than 90% of full-time hours.
- Part-time (71–90% of full-time hours).
- Part-time (50–70% of full-time hours).

- Part-time (less than 50% of full-time hours).

11 How many years of work experience do you have, regardless of whether you worked full-time or part-time?

Do not include any extended periods of leave such as maternity/paternity leave.
Please write a number in each row. Write 0 (zero) if none.
Please round up to whole years.

(b) Year(s) working as a teacher in total ….

16 During your most recent complete calendar week, approximately how many 60-min hours did you spend in total on tasks related to your job at this school?

Include time spent on teaching, planning lessons, marking, collaborating with other teachers, participating in staff meetings, participating in professional development and other work tasks. Also include tasks that took place during evenings, weekends or other out of class hours.

A 'complete' calendar week is one that was not shortened by breaks, public holidays, sick leave, etc.

Round to the nearest whole hour.

Hours in total ….

17 Of this total, how many 60-min hours did you spend on teaching at this school during your most recent complete calendar week?

Please only count actual teaching time.

Time spent on preparation, marking, professional development,etc. will be recorded in the next question.

Round to the nearest whole hour.

Hours teaching ….

Professional development

28 How strongly do you agree or disagree that the following present barriers to your participation in professional development?

Please mark one choice in each row (Strongly disagree Disagree Agree Strongly agree)

(a) I do not have the pre-requisites (e.g. qualifications, experience, seniority).
(b) Professional development is too expensive
(c) There is a lack of employer support

(d) Professional development conflicts with my work schedule
(e) I do not have time because of family responsibilities
(f) There is no relevant professional development offered
(g) There are no incentives for participating in professional development

Teaching in general

32 Thinking about the teachers in this school, how strongly do you agree or disagree with the following statements?

Please mark one choice in each row (Strongly disagree Disagree Agree Strongly agree)

(a) Most teachers in this school strive to develop new ideas for teaching and learning.
(b) Most teachers in this school are open to change.
(c) Most teachers in this school search for new ways to solve problems.
(d) Most teachers in this school provide practical support to each other for the application of new ideas.

33 On average, how often do you do the following in this school?

Please mark one choice in each row (Never Once a year or less 2–4 times a year 5-10 times a year 1–3 times a month Once a week or more)

(a) Teach jointly as a team in the same class
(b) Observe other teachers' classes and provide feedback
(c) Engage in joint activities across different classes and age groups (e.g. projects)
(d) Exchange teaching materials with colleagues
(e) Engage in discussions about the learning development of specific students
(f) Work with other teachers in this school to ensure common standards in evaluations for assessing student progress
(g) Attend team conferences
(h) Take part in collaborative professional learning

School climate and job satisfaction

48 How strongly do you agree or disagree with these statements, as applied to this school?

Please mark one choice in each row (Strongly disagree Disagree Agree Strongly agree)

(a) This school provides staff with opportunities to actively participate in school decisions

(b) This school provides parents or guardians with opportunities to actively participate in school decisions
(c) This school provides students with opportunities to actively participate in school decisions
(d) This school has a culture of shared responsibility for school issues
(e) There is a collaborative school culture which is characterised by mutual support
(f) The school staff share a common set of beliefs about teaching and learning
(g) The school staff enforces rules for student behaviour consistently throughout the school
(h) This school encourages staff to lead new initiatives

49 How strongly do you agree or disagree with the following statements about what happens in this school?

Please mark one choice in each row (Strongly disagree Disagree Agree Strongly agree)

(a) Teachers and students usually get on well with each other.
(b) Most teachers believe that the students' well-being is important.
(c) Most teachers are interested in what students have to say.
(d) If a student needs extra assistance, the school provides it.
(e) Teachers can rely on each other.

51 In your experience as a teacher at this school, to what extent do the following occur?

Please mark one choice in each row (Not at all To some extent Quite a bit A lot)

(a) I experience stress in my work.
(b) My job leaves me time for my personal life.
(c) My job negatively impacts my mental health.
(d) My job negatively impacts my physical health.

52 Thinking about your job at this school, to what extent are the following sources of stress in your work?

Please mark one choice in each row (Not at all To some extent Quite a bit A lot)

(a) Having too much lesson preparation
(b) Having too many lessons to teach
(c) Having too much marking
(d) Having too much administrative work to do (e.g. filling out forms)
(e) Having extra duties due to absent teachers
(f) Being held responsible for students' achievement
(g) Maintaining classroom discipline
(h) Being intimidated or verbally abused by students
(i) Keeping up with changing requirements from < local, municipality/regional, state, or national/federal > authorities

(j) Addressing parent or guardian concerns
(k) Modifying lessons for students with special needs

53 We would like to know how you generally feel about your job. How strongly do you agree or disagree with the following statements?

Please mark one choice in each row (Strongly disagree Disagree Agree Strongly agree)

(a) The advantages of being a teacher clearly outweigh the disadvantages.
(b) If I could decide again, I would still choose to work as a teacher.
(c) I would like to change to another school if that were possible.
(d) I regret that I decided to become a teacher.
(e) I enjoy working at this school.
(f) I wonder whether it would have been better to choose another profession.
(g) I would recommend this school as a good place to work.
(h) I think that the teaching profession is valued in society.
(i) I am satisfied with my performance in this school.
(j) All in all, I am satisfied with my job.

54 How strongly do you agree or disagree with the following statements?

Please mark one choice in each row (Strongly disagree Disagree Agree Strongly agree)

(a) I am satisfied with the salary I receive for my work.
(b) Apart from my salary, I am satisfied with the terms of my teaching < contract/ employment > (e.g. benefits, work schedule)
(c) Teachers' views are valued by policymakers in this country/region.
(d) Teachers can influence educational policy in this country/region.
(e) Teachers are valued by the media in this country/region.

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