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TEACHERS' JOB DEMANDS, RESOURCES AND JOB SATISFACTION: SECONDARY ANALYSES OF TALIS 2018 DATA FROM FLANDERS AND THE NETHERLANDS

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Abstract:
Across Europe, teacher shortages occur in both primary and secondary education, affecting the quality of students' learning environment with class cancellations, combined classes, and overloaded teachers, leading to reduced learning opportunities for students. National policies in the Netherlands and Flanders go into the direction of increasing the influx of students into teacher education programmes, improving their study success and increasing retention rates of in-service teachers. In view of these teacher shortages, it is not only important to increase the intake and outflow of students in teacher education programmes, but also to increase job satisfaction of in-service teachers. Based on secondary analyses of TALIS 2018 data from primary and secondary school teachers in the Netherlands and Flanders, work demands, resources available to teachers and their job satisfaction have been examined with use of the Job Demands-Resources model (Demerouti et al., 2001). Regression analyses show that feelings of distress and perceived stress in teaching and classroom management show a negative relationship with job satisfaction. Moreover, social recognition of the teaching profession, a social value as motivation for the teaching profession and a safe learning and working climate in school are positively related to teachers' job satisfaction. The results are discussed in the light of findings from other research on teachers' job satisfaction and research of TALIS data, in particular.

Keywords: TALIS 2018; job satisfaction; teachers; job demands; resources

1. Introduction

Teacher shortage is a major problem for primary and secondary education in the Netherlands and Flanders, as well as in various other countries across Europe. This is only expected to increase in the coming years (OECD, 2020). A number of problems cause the shortage of teachers. Not only do not enough students choose to enter a teacher education programme, many teachers who are already working in school leave the

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teaching profession. In addition to the status and image of the teaching profession, especially for this group of in-service teachers, dissatisfaction with the teaching profession appears to be an important reason why they leave the teaching profession (see e.g. Dupriez et al., 2016; Skaalvik & Skaalvik, 2011, 2017; Wyatt & O'Neill, 2021). It is therefore important to gain insight into teachers' job satisfaction and which demands of the teaching profession and which resources teachers have to meet these demands are related to their job satisfaction. Despite the fact that research has been done into teachers' job satisfaction in the Netherlands (e.g., Admiraal et al., 2016) and Flanders (e.g., Struyven & Vanthournout, 2014), there is no overview of the demands placed on teachers by the profession and the resources they have to deal with these, and how both demands and resources relate to their job satisfaction. Only if we have more insight into these factors, we can develop policy to increase teacher satisfaction in order to retain more teachers in the profession. The present study attempts to contribute to this insight by reanalyzing TALIS data from 2018 for the Netherlands and Flanders.

2. Teachers' job demands, resources and satisfaction

Teachers' job satisfaction has been subject of research for some time, either as a cause of dropout or retention of teachers in the profession (e.g. Struyven & Vanthournout, 2014) or as a result of various factors related to the school environment, the teaching profession and characteristics of the teachers (e.g. Skaalvik & Skaalvik, 2013; 2017). Although teachers in Belgium and the Netherlands appear to be relatively satisfied with their profession (Zakariya et al., 2020), analyses of data from the Survey of Health, Aging and Retirement in Europe (SHARE; Federičá, 2021) indicate that in both the Netherlands and Belgium approximately 25% of those who are or have been teachers have stopped teaching, of which about half of them report they have left the teaching profession and are looking for another job. Although these figures are comparable to those in domain of care, teachers' dropout from the teaching profession can also be seen as a qualitative loss because dropout generally applies more to academically trained teachers (Goldhaber et al., 2011) and to teachers who work in schools with a relatively large number of special-needs students or students from low social backgrounds or from a cultural minority group (Murnane & Steele, 2007). In the current study, the Job Demands-Resources model (JD-R; Demerouti et al., 2001; Bakker & Demerouti, 2007) is used to examine the factors that influence teachers' job satisfaction. This general JD-R model consists of two main elements: the demands from the profession (demands) and the resources available to cope with these demands (resources). Job demands refer to those aspects of the profession that require physical or mental effort and resources refer to those personal, social and organizational aspects of the profession that enable teachers to cope with those demands and reduce any negative effects. In addition, high work demands can lead to feelings of distress and many resources to an increased motivation for the profession. The first is also called the exhaustion process, the second the motivational process. Despite several critical comments on the model (Schaufeli & Tauris, 2013), the JD-R model is a widely

used framework to explain job satisfaction. The JD-R model has also been used in teacher research to explain important outcome measures such as teacher well-being (Skaalvik & Skaalvik, 2018) and retention (Van Droogenbroeck & Spruyt, 2016).

In previous research, teachers' job demands of teachers refer to, among other things, work pressure, student misbehavior, low student motivation, diversity in student population, conflicts with colleagues, lack of administrative support, conflicting values and norms in school, performance goals in school, and different opinions of what a teacher should do (see e.g. Betoret, 2009; Collie et al., 2012; Fernet et al., 2012, 2013; Hakanen et al., 2006; Klassen & Chiu, 2010; Kokkinos, 2007; Severiens et al., 2018; Skaalvik and Skaalvik 2011, 2013, 2018; Spilt et al., 2011) Workload and student misbehavior, in particular, have been found to be related to feelings of stress, emotional exhaustion, less commitment to teacher duties, lower job satisfaction, less self-efficacy, and a greater intention to leave the teaching profession.

Potential resources of teachers have also been identified, especially in research into teacher commitment and satisfaction. These resources relate to, among other things, autonomy or professional space of teachers, good collaborative relationships with colleagues, good relationships with management and parents, opportunities for professional development, perceived future prospects, a school culture in which knowledge and experiences are shared and teachers collaborate, and agreement in norms and values in school (Admiraal, et al., 2016; Collie & Martin, 2017; Fernet et al., 2013; Hakanen et al., 2006; Meirink & Van der Want, 2018; Simbula et al., 2011; Skaalvik & Skaalvik 2011, 2018; Struyven & Vanthournout, 2014). These studies have shown that positive relationships with colleagues and school management are positively related to teachers' commitment and job satisfaction, but also to their well-being leading to less feelings of distress. These studies also indicate that these resources can form a kind of buffer against stress and distress in school and thus strengthen teacher resilience. A supportive school culture mainly relates to a shared school vision and mission as well as exchange of teaching approaches (Authors, 2016; Skaalvik & Skaalvik 2018). Such a supportive culture in school as well as shared views on teaching and learning appear to have positive relationships with teachers' self-confidence, their perceived opportunities for development, and their job satisfaction in general. The importance of a shared and safe learning and working environment where teachers and students show some consideration to each other, to explain differences in job satisfaction is also emphasized in a number of studies using TALIS 2013 or 2018 data, such as in the US (Wang et al., 2020), China (Liu et al., 2020), England (Jerrim & Sims, 2019), and Portugal (Lopes & Oliveira, 2020). These studies also find positive associations between self-efficacy as a personal resource and job satisfaction, although the authors do not distinguish between various types of self-efficacy.

The overview described above shows that different demands of the teaching profession and teachers' resources are distinguished in research into job satisfaction, well-being and commitment of teachers. Job satisfaction is an important reason that teachers work (longer) in education. This also makes it a good starting point for policy at school

and the national level, in particular, to keep teachers in the profession. This requires insight into the demands of the teaching profession, what resources teachers have to meet these demands and how both aspects explain differences between teachers' job satisfaction. The JD-R model is used to classify variables related to job satisfaction into teachers' job demands and resources. Therefore, the research question is formulated as follows:

"How are teachers' job demands and resources related to their job satisfaction?"

This main question will be answered separately for primary and secondary education, and for the Netherlands and Flanders.

3. Methods

3.1 Procedure

The procedure of the development and administration of the TALIS 2018 questionnaire in the Netherlands and Flanders is reported 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. For primary education (PE), a sample was drawn that led to 200 schools in both (Flanders and the Netherlands; for lower secondary education (SE), this led to 150 school in the Netherlands and 200 schools in Flanders. Within these schools, the questionnaire was distributed to 20 teachers or to all teachers if fewer than 20 teachers were employed in a school. The number of students, denomination and degree of urbanization was taken into account in the selection of schools. Selected schools were examined for a proportional distribution according to subject area, age and gender. Data from a school are included in the final data file if at least 50% of the teachers contacted has completed a questionnaire Response rates at school level vary from 67% of the primary school in the Netherlands to 91% of the secondary schools in Flanders. Various quality checks have been carried out that indicate that the final included data are representative. All documents relevant for information about TALIS 2018 (the questionnaires 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).

3.2 Participants

The questionnaire was completed by 4166 teachers from PE (1504 The Netherlands and 2662 Flanders) and 5006 teachers from the lower SE (1884 The Netherlands and 3122 Flanders). Table 1 shows the background data of the participants. For the purposes of the analyses, the highest level of formal education completed, employment and employment status are converted to a dummy variable with 0= bachelor or lower and 1= master or higher, 0= temporary and 1= permanent, and 0= part-time and 1= full-time, respectively.

In addition to the questions in which school subjects the participants teach, they were also asked whether these school subjects were part of their teacher training. A comparison between these two types of questions shows that almost 90% of teachers teach a school subject in which they were also trained (86% Flanders PE, 87% Flanders SE and 89% Netherlands SE).

Table 1: Background information participants TALIS 2018
Netherlands and Flanders (number with percentage between brackets)

	Netherlands		**Flanders**	
	PE **130 schools**	**SE** **116 schools**	**PE** **177 schools**	**SE** **182 schools**
Gender				
Female	1274 (84.7)	1012 (53.7)	2193 (82.4)	2172 (69.6)
Male	230 (15.3)	872 (46.3)	369 (17.6)	950 (30.4)
Highest level formal education completed				
Lower SE or lower	2 (0.1)	3 (0.2)	0 (0)	0 (0)
SE	60 (4.0)	40 (2.1)	9 (0.3)	205 (6.6)
Post SE	14 (0.9)	7 (0.4)	1 (0)	6 (0.2)
Associate degree	0 (0)	2 (0.1)	27 (1.0)	32 (1.0)
Bachelor	978 (65.2)	1038 (55.2)	2517 (94.8)	2577 (82.7)
Master	440 (29.8)	779 (41.4)	100 (3.8)	294 (9.4)
Doctorate	0 (0)	14 (0.7)	0 (0)	2 (0.1)
Employment				
Tenures	1375 (92.0)	1604 (85.6)	2179 (82.5)	2542 (82.3)
Fixed more than 1 year	33 (2.2)	78 (4.2)	127 (4.8)	132 (4.3)
Fixed 1 year or lesser	86 (5.8)	192 (10.2)	335 (12.7)	414 (13.4)
Employment status				
Full-time (90% or more)	502 (34.0)	735 (39.3)	1895 (73.8)	2156 (72.0)
Part-time (71-80%)	359 (24.3)	575 (30.8)	425 (16.6)	527 (17.6)
Part-time (50-70%)	465 (31.5)	491 (22.4)	220 (8.6)	277 (9.2)
Part-time (less than 50%)	150 (10.2	140 (7.5)	27 (1.1)	35 (1.2)
School subject				
Reading, writing, literature	n.a.	234 (12.6)	2191 (83.7)	663 (21.6)
Mathematics		254 (13.7)	2165 (82.7)	554 (18.1)
Science, Chemistry, Biology		279 (15.1)	1001 (38.2)	511 (16.7)
Social Studies, Geography, History		329 (17.8)	1203 (46.0)	685 (22.4)
Modern foreign languages		354 (19.1)	926 (35.4)	586 (19.1)
Ancient Greek and Latin		45 (2.4)	38 (1.5)	153 (5.0)
Technology		81 (4.4)	1336 (51.0)	521 (17.0)
Arts		186 (10.1)	1996 (76.2)	314 (10.3)
Physical Education		179 (9.7)	712 (27.2)	235 (7.7)
Religious studies		52 (2.8)	1322 (50.5)	285 (9.3)
Practical and vocational skills		174 (9.4)	853 (32.6)	386 (12.6)
Other		138 (7.5)	1870 (71.4)	156 (5.1)

3.3 Teachers' job demands and resources

Factors that can explain differences in teachers' job satisfaction are classified into the demands of the teaching profession and the resources that teachers have at their disposal

to deal with these demands and the possible consequences of those demands. This classification is based on the Job Demands-Resource (JD-R) model of Demorouti et al. (2001). The choice for which variables were included in the research as job demands or sources was based on the data available in TALIS 2018, where the items that concern teaching in a particular class (items 35 to 43) were not included. These items are too specific because teachers, especially in SE, teach in more than one class. The items on Teacher mobility (items 56 to 58) were also not included because they are not considered relevant for explaining differences in job satisfaction. Also, some items were not included that resulted in small groups (such as school subjects) or for which a more relevant alternative was available (such as number of years worked in the profession instead of in school). Below, the variables are described for the three main clusters of variables (job demands, resources and job satisfaction). If relevant factor analyses were performed with varimax rotation, items with a factor loading lower than 0.30 or with factor loadings higher than 0.30 on at least two factors were removed stepwise from the analyses. The factor analyses were first performed on the Dutch SE data file and then repeated on the other three data files. Subsequently, on the basis of reliability analyses, items were sometimes removed from a scale. The final scale compositions are the same for the four datasets. The reliability of the scales used in the analyses is shown in Table 5.

3.3.1 Job demands

The TALIS-2018 questionnaire contains a number of questions that relate to the demands of the teaching profession. Table 2 shows these variables and the descriptive statistics, with item numbers referring to the original TALIS-2018 questionnaire published on https://www.oecd.org/education/school/talis2018questionnaires.htm.

Teachers' job demands include the total number of hours teachers work and spend on teaching, tasks that may require additional time and energy (number of special education students in school and appointment as mentor), aspects of professional development and feelings of stress. After exploratory factor analyses, the items about Needs for professional development are classified into three types of needs: Needs for professional development in 1) basic tasks (4 items: school subject, pedagogy, curriculum and classroom management, 2) other teaching tasks (6 items: student assessment, ICT, personalized learning, extracurricular subjects) and 3) teaching in a multicultural setting (2 items: teaching in a multicultural setting, communication with people from different cultures). The professional development barriers items form one scale. Feelings of stress includes feelings of distress and various sources of stress. Distress is a collection of three of the four original items (stress at work, negative influence of work on mental health or on physical health). Items related to stress sources were classified into three types of stress after exploratory factor analysis: teaching (3 items: lesson preparation, teaching and marking), classroom management (2 items: classroom discipline, misbehavior) and activities outside class (5 items: administration, extra tasks due to the absence of a colleague, keeping up with new guidelines, contact with parents, adapting teaching to special education students).

Table 2: Job demands (within brackets the item number in the TALIS-2018 questionnaire)

	Netherlands		Flanders	
	PE	**SE**	**PE**	**SE**
Working hours per week				
In total (16)	35.49 (12.64)	36.00 (12.74)	41.02 (13.91)	37.06 (13.25)
Teaching (17)	19.39 (7.83)	17.25 (6.57)	22.82 (7.17)	18.35 (6.22)
Additional tasks				
Number special needs students in school[1] (14)	2.09 (0.52)	2.19 (0.56)	2.8 (0.38)	2.15 (0.45)
Appointed as mentor[2] (21b)	*258 (17.8)*	*371 (20.4)*	*166 (6.4)*	*245 (8.0)*
Professional development				
Needs basic tasks[3] (27a,b,c,f)	2.31 (0.64)	2.26 (0.64)	1.89 (0.62)	1.95 (0.64)
Needs other teaching tasks[3] (27d,e,h,k)	2.53 (0.61)	2.53 (0.66)	2.30 (0.65)	2.22 (0.65)
Needs multicultural setting[3] (27j,n)	1.81 (0.75)	1.80 (0.73)	1.93 (0.85)	1.82 (0.81)
Barriers[4] (28a,b,c,d,e,f,g)	2.01 (0.50)	2.01 (0.52)	1.97 (0.49)	1.98 (0.49)
Feelings of stress				
Distress[5] (51a,c,d)	1.89 (0.69)	1.84 (0.69)	2.32 (0.75)	2.30 (0.76)
Stress in teaching[5] (52a,b,c)	1.91 (0.68)	1.94 (0.76)	2.09 (0.67)	2.09 (0.69)
Stress in class management[5] (52g,h)	1.57 (0.64)	1.56 (0.65)	1.92 (0.77)	1.96 (0.82)
Stress activities outside class[5] (52d,e,i,j,k)	2.35 (0.63)	1.98 (0.61)	2.61 (0.66)	2.51 (0.64)

Note: Frequencies are printed italic and means and standard deviations (between brackets) are printed in regular font.

[1] 1 = none; 2 = some; 3 = most 4 = all;

[2] 0 = no; 1= yes;

[3] 1 = no need; 2 = low level of need 3 = moderate level of need; 4 = high level of need;

[4] 1 = strongly disagree; 2 = disagree; 3 = agree; 4 = strongly agree;

[5] 1 = not at all; 2 = to some extent; 3 = quite a bit; 4 = a lot.

3.3.2 Teacher resources

Resources available to teachers to deal with job demands include aspects of their level of preparedness in teacher education, induction programme, work experience, professional development (see Table 3), motivation for the profession, feelings of self-efficacy, feedback teachers receive, and perceived culture and climate in the school where the teacher works (see Table 4).

Teacher education, induction and work experience concern five variables. Teacher education is an average of the degree of experienced preparation for 10 aspects of teaching, including preparation for the school subject, (subject) pedagogy and classroom management. Induction refers to participation in a formal or informal induction programme, whether or not at the teacher's school in question, and whether the participants have been assigned a mentor. Finally, work experience is measured by the number of years that participants have been working as teachers.

Aspects of professional development have been measured with three variables. First, participants were asked whether they have participated in 10 types of professional development activities during the past year, such as courses (face-to-face or online), school visits, a formal training programme or reading professional literature. A second variable (professional development facilitation) concerns eight types of facilitation of

attending professional development activities, such as released from teaching duties, non-monetary support, rewards or benefits, or extra materials to work with. These items were not surveyed in Flanders. A third variable concerns the influence that the professional development has had on teaching.

Table 3: Teacher resources part 1
(between bracket item numbers from the TALIS 2018 questionnaire)

	Netherlands		**Flanders**	
	PE	SE	PE	SE
Teacher education, induction and work experience				
Preparedness teacher education[1] (6a t/m j)	2.32 (0.45)	2.42 (0.51)	2.38 (0.47)	2.47 (0.50)
Formal induction programme[2] (19a)	*441 (31.1)*	*1090 (61.1)*	*604 (23.4)*	*1467 (49.3)*
Informal induction programme[2] (19b)	*625 (43.8)*	*1099 (61.7)*	*617 (24.3)*	*1424 (49.1)*
Being a mentee (21a)[3]	*144 (10.0)*	*251 (13.8)*	*143 (5.5)*	*294 (9.7)*
Years teaching experience (11b)	16.26 (10.66)	15.70 (10.59)	16.76 (11.16)	15.68 (10.41)
Professional development (22a t/m j)				
Courses[3]	*1317 (90.6)*	*1601 (88.1)*	2392 (91.9)	*2747 (90.3)*
Online courses[3]	*399 (27.5)*	*257 (13.6)*	190 (7.3)	*442 (14.6)*
Conferences[3]	*498 (34.3)*	*814 (44.8)*	1374 (52.9)	*1122 (37.0)*
Formal education[3]	*218 (15.0)*	*329 (18.1)*	392 (15.1)	*400 (13.1)*
School visits[3]	*514 (35.4)*	*567 (31.2)*	573 (22.0)	*551 (18.1)*
Other visits[3]	*106 (7.3)*	*324 (17.9)*	202 (7.8)	*345 (11.3)*
Peer coaching[3]	*737 (50.8)*	*922 (50.8)*	903 (34.8)	*1026 (33.7)*
Participation teacher network[3]	*629 (43.3)*	*655 (36.0)*	718 (27.7)	*971 (31.9)*
Professional literature[3]	*1330 (91.5)*	*1582 (87.2)*	2060 (79.2)	*2479 (81.3)*
Other[3]	*385 (28.1)*	*567 (32.5)*	541 (22.2)	*847 (29.2)*
Influence on teaching[3] (25)	*1252 (87.4)*	*1451 (82.2)*	*2128 (84.0)*	*2263 (76.7)*
Facilitation professional development (24a t/m h)				
Released from teaching[3]	*440 (30.7)*	*956 (54.2)*	n.a.	n.a.
Non-monetary support[3]	*332 (23.2)*	*592 (33.6)*		
Reimbursement[3]	*653 (45.6)*	*1017 (57.6)*		
Materials needed for activities[3]	*658 (45.9)*	*715 (40.6)*		
Monetary supplements[3]	*36 (2.5)*	*91 (5.2)*		
Non-monetary rewards[3]	*135 (9.4)*	*172 (9.8)*		
Non-monetary professional benefits[3]	*102 (7.1)*	*111 (6.3)*		
Increased salary[3]	*59 (4.1)*	*55 (3.1)*		

Note: Frequencies and percentages (between brackets) are printed in italics; Mean scores and standard deviations (between brackets) are printed in regular font.
[1]1 = not at all; 2 = somewhat; 3 = well; 4 = very well; for PE 6a t/m l;
[2]0 = no; 1 = during my first employment and/or at this school;
[3]0 = no; 1 = yes.

Motivation and self-efficacy refer to a number of variables related to the teacher's perceived qualities. Three aspects of motivation for the teaching profession were surveyed: social value (contributing to development of youth, helping vulnerable students, providing contribution to society), personal value (stable career, steady income, permanent job), and social recognition (recognition of teaching, recognition by policy makers and media, perceived influence on policy, salary). In addition, teachers were

asked whether teaching was their first choice of profession. Subsequently, four aspects of self-efficacy were addressed: classroom management (dealing with discipline problems, following class rules), instruction (asking students questions, using variety of instruction and assessment strategies), student engagement (motivating students, making them think critically) and dealing with diversity (dealing with challenges in a multicultural classroom, adapting education to cultural diversity, collaborating with students from different cultural backgrounds, raising awareness of students' cultural differences, combating stereotyping). Due to the large number of missing values for the latter form of self-efficacy, this variable was not included in the analyses.

Table 4: Teacher resources part 2
(between bracket item numbers from the TALIS 2018 questionnaire)

	Netherlands		Flanders	
	PE	**SE**	**PE**	**SE**
Motivation				
Social valuet[4] (7e,f,g)	3.10 (0.64)	2.89 (0.73)	3.56 (0.49)	3.43 (0.58)
Personal value[4] (7a,b,c,)	2.02 (0.84)	2.28 (0.88)	2.86 (0.83)	2.87 (0.83)
Social recognition[5] (53h, 54a t/m e)	2.10 (0.45)	2.25 (0.45)	2.37 (0.43)	2.28 (0.46)
Teaching first choice[3] (8)	*1005 (67.3)*	*1007 (53.8)*	*2112 (79.9)*	*2287 (74.1)*
Self-efficacy				
Self-efficacy class managamen[6] (34d,f,h,i)	3.60 (0.44)	3.45 (0.49)	3.52 (0.48)	3.49 (0.50)
Self-efficacy instruction[6] (34c,j,k,l)	3.35 (0.45)	3.29 (0.45)	3.36 (0.46)	3.34 (0.47)
Self-efficacy student engagament[6] (34a,b,e,g)	3.40 (0.42)	3.18 (0.47)	3.36 (0.47)	3.20 (0.52)
Feedback (29a t/m f)				
Observation classroom teaching[3]	*1368 (95.5)*	*1675 (94.6)*	*2315 (90.3)*	*2577 (86.5)*
Student survey responses[3]	*490 (35.0)*	*1363 (78.4)*	*874 (35.3)*	*1179 (41.7)*
Assessment content knowledge[3]	*364 (26.5)*	*462 (27.1)*	*1303 (51.9)*	*1530 (52.8)*
External results students[3]	*1101 (78.8)*	*991 (58.3)*	*1640 (65.7)*	*1128 (40.0)*
School-based results[3]	*1205 (85.0)*	*1342 (77.7)*	*1876 (74.8)*	*1673 (58.2)*
Self-assessment[3]	*470 (33.5)*	*615 (36.0)*	*648 (26.5)*	*718 (25.6)*
Influence on teaching[3] (30)	*1164 (82.8)*	*1185 (67.8)*	*1721 (70.5)*	*1622 (58.3)*
School culture and school climate				
New ways of teaching[5] (32a,b,c,d)	3.00 (0.51)	2.69 (0.50)	2.98 (0.56)	2.76 (0.54)
Teacher collaboration[7] (33a t/m h)	3.44 (0.70)	3.30 (0.73)	3.46 (0.83)	3.04 (0.78)
Participate in decision making[5] (48a,b,c)	2.99 (0.43)	2.85 (0.49)	2.96 (0.47)	2.89 (0.51)
Collaborative school culture[5] (48d,e,f,g,h	3.07 (0.43)	2.74 (0.49)	2.96 (0.45)	2.79 (0.49)
Safe learning and working climate[5] (49a t/m e)	3.49 (0.41)	3.30 (0.40)	3.43 (0.42)	3.29 (0.40)

Note: Frequencies and percentages (between brackets) are printed in italics; Mean scores and standard deviations (between brackets) are printed in regular font.

[3]0 = no; 1 = yes;

[4]1 = not important at all; 2 = of low importance; 3 = of moderate importance; 4 = of high importance;

[5]1 = strongly disagree; 2 = disagree; 3 = agree; 4 = strongly agree;

[6]1 = not at all; 2 = to some extent; 3 = quite a bit; 4 = a lot;

[7]1 = never; 2 = one a year or less; 3 = 2-4 times a year; 4 = 5-10 times a year; 5 = 1-3 times a month; 6 = once a week or more.

Teachers can get feedback about their teaching in several ways. Two variables related to feedback were distinguished. First, six forms of feedback were addressed: observation of teaching, student evaluations of education, assessment of school subject knowledge, test results of students, test results of school and self-assessment. Secondly, one item included whether feedback had influence on teaching.

Finally, aspects of school culture and school climate were addressed, distinguishing six scales. Firstly, the students were asked about new ways of teaching in school (4 items). Secondly, teachers were asked about collaboration between teachers in school, such as team teaching, observing and providing each other with feedback, collaboration in projects, exchanging materials, discussions about students, collaboration on student evaluations, and team meetings. Thirdly, aspects of the school climate were asked, with a focus on participation in decision making (participation of staff, parents and students), collaborative school culture (shared responsibility, mutual support, shared views, shared rules for students, incentive for new ideas) and a safe learning and working climate (good relationship between teachers and students, attention to students' well-being, teachers who show an interest in what students say, student support and mutual trust among teachers). Finally, four items are included about how the school supports activities on diversity and multiculturalism. Due to the large number of missing values on these last four items, they were excluded from the analyses.

3.3.3 Job satisfaction

Job satisfaction was measured on the basis of nine statements and sorted into two clusters after exploratory factor analysis. The first cluster of items concerns satisfaction with the teaching profession (4 items: advantages clearly outweigh disadvantages; if I could choose, I would do it again; I regret becoming a teacher (rescored); I think it would have been better if I had chosen a different profession (rescored)). The second cluster of items concerns satisfaction with the school where one currently works (3 items: I would change school if I could (rescored), I enjoy working at this school; I can recommend this school as a workplace). These two aspects of satisfaction are confirmed by Zakariya (2020) based on TALIS-2018 data from 27 countries. As can be seen from Table 5, apart from teachers in SE in the Netherlands, teachers are more satisfied with school than with the profession itself.

Table 5: Job satisfaction (between brackets the items from TALIS 2018 questionnaire) and mean scores and standard deviations (between brackets)

	Netherlands		Flanders	
	PE	**SE**	**PE**	**SE**
Satisfaction				
With teaching profession[1] (53a,b,d,f)	3.05 (0.60)	3.16 (0.59)	3.13 (0.61)	3.11 (0.60)
With school[1] (53c,e,g)	3.29 (0.54)	3.17 (0.58)	3.37 (0.60)	3.27 (0.64)

[1]1 = strongly disagree; 2 = disagree; 3 = agree; 4 = strongly agree.

3.4 Analyses

Table 6 shows the reliability of each scale. Satisfaction with the teaching profession is the dependent variable in the analyses because this aspect of job satisfaction appears to be most relevant for teacher retention. As Federičová (2021) has indicated, about half of the teachers who have stopped working at school have indicated that they have quitted the profession. Zakariya et al. (2020) confirm the scale of satisfaction with the teaching profession on the basis of analyses of TALIS 2018 data from 38 countries. Satisfaction with the school is included as predictor in the final analyses.

Table 6: Reliability of the scales in terms of Cronbach's α

	Netherlands		Flanders	
	PE	**SE**	**PE**	**SE**
Job demands				
Professional development				
Needs basic teaching tasks (27a,b,c,f)	0.77	0.75	0.76	0.77
Needs other teaching tasks (27d,e,h,k)	0.63	0.70	0.64	0.67
Needs teaching multicultural setting (27j,n)	0.79	0.80	0.79	0.80
PD barriers (28a,b,c,d,e,f,g)	0.77	0.77	0.75	0.72
Feelings of stress				
Distress (51a,c,d)	0.83	0.82	0.82	0.82
Stress in teaching (52a,b,c)	0.71	0.72	0.64	0.69
Stress in class management (52g,h)	0.58	0.64	0.66	0.74
Stress activities outside class (52d,e,i,j,k)	0.71	0.72	0.74	0.73
Resources				
Teacher education, induction and work experience				
Preparedness in teacher education (6a to j)[1]	0.83	0.84	0.84	0.83
Motivation				
Social value[7] (7e,f,g)	0.70	0.76	0.70	0.76
Personal value (7a,b,c,)	0.91	0.92	0.90	0.89
Social recognition (53h, 54a to e)	0.71	0.93	0.71	0.74
Self-efficacy				
Self-efficacy class management (34d,f,h,i)	0.81	0.83	0.84	0.86
Self-efficacy instruction (34c,j,k,l)	0.72	0.67	0.71	0.69
Self-efficacy student engagement (34a,b,e,g)	0.69	0.72	0.75	0.79
School culture and school climate				
New way of teaching (32a,b,c,d)	0.84	0.83	0.88	0.86
Teacher collaboration (33a to h)	0.73	0.72	0.73	0.74
Participation in decision-making (48a,b,c)	0.69	0.81	0.73	0.78
Collaborative school culture (48d,e,f,g,h	0.80	0.81	0.80	0.81
Safe learning and working culture (49a to e)	0.82	0.80	0.84	0.82
Job satisfaction				
Satisfaction				
With teaching profession (53a,b,d,f)	0.82	0.82	0.79	0..80
With school (53c,e,g)	0.77	0.77	0.84	0.85

[1]For PE 6a to l.

To answer the research question, linear regression analyses are performed per sector and per country, using satisfaction with the teaching profession as a dependent variable and the background characteristics of the participants (model 1), job demands (model 2) and resources (model 3) as independent variables. In the analyses related to resources (model 3), separate regression analyses have been performed first on the professional development activities (22a to j), professional development facilitation (24 a to h) and Feedback (29a to f) to select potentially interesting variables for the follow-up analyses. Subsequently, the background characteristics, job demands and resources that show a significant relationship with satisfaction with the teaching profession in models 1, 2 and 3, respectively, were included in the final model. Only the final model per education sector and country is included in the results section.

Because the data has a nested structure (teachers within schools), variance in scores on satisfaction with teaching profession at the school and teacher level was checked. For all four datasets, little variance is explained by the schools where the teachers work (varying from less than 1% for the Netherlands SE to 3% for the Netherlands PE) and the variance at school level did not significantly deviate from 0. So, the regression analyses have been performed at the teacher level only.

4. Results

4.1 Primary and secondary education teachers in the Netherlands

Table 7: Results teachers PE and SE in the Netherlands

	PE				SE			
	b*	**t**	**p**	**partial r**	**b***	**t**	**p**	**partial r**
Background								
Gender (1=female)	0.045	1.962	0.05	0.053	n.i.			
Job demands								
Working hours in school	0.087	3.806	<0.001	0.102	n.i.			
Barriers PD	-0.065	-2.692	0.007	-0.072	-0.093	-4.057	<0.001	-0.101
Distress	-0.315	-11.708	<0.001	-0.300	-0.304	-11.538	<0.001	-0.271
Stress in teaching	-0.078	-3.021	0.003	-0.081	-0.071	-2.873	0.004	-0.070
Stress in class management	-0.075	-2.942	0.003	-0.079	-0.078	-3.215	0.001	-0.078
Stress activities outside class	0.015	0.547	0.584	0.015	0.069	2.743	0.006	0.067
Resources								
Being prepared in teacher education	0.096	4.200	<0.001	0.112	0.038	1.798	0.072	0.044
PD-Professional literature (1=yes)	n.i.				0.058	2.871	0.004	0.070
Social value	0.105	4.648	<0.001	0.124	0.149	7.028	<0.001	0.169
Personal value	-0.081	-3.588	<0.001	-0.096	-0.025	-1.216	0.224	-0.030
Social recognition	0.168	6.998	<0.001	0.184	0.149	6.542	<0.001	0.158
Teaching first choice (1=yes)	0.085	3.815	<0.001	0.102	0.010	4.883	<0.001	0.118
Self-efficacy class management	0.001	0.052	0.959	0001	-0.009	-0.346	0.729	-0.001
Self-efficacy student engagement	n.i.				0.031	1.261	0.208	0.031
Collaborative culture in school	0.012	0.479	0.632	0.013	-0.004	-0.151	0.880	-0.004
Safe learning and working climate	0.135	5.204	<0.001	0.138	0.139	6.119	<0.001	0.148
	F(15,1390)=47.134; p<0.001; R^2= 0.330				F(15,1681)=52.747; p<0.001; R^2= 0.314			

b* = standardized regression coefficient; t = t-value; p = significance; partial r = partial correlation; n.i. = not included in the final analyses.

Table 7 shows the results of the final regression analyses for primary and secondary school teachers in the Netherlands. For both sectors, more than 30% of the variance in job satisfaction scores is explained by teachers' job demands and resources (33% for PE and 31% for SE).

The results of the final regression analyses are similar for primary and secondary teachers. For both groups, distress (PE: B=-0.276, se=0.024; SE: B=-0.262, se=0.023), stressful situations in teaching (PE: B=-0.069, se= 0.023; SE: B =-0.056, se=0.019) and in classroom management (PE: B=-0.070, se=0.024; SE: B=-0.071, se=0.022) and perceived barriers to professional development (PE: B=0.079, se=0.029; SE: B=-0.106, se=0.026) are negatively related to their satisfaction with the teaching profession. In addition, for both groups of teachers, the perceived social value of the teaching profession (PE: B=0.099; se=0.021; SE: B=0.122, se=0.017), social recognition of the teaching profession (PE: B=0.225, se=0.032; SE: B=0.196, se=0.030) and teaching as the first career choice (PE: B=0.109, se=0.029; SE: B=0.118, se=0.024) were positively associated with satisfaction with the teaching profession. Finally, a safe learning and working climate in school (PE: B=0.200, s.e.=0.038; SE: B=0.205, s.e.=0.033) is positively related to satisfaction with the teaching profession. Remarkably for both groups of teachers, self-efficacy in class management and collaborative school culture no longer forms a significant relationship with job satisfaction after inclusion of job demands in the final model. This also applies to the negative relationship of personal value and the positive relationship of self-efficacy in student engagement for secondary education teachers.

Differences between teachers in PE and SE concern the variables stressful situations outside class, reading professional literature, gender, number of hours worked in school, personal value and degree of being prepared for the profession, of which the last four show a significant association with job satisfaction among teachers PE. In PE, women are more satisfied with the teaching profession than men (B=0.074, se=0.038), the number of hours teachers work in school is positively related to job satisfaction (B=0.004, se=0.001) and perceived personal value of the teaching profession (such as a permanent job and income) negatively relates to job satisfaction (B=-0.058; se=0.016). For PE teachers, the extent to which teachers are prepared for their profession is positively related to satisfaction with the teaching profession (B=0.128, s.e.=0.030). For the latter result, we see a trend among SE teachers (B=0.044, s.e.=0.025). Finally, SE teachers who read professional literature as a professional development activity are more satisfied with the teaching profession than teachers who do not (B=0.104, se=0.036), and, remarkably, SE teachers' sense of stressful situations outside class has a positive relationship with job satisfaction (B=0.068, se=0.025).

For both educational sectors, adding satisfaction with school as a predictor increases the total proportion of variance explained in job satisfaction scores, to 0.362 (PE) and 0.354 (SE), respectively. For both sectors, satisfaction with school shows a significant and strong positive relationship with job satisfaction (PE: B= 0.227; s.e.= 0.031; $r_{partial}$= 0.193; SE: B= 0.250; s.e.= 0.027; $r_{partial}$= 0.224). For both sectors, this addition also means that perceived barriers to professional development have no significant relationship with job

satisfaction (PE) or shows a clearly less strong relationship (SE) in the final model. Also, a safe learning and working climate has a significantly less strong relationship with job satisfaction ($r_{partial}$ PE= 0.091 and $r_{partial}$ SE= 0.087) in the model with school satisfaction added.

In sum, feelings of distress (as part of job demands), social value, social recognition, and a safe learning and working climate (as part of teachers' resources) and satisfaction with school are important elements of satisfaction with the teaching profession of primary and secondary school teachers. For primary school teachers, this also applies to the extent to which they feel prepared for their professional practice.

4.2 Primary and secondary education teachers in Flanders

Table 8 shows the results of the final regression analyses for teachers from PE and SE in Flanders. Teachers' job demands and resources explain about 35% of the variance in job satisfaction scores (36% for PE and 34% for SE).

Table 8: Results teachers PE and SE in Flanders

	PE				SE			
	b*	**t**	**p**	**partial r**	**b***	**t**	**p**	**partial r**
Background								
Employment (1=tenured)	0.008	0.404	0.686	0.008	-0.028	-1.705	0.088	-0.032
Employment status (1=full-time)	0.011	0.625	0.532	0.013	n.i.			
Job demands								
Working hours in school	n.i.				0.066	4.044	<0.001	0.076
Working hours teaching	0.073	3.990	<0.001	0.083	n.i.			
Barriers PD	-0.052	-2.894	0.004	-0.060	-0.027	-1.656	0.098	-0.031
Distress	-0.333	-15.449	<0.001	-0.307	-0.354	-17.820	<0.001	-0.319
Stress in teaching	-0.074	-3.641	<0.001	-0.076	-0.059	-3.161	0.002	-0.060
Stress in class management	-0.031	-1.596	0.111	-0.033	-0.076	-4.385	<0.001	-0.082
Stress activities outside class	-0.058	-2.528	0.012	-0.053	-0.015	-0.767	0.443	-0.014
Resources								
Being prepared in teacher education	0.034	1.919	0.055	0.040	n.i.			
Informal induction programme (1=yes)	0.035	2.036	0.042	0.042	n.i.			
Teaching experience in years	-0.028	-1.376	0.169	-0.029	n.i.			
PD-Influence on teaching (1=yes)	0.069	4.050	<0.001	0.084	0.058	3.647	<0.001	0.069
Social value	0.108	6.331	<0.001	0.131	0.131	8.365	<0.001	0.156
Personal value	-0.058	-3.367	0.001	-0.070	-0.020	-1.292	0.197	-0.024
Social recognition	0.151	8.098	<0.001	0.167	0.157	8.873	<0.001	0.165
Teaching first choice (1=yes)	0.080	4.695	<0.001	0.097	0.090	5.780	<0.001	0.108
Self-efficacy class management	0.043	2.408	0.016	0.050	n.i.			
Collaborative culture	n.i.				0.021	1.142	0.253	0.022
Safe learning and working climate	0.074	4.283	<0.001	0.089	0.092	5.383	<0.001	0.101
	F(18,2299)=71.761; p<0.001; R^2= 0.355				F(14,2812)=104.937; p<0.001; R^2= 0.340			

b* = standardized regression coefficient; t = t-value; p = significance; partial r = partial correlation; n.i. = not included in the final analyses.

As with the data for the Netherlands, there is a lot of overlap in the results for teachers in PE and SE. In the case of teachers in Flanders, this mainly concerns aspects of feelings of stress (job demands) and motivation for the teaching profession (resources). With regard to job demands, feelings of distress appear to be negatively related to satisfaction with the teaching profession (PE: B=-0.270, s.e.=0.017; SE: B=-0.283, s.e.=0.016). This also applies to stressful situations in teaching (PE: B=-0.068, s.e.=0.019; SE: B=-0.052, s.e.= 0.016). With regard to teachers' resources, it appears that the social value of the profession (PE: B=0.136, se=0.021; SE: B=0.137, se=0.016), social recognition of the teaching profession (PE: B= 0.217, se=0.027; SE: B=0.205, se=0.023) and teaching as the first career choice (PE: B=0.123, se=0.026; SE: B=0.123, se=0.021), are all positively related to job satisfaction of both primary and secondary school teachers. In addition, the perceived influence of professional development on teaching practice (PE: B=0.114, se=0.028; SE: B=0.082, se=0.023) and a safe learning and working climate in school (PE: B=0.106, se =0.025; SE: B=0.138, se=0.026) are also positively related to satisfaction with the teaching profession. Remarkably, self-efficacy in class management (for both PE and SE) and collaborative culture in school (for SE only), just as in the Dutch data, no longer show a significant relationship with job satisfaction after inclusion of job demands in the final model. This also applies to the negative relationships of personal value (SE) and stress in class management (PE) after inclusion of either job demands or resources in the final model.

In addition, primary and secondary school teachers in Flanders also differ. Remarkably, the number of hours that primary school teachers spend on education (B=0.006, se=0.002) and the number of hours that secondary education teachers work in school (B=0.003, se=0.001), are positively related to teachers' job satisfaction. With regard to job demands, the data on primary school teachers show a negative association between barriers to professional development and job satisfaction (B=-0.062, se=0.022), which is only a trend for secondary teachers (B=-0.033, se=0.020). In addition to the negative associations with distress and stress in teaching, primary teachers also show a negative relationship of stress from activities outside class with job satisfaction (B=-0.054, se=0.021) and secondary teachers of stress in classroom management (B=- 0.056, sec=0.013). With regard to primary school teachers' resources, attending an informal induction programme (B=0.049; se=0.024) and self-efficacy in class management (B=0.055, se=0.023) have a positive relationship with job satisfaction, while personal value of the teaching profession shows a significant negative relationship with job satisfaction (B=-0.043, se=0.013).

For both sectors, adding satisfaction with school as a predictor increases the total proportion of variance explained in job satisfaction scores, to 0.391 (PE) and 0.394 (SE), respectively. For both sectors, satisfaction with school shows a significant and strong relationship with job satisfaction (PE: B=0.216; s.e.=0.020; $r_{partial}$=0.220; SE: B=0.268; s.e.=0.017; $r_{partial}$=0.278). Also, for both sectors, this addition means that perceived barriers to professional development no longer show a significant relationship with job satisfaction and that a safe learning and working climate does not show a significant

relationship (PE) or a clearly less strong relationship with job satisfaction ($r_{partial}$ SE = 0.042). The addition of satisfaction with school therefore has similar consequences for the results from the Flemish data as for the Dutch data.

As with teachers in the Netherlands, feelings of distress (as part of job demands), social value and social recognition of the teaching profession (as part of teachers' resources) and satisfaction with school are important elements of satisfaction with the teaching profession. of primary and secondary school teachers. A safe learning and working climate is also an important resource, but less strongly present than among teachers in the Netherlands.

5. Discussion and conclusion

The re-analysis of the data from TALIS 2018 of primary and secondary school teachers from the Netherlands and Flanders show that differences in teachers' satisfaction with the teaching profession are almost entirely caused by individual differences between teachers; the school where teachers work hardly explains these differences. Liu et al. (2020, in TALIS 2018 data China), Wang et al. (2020 in TALIS 2013 data USA) and Lopes & Olivera (2020, in TALIS 2013 data Portugal) found significant differences between schools, but did not distinguish between the two types of satisfaction (with the profession and with the school). In the present study, however, the satisfaction experienced by the teachers with the school where they work is an important explanation for differences in satisfaction with the teaching profession. The Job Demands-Resources model of Demerouti et al. (2001) was used to map out differences between teachers in their perceived job satisfaction. The main findings in terms of job demands and resources are summarized and discussed below.

5.1 Teachers' job demands and their job satisfaction

Feelings of distress and stressful situations in teaching and in class management emerge as important explanations for differences in teachers' job satisfaction, both in primary and secondary education and in both the Netherlands and Flanders. This is in line with the many studies already mentioned in the introduction of this article on a negative association between teachers' feelings of burnout, student misbehavior and low student motivation, on the one hand, and teachers' job satisfaction, on the other. Remarkably, studies specifically on TALIS data generally focus on teachers' resources of teachers as an explanation for their job satisfaction and hardly or not at all on their job demands. Toropova et al. (2021) do examine school conditions in their analyzes of TIMSS 2015 data from Sweden and conclude that student misbehavior (in the current study stress in class management) and work pressure (in the current study stress in teaching) of teachers are negatively related to job satisfaction.

Another variable that shows a negative relationship with teachers' job satisfaction in the four data sets is the perceived barriers to professional development. This ties in with other studies into the importance of professional development and the choices

teachers have in it for teachers' job satisfaction (see e.g. Authors, 2016; Meirink & Van der Want, 2018). Which professional development teachers think they need does not seem to matter for their job satisfaction: none of the items showed a significant relationship with job satisfaction. Incidentally, the negative relationship of perceived barriers to professional development with job satisfaction disappears when school satisfaction is added to the model. Evidently, professional development opportunities for teachers are an important aspect of satisfaction with the school where they work.

5.2 Teachers' resources and their job satisfaction

Aspects of motivation for the profession are an important explanation for differences in teachers' job satisfaction in all four databases. In particular, the social recognition of the profession, the social value and teaching as a first career choice are strongly related to their job satisfaction. This importance of teacher motivation for their job satisfaction is also found in the other TALIS data (see e.g. Liu et al., 2020 for TALIS-2018 China), but also in other studies on teacher job satisfaction (Skaalvik & Skaalvik, 2018; Van Droogenbroeck & Spruyt, 2016).

A safe learning and working climate for teachers, in which teachers and students show mutual respect, also shows a strong relationship with teachers' job satisfaction, while other aspects of school culture and climate are of little or no importance. The importance of a safe learning and working environment is also found in other analyses of TALIS data, although authors have only selected a few items and (thus) indicated other labels such as mutual respect (Wang et al, 2020, TALIS 2013) or positive teacher-student relations (Liu et al., 2020 TALIS 2018; Lopes & Oliveira, 2020, TALIS 2013). These other TALIS analyses also found (weak, but significant) associations between teachers' job satisfaction and participation in decision making, teacher collaboration and collaborative culture in school. The latter resource also shows a positive relationship with job satisfaction in the present study, but disappears from the final model when the job demands are added. This fact emphasizes the importance of including both job demands and resources in one model. As mentioned earlier, these researchers use one measure for job satisfaction that includes both satisfaction with the profession and satisfaction with the school where a teacher works.

Professional development also plays a role as a resource in explaining differences in job satisfaction. The perceived influence of professional development on teaching practice is strongly related, while the professional development activities teachers have undertaken do not show a significant association with job satisfaction in any of the datasets. An exception is the reading of professional literature, which shows a trend in a positive relationship with job satisfaction among secondary education teachers in the Netherlands. Furthermore, the perceived degree of preparation in teacher education shows a significant and positive association with job satisfaction in three of the four datasets.

Remarkably in the current research, teachers' self-efficacy in the final models is not related to the job satisfaction of teachers, while in other TALIS analyses as well as

other research a relationship is found between self-efficacy and teachers' job satisfaction. Toropova et al. (2021) also found a strong correlation between self-efficacy in instructional behavior and teacher job satisfaction. An explanation for this may be that the present study includes both resources (including self-efficacy) and job demands. Self-efficacy was significantly related to job satisfaction in the models with resources only, but no longer after inclusion of job demands in the final model. In their analyses of the TALIS 2018 data Croatia, Burić and Kim (2021) also report low correlations between the three forms of self-efficacy, on the one hand, and job and school satisfaction, on the other.

5.3 Limitations and suggestions for future research

A first limitation is a possible bias caused by the fact that teachers who have already left the teaching profession were not included in the sample. This is inherent of distributing the questionnaire via schools. The results concern the perceptions of teachers who were (still or again) teachers at the time of the survey. A questionnaire that is administered more broadly, such as the SHARE in Federičová (2021), can solve this problem.

A second limitation relates to the JD-R model that is used in the present study to examine information that can explain teachers' job satisfaction. Yet, the information from TALIS 2018 has not been collected from the perspective of this JD-R model and therefore information has been retrospectively classified into either job demands or resources. A data collection focused more on the JD-R model would clarify whether the demands of teaching and the resources a teacher has to deal with those demands are actually experienced as such. In addition, the critical comments that Schaufeli and Taris (2013) have placed on the model should be taken to heart. One of the suggestions has already been followed in this study, i.e. to include not only work environment support, but also personal assets as resources. Another suggestion is to explore personal resources as a mediator or moderator of the relationship between job demands and the support provided by the (work) environment, on the one hand, and job satisfaction, on the other. A third suggestion of these authors is that the distinction between job demands and resources should not only consist of negative perceived demands and positively experienced resources, but also include job demands that can be experienced as positive or challenging (e.g., teacher responsibilities and relationship between different tasks of the teaching profession). Finally, the authors indicate that job demands and resources can mutually influence each other. For example, stress in teaching can lower motivation for teaching, and teachers' low intrinsic motivation for teaching can evoke feelings of stress.

5.4 Implications

The results regarding the negative relationship of feelings of distress and stress with teachers' job satisfaction imply that working on optimal conditions in school and the profession as a teacher probably pays off. This is underlined by the positive relationship between satisfaction with the school where teachers work and their job satisfaction. To keep teachers in the profession, the experiences of distress and stress should be reduced, e.g. by lowering the workload, providing more support in performing the teacher's tasks,

giving more autonomy in following professional development activities and more appeal on the social value motivation of teachers to contribute to the development of students. A fixed income or a permanent job is still high on the wish list of educational policy advisors, but this research shows that this form of 'personal' value, in contrast to social value, is hardly related to teachers' job satisfaction.

Another aspect that is high on the agenda of education policy advisors is the development of hybrid careers: teachers would see teaching too much as a trap you cannot escape of and should have more career options than the teaching profession. However, the strong relationship between social recognition of the teaching profession, social value of teachers to contribute to the development of students and teaching as the first career choice with their job satisfaction suggests that the possibility of a hybrid career may attract more aspiring teachers to the profession, but that the question remains whether these teachers will be retained for the teaching profession in the long run. In particular, the result that teachers who had the teaching profession as their first choice have a higher job satisfaction (and thus a greater chance of continuing to practice teaching) may be important for addressing new target groups for teacher education and the teaching profession.

Conflict of Interest Statement

The author declares no conflicts of interests.

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