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A Comparison of Stress and Burnout between Dutch General and Special Education Teachers

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A Comparison of Stress and Burnout between Dutch General and Special Education Teachers

Abstract

In this study self-reported stress and burn-out levels between general and special education teachers in the Netherlands are compared. More than eight hundred teachers were assessed with the Utrechtse Burnout Schaal (UBOS-L/MBI) to determine their levels of emotional exhaustion, depersonalization, and personal accomplishment within the school context. We also used instruments to measure different stress indicators (personal characteristics: self-efficacy, negative affect, and student characteristics: student responsibility and discipline, student-peer relationships, and class size). Contrary to recent findings in the United States (Shoho, 2002), results regarding burnout did not show any significant differences between general education teachers (n=604) and special education teachers (n=206). However, we do find significant differences in stress indicators explaining burnout. We also looked for factors other than those intrinsic to teaching, by cross-nationally comparing teacher stress and burnout. Teachers in the U.S. and the Netherlands differ significantly in burnout level. U.S. teachers experience more burnout.

Keywords:

burnout, general and special education, student behavior, class size, negative affect, self-efficacy.

A Comparison of Stress and Burnout between Dutch General and Special Education Teachers

Theoretical Approach

Researchers and policymakers report that high numbers of teachers leave education every year. In one American report, it was found early career teachers are prone (20%) to leave the profession within the first 3 years of their career (Olson, 2000). In Germany fewer than 10% of the teachers work until normal retirement age. In Britain, there are more teachers leaving the profession early than remaining until retirement. Even more troubling, there is some evidence that the academically talented leave teaching early. Research has found that many teachers leave the profession because they become stressed and burnout. Researchers and policymakers have recognised the growing urgency of teacher stress and burnout by calling it one of the most critical problems facing education today (Byrne, 1999). Burnout and its accompanying characteristics have been recognized as correlates to high attrition rates (Edmondson & Thompson, 2002). However, teachers are not a homogeneous group; the job presents different challenges, demands, and rewards depending on whether the school is public or private, urban or rural, or *general or special*. According to Ingersoll (2001) special educators are more likely to leave the classroom than any other teacher group. Shortages of special education teachers are twice as large as in general education. The attrition rate of leaving the job among special education teachers appears to be higher than among general education teachers (Shoho, 2002).

In research comparing stress and burnout in general and special education teachers, findings are mixed. Reasons found for higher stress and burnout rates in *special education* are high pupil contact hours, large amounts of paper work, difficulty meeting students needs, stressful interpersonal interactions, loss of teacher control, few professional interactions and growth, and lack of recognition (Billingsley, 1993). Special education teachers are significantly more likely than regular teachers to feel burdened by 'red tape'.

Pierce and Molly's (1990) research in regular secondary education showed that psychological variables are more significant predictors of burnout than biographical variables. Also, student behavior stressors are one of the main sources of psychological distress among teachers (Borg, 1990). The movement toward inclusive education signals a philosophical change for *general education* teachers. With the influx of exceptional students into regular classrooms, teachers in regular schools often incur new and additional duties for which they have either limited or no formal training. Due to the student's problematic behavior and lower abilities, the teachers also experience minimal and infrequent pupil progress. Continual exposure to challenging behavior, both from pupils and their parents, can seriously deplete the teacher's emotional and physical resources, leading to self-doubt, loss of satisfaction from teaching, impulsivity, rigidity or feelings of anger and guilt. In an attempt to provide the required services, work overload and hence stress and burnout is almost inevitable. Shoho (2002) finds higher levels of burnout in general education teachers, compared with special education teachers. Apart from incorporating more and more special needs students into general education classrooms, Shoho (2002) also stresses the increased accountability pressure imposed on general education teachers. What about Holland?

Method

Sample and Procedures

In the Dutch provinces Noord-Holland, Zuid-Holland, Utrecht, Zeeland, Noord-Brabant, and Gelderland a sample was drawn of 813 primary school teachers. The questionnaires were administered and collected by students of the University of Professional Education Utrecht who are often employed as teacher, school counselor or principal in the sampled region or province.ⁱ The study was held in October-November 2004 with a response rate of 35%. Of the total sample, 607 participants (75%) were employed as general education teachers, the remaining 25% were special education teachers. Average years of teaching experience were 14.9 and 15.8, respectively. The gender composition showed that 81% of general and 74% of special education teachers were female. In general, the sample is also representative with respect to urban/rural population density, gender, ethnic affiliation, religious affiliation, and years of experience of the teachers.

Measures

The Dutch translation (MBI-NL-ES, UBOS-L) of the Maslach Burnout Inventory (MBI) was used to collect the data (Maslach & Jackson, 1996 ; Schaufeli & Van Dierendonck, 2002). The UBOS-L is a 22-item self-report, six-point Likert scale designed to measure three psychological constructs of burnout: *Emotional exhaustion* (EE), *Depersonalization* (DP), and *Personal accomplishments* (PA). The possible range of scores on the UBOS-L are emotional exhaustion, 0-48; personal accomplishments, 0-42; and depersonalization, 0-42. Burnout is indicated by higher scores on the emotional exhaustion and depersonalization scales and by lower scores on the personal accomplishment scale. Compared to the American MBI, the Dutch scale of depersonalization consists of 7 instead of 5 items.

In a recent empirical study to the psychometric quality of the Dutch MBI the conclusion is reached that "the MBI-NL-ES [UBOS-L] can be considered a valid and reliable burnout-instrument" (Van Horn, 2002,40). Factorial validity is considered adequate, internal consistency meets the criteria of $>.70$ set by Nunnally (1978), and test-retest reliability over a 12 months period is good. The same is concluded with respect to discriminant and construct validity (Van Horn, 2002). In light of these psychometrics, the internal homogeneity of all the administered data is not as good as might be expected. Cronbach's alpha coefficients calculated in this study for personal accomplishments (.80) and emotional exhaustion (.87) are good to excellent. However, an internal consistency of .60 for depersonalization is below expectation.

Two scales, both developed by Yoon (2002), were used to tap teachers personal characteristics: *Self-efficacy in relationship building and behavioral management* and *Negative affect*. Self-efficacy consists of seven items. Using a 7-point scale from 1 (*not true at all*) to 7 (*very true*) participants responded to statements like "I can build a good relationship with even the most difficult student", "I have positive characteristics that are very helpful when there is a problem with a student", and "I can successfully handle the situation when one of the students gets disruptive or oppositional". Cronbach's alpha for these seven items of the self-efficacy scale was .79. The following three items were used to measure teacher's Negative affect: "I have difficulty controlling my emotions when there is a conflict with students", "I feel angry when a student repeatedly does not follow my advice", and "students hurt my feelings by intentionally not following my directions". Cronbach's alpha for this scale was relatively low with .62.

Student behavior as indicator of burnout is measured by using two SENECA scales. Scale *Student responsibility and discipline* is characterized by five items like “the degree of responsibility students show toward their school assignments” and “your overall level of satisfaction with student responsibility and discipline in your school”. The second scale dealing with student behavior was made up of four items dealing with *Student-peer relations* and was constructed by using items like “Students care about each other” and “Students respect each other”. The scoring dimension of these twelve items ranged from 1 (*very unsatisfied of this school characteristic*) to 5 (*very satisfied of this school characteristic*). Indices of internal consistency ranged from .85 for student-peer relations to .86 for student responsibility and discipline. Also number of students in classroom is taken in into account.

Analysis of the data

The data along with associating school and teacher variables were entered in SPSS for analyses. We used multivariate analysis of variance (MANOVA). Also two sample t-tests are used to compare our results with American burnout data provided by Shoho (2002).

Structural Equation Modeling (EQS.61) will be used to conduct path analyses to capture the relationship between stress indicators as independent and burnout as dependent variables among general and special education teachers.

Results

In Table 1, means and standard deviations of the UBOS-L (MBI-NL-ES) are shown. The MANOVA F ratio for determining burnout differences between general and special education teachers was not statistically significant ($\Lambda = .998$, $F = .497$, $df = 3$; 806, $p = .6840$).

Table 1. Means and Standard Deviations of the UBOS-L (MBI) for General and Special Education Teachers

<i>Group</i>	<i>EE</i>		<i>DP</i>		<i>PA</i>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
General education (n=604)	12.77	7.55	5.23	3.78	31.61	5.12
Special education (n=206)	13.06	7.17	5.15	3.73	31.20	5.38

Note. Sumscores of the UBOS-L are presented here.

An other set of findings resulted from comparing American and Dutch mean burnout scores. Because the number of items differs in the American and Dutch MBI-scales, we rescaled the figures given by Shoho (2002, p.148, Table 7.2). Teachers in the U.S. (South Texas) and the Netherlands differ significantly in burnout level. American general and special education teachers experience more burnout. For general teachers we found significant differences with respect to EE ($t = -28.98$, $df = 603$, $p = .0000$), DP ($t = -28.75$, $df = 603$, $p = .0000$), and PA ($t = -14.21$, $df = 603$, $p = .0000$). For special education teachers, differences with respect to EE ($t = -6.52$, $df = 205$, $p = .0004$), DP ($t = -3.33$, $df = 205$, $p = .0010$), and PA ($t = -12.53$, $df = 205$, $p = .0000$) were also significant. So, both American general and special educational teachers experience more burnout than their Dutch colleagues. Contrarily to American teachers, there are no differences in burnout levels between Dutch general and special education teachers.

As sketched in the theoretical introduction, two topics are often associated with explaining burnout: personal teacher characteristics and student behavior. In Table 2 we look at five stress indicators who might theoretically be related to burnout.

Table 2. Means and Standard Deviations of Stress Indicators for General and Special Education Teachers

Group	Self-efficacy		Negative affect		Student responsibility & discipline*		Student-peer relationships*		Class size*	
	M	SD	M	SD	M	SD	M	SD	M	SD
General education (n=558)	5.37	0.84	3.29	1.26	3.57	6.11	3.78	0.58	21.94	5.19
Special education (n=198)	5.25	0.82	3.15	1.92	3.19	5.91	3.39	0.64	12.53	3.51

Note. Meanscores of stress indicators are presented here.

* *p*-value <.0001.

Contrary to burnout, the MANOVA F ratio for determining differences between stress indicators among general and special education teachers was significant ($\Lambda = .555$, $F = 120$, $df = 5; 750$, $p = .0000$). Not surprisingly, highest scores for student responsibility and discipline, student-peer relationships, and class size were found among general education teachers. Differences concerning self-efficacy and negative affect are non-significant between general and special education teachers.

In order to get some grip on the relation between burnout and stress indicators among teachers, two path analyses were conducted in EQS-61. The center of both path diagrams consists of the triangle between EE, DP, and PA (Byrne, 1991, 1993, 1994). Also prominent in the theory of burnout is the link between emotional exhaustion and student behavior. Often, personal characteristics of teachers are more associated with depersonalization and personal accomplishment within the framework of burnout. Given the relatively low reliability of scale depersonalization, we focus on personal accomplishment as the outcome of the burnout process. All major modeling results are presented in Table 3; regression paths are drawn in Figures 1 and 2.

Table 3. Summary of Model-Fit Statistics for General and Special Education Teachers

Model	SB χ^2	d.f.	NFI	NNFI	CFI	RMSEA
<i>General teachers</i>						
0 model (8 variables)	792.54	28	---	---	---	---
1 Initial path model (10 theoretical regression paths, no covariance)	398.81	18	.497	.225	.502	.197
2 Specified model (10 regression paths, two specified covariances and correlated errors between EE and DP)	47.92	15	.940	.920	.957	.064
<i>Special education teachers</i>						
0 model (8 variables)	277.85	28	---	---	---	---
1 Initial path model (10 theoretical regression paths, no covariance)	183.96	18	.500	.247	.516	.186
2 Specified model (10 regression paths, two specified covariances and correlated errors between EE and DP)	21.58	15	.922	.951	.974	.047

Note. SB χ^2 is the Satorra-Bentler scaled chi-square. NFI, NNFI, CFI, and RMSEA are based upon the Sattora-Bentler χ^2 .

As can be seen in Table 3, the model just specified by theoretical considerations did not a good job. However, with some minor adjustments model fit can be improved enormously. On basis of the results of the Lagrange multiplier test two covariances were specified. The first one was between scales student responsibility and student-peer relations; the other one between scales self-efficacy and negative affect. This can be explained by the fact that both pairs of scales stem from the same measurement source (i.e. SENECA and Yoon). Also, the correlation between the errors of two scales of burnout (error of EE and the error of DP) needed to be included in the model. The theoretical regression path between negative affect as a causal variable of PA is skipped. At the same time, an extra parameter between PA and student-peer relation is added. As can be inferred from Table 3, the theoretical points of view and the adjustments made in the model are very well reproduced by the sampled data for both groups of teachers (Model 2). All standardized regression parameters of Model 2 are presented in Figure 1 and Figure 2 and are our starting point for the discussion between general and special education teachers.

Figure 1. Definitive Model (2) of Burnout among Dutch General Education Teachers (n=544).

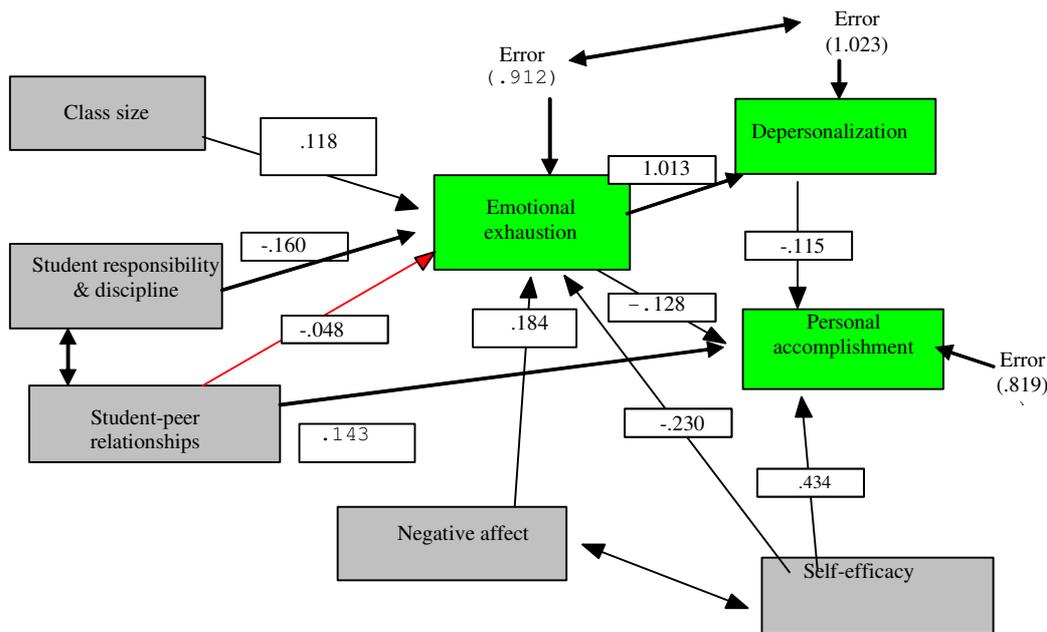
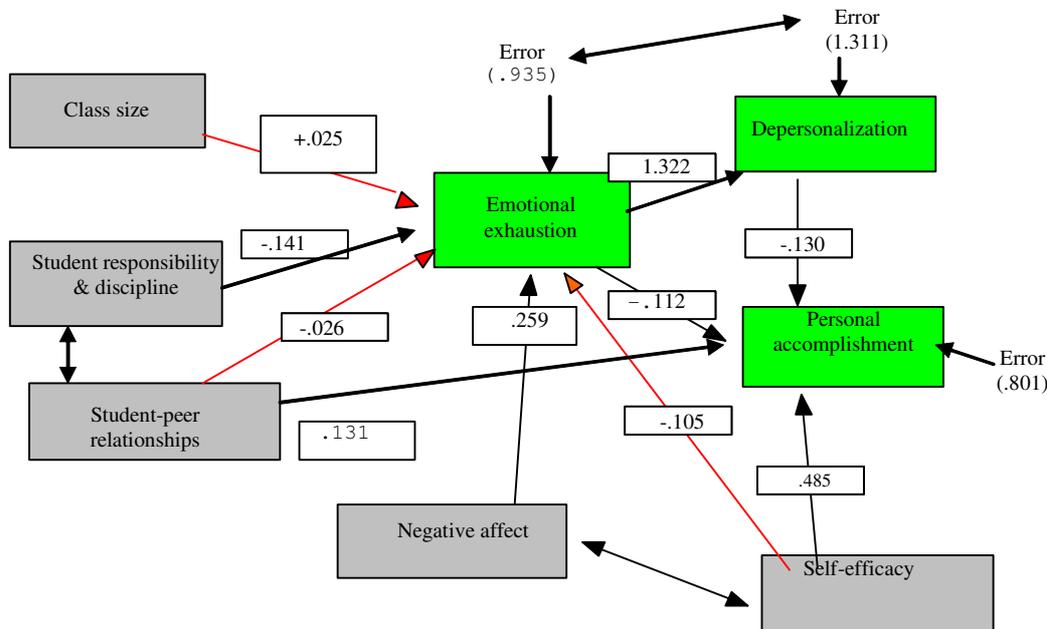


Figure 2. Definitive Model (2) of Burnout among Dutch Special Education Teachers (n=196).



For general education teachers in Figure 1, all reported standardized parameters are significant at the 5% level. There is only one exception to it: the effect of student-peer relationships on EE (-.048). Also, for special education this parameter does not differ significantly from zero (-.026). The null-hypothesis representing the effect of class size on emotional exhaustion (.025) is also not rejected in case of special education teachers. So, burnout theory linking student behavior to emotional exhaustion is only marginally confirmed among special education teachers.

There are also three other regression coefficients not significantly different from zero in case of special education teachers. Two of these parameters lie at the heart of the theoretical model: the link between EE and PA (-.112), and the causal effect between DP and PA (-.130). This could be a consequence of the relatively small sample of special education teachers. Although tested significant, in case of general teachers the magnitude of the coefficients between EE and DP (-.128) and DP and PA (-.115) is more or less similar. The fifth insignificant standardized parameter among special teachers is self-efficacy influencing emotional exhaustion (-.105). In other words, feelings or ideas among special educators about how good they feel or are in dealing with students do not bring down the reported level of emotional exhaustion. In case of general education teachers this parameter is twice as large (-.230).

The last analysis consists of fitting a path regression model in order to see whether parameters that are tested significant from zero in both specified models, do differ among groups. In total eight constraints are added: six regression paths, two covariances and one pair of correlated errors (model fit: $SB \chi^2_{(36)}=73.82$; NFI = .932; NNFI = .950; CFI = .963). Reviewing univariate and multivariate statistics, we have to conclude that all specified equality constraints except one hold: the effect of negative affect on emotional exhaustion ($\chi^2_{(1)}=6.87$; $p=0.009$). For special teachers this standardized parameter (.259) is much larger than for general education teachers (.184).

This reinforces our conclusion with respect to self-efficacy. In case of special teachers, self-efficacy hardly lowers the level of emotional exhaustion; at the same time, their personal negative feelings enlarge their emotional exhaustion.

Discussion

In this research we find for special school teachers a stronger effect in psychological variables than for regular teachers. Many teachers enter special education because of their desire to help children and youth. While the desire to help others can lead to strong student-teacher relationships and can provide teachers with commitment to education, this same desire can make it difficult for teachers to leave their work at the schoolhouse door. In fact, professionals who are empathetic, sympathetic, dedicated, idealistic, and people-oriented are vulnerable to experiencing excessive stress, particularly when they face the multitude of problems that students with disabilities present. Therefore it is important that teachers alleviate some of the stress caused by role overload by setting realistic expectations (see also Greer & Greer, 1992). We don't find significant burnout differences between general and special education teachers. One explanation for this finding may be attributed to the fact that the general and the special school environment in Holland is in many respects comparable. Contrary to the world-wide movement to include 'problem children' in the mainstream, traditionally Dutch governmental policy keeps supporting the special education system. Special education teachers have higher salaries than general school teachers, have about the same pupil contact hours as their colleagues in regular schools, have much smaller classes, and have a positive professional self-esteem. They don't experience a lack of recognition. Unlike the U.S. (South Texas) the movement toward inclusive education did not bring about a real change in regular schools. General teachers don't experience an 'ever growing population of special needs children' to be included in their classroom, like teachers in the U.S. apparently do.

There is strong evidence that Dutch employees in general (not only teachers) have greater overall coping resources than their U.S. counterparts, and they make greater use of support seeking strategies. The more passive forms of coping used by U.S. employees suggest that they sense less control over their working environment. The greater degree of emotional exhaustion, depersonalization and diminished personal accomplishment in the U.S. may result from the much longer number of hours they are working and the much shorter holiday-time. This seems consistent with Hazekamp, Meeus, and Ter Poels's finding (1988) that workers in the Netherlands have a growing interest in leisure activities in contrast to work.

There are many reasons for why it is difficult to interpret results between school systems (general and special education) and especially across cultures in studies such as these - only one of which we highlight here. To fully understand patterns of personal and professional functioning of teachers, it is necessary to understand the specific educational and administrative practices, values and norms out of which such patterns emerge. By focusing only on outcomes and not the ecological correlates of such outcomes in this study, we do not know the social sources and consequences of the kinds of differences we found. Increasingly, researchers of stress and burnout in education are attending the overall organization of teachers' behavior that includes the situating of the outcomes in the unique life- and work-spaces that comprise their development. Our work continues in this direction. The robustness of this study's outcomes could be best determined by additional studies of these populations.

Qualitative research is needed to provide insights on buffers used to alleviate stress and burnout in Dutch and American general and special schools.

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Notes

1. Several students of the University of Professional Education of Utrecht participated in collecting the data: Arjanneke Brandsma, Sabine Bax, Menno van Es, Petra den Hollander, Frits van Hout, Gea Hoving, Gerbert Sipman, Lindy Slingerland, Albert Sluiter, Ingrid Muurman, Gerda Pool en Wil Vlam. We appreciate their efforts in sampling the respondents.
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