

UNIVERSITEIT TWENTE.

Burnout and work engagement among elementary teachers:  
- Are there differences among teachers? –

A Cross Sectional study

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## 1. Abstract

**Background.** Burnout has been known for a long time. The term was first used in the 1970s but burnout has been already identified before that time, and was typically characterized by exhaustion, cynicism and inefficacy. Through a change within psychology to focus more on the positive aspects of psychology, a phenomenon called work engagement recently gained the attention of many researchers. Work engagement is characterized by vigor, dedication and absorption.

**Aim.** Since it is still not known why different people within the same profession develop burnout and/or high work engagement, this study examines differences between elementary school teachers with higher levels of burnout and teachers who are work engaged. The study applied different work related variables, which included sickness absence, workload, work satisfaction and work performance. By knowing the differences between these two groups the situation of the burned out teachers could be improved.

**Method.** This study used cross sectional data of the first wave of the study conducted by the Consent foundation schools, of which 254 teachers' participated. The teachers were divided into two groups; teachers with higher levels of burnout and teachers who are work engaged. Differences between the two groups were statistically analyzed.

**Results.** Among the participants, 50 were male and 204 were female. On average they were 47.46 years old. They had on average working experience of 18.82 years. The results showed that teachers with higher levels of burnout differ significantly from work engaged teachers on the variables workload, work satisfaction and work performance but not on sickness absence.

**Conclusion.** Teachers with higher levels of burnout experience more workload, were less satisfied with their jobs and their work performance is poorer compared to work engaged teachers. Future studies can use these results to determine how the situation among the burned out teachers can be improved.

## 1. Samenvatting

**Achtergrond.** De term burn-out is al lang bekend. Sinds de jaren 70 wordt gebruikt gemaakt van de term maar burn-out bestond al voor deze tijd. Het wordt gekenmerkt door uitputting, cynisme en inefficiëntie. De afgelopen jaren heeft er een verandering plaats gevonden binnen de psychologie. Steeds vaker wordt binnen de psychologie de nadruk gelegd op positieve aspecten van welzijn zoals bevoegenheid. Bevoegenheid wordt gekenmerkt door vitaliteit, toewijding en absorptie.

**Doel.** Aangezien dat nog niet bekend is waarom verschillende mensen binnen hetzelfde werkveld burn-out en/of bevoegenheid ontwikkelen, is het doel van dit onderzoek de verschillen tussen leraren op basisscholen met hoge niveaus van burn-out en leraren op basisscholen die bevoegen zijn te onderzoeken. De verschillen hebben betrekking tot verschillende werk relateerde variabelen. Deze variabelen zijn ziekteverzuim, werkdruk, werktevredenheid en werkprestatie. Als men de verschillen weet, kan de situatie van de leraren die last van burn-out hebben worden verbeterd.

**Methode.** 254 basisschool leraren van de stichting Consent namen deel aan dit onderzoek. Het werd de cross sectionele data van de eerste meeting, van een studie uitgevoerd door de stichting Consent, gebruikt. De leerkrachten waren verdeeld in twee groepen, namelijk leraren met een hoger niveau van burn-out en leraren die bevoegen zijn. De verschillen tussen de twee groepen werden statistisch geanalyseerd.

**Resultaten.** 50 van de deelnemers waren mannen en 204 waren vrouwen. Gemiddeld waren ze 47.46 jaar oud. Het gemiddelde aantal werkervaring was in dit onderzoek 18.82 jaren. Uit de resultaten bleek dat leerkrachten met een hoger niveau van burn-out significant verschillen van bevoegen leerkrachten op de variabelen werkdruk, werk tevredenheid en werk prestatie maar niet op de variabel ziekteverzuim.

**Conclusie.** Basisschool docenten met een hoger niveau van burn-out ervaren meer werkdruk, waren minder tevreden met hun baan en presteren slechter op werk vergeleken met bevoegen leerkrachten. Volgende onderzoeken kunnen deze resultaten gebruiken om te bepalen hoe de situatie van de leraren met burnout kan worden verbeterd.

## **2. Introduction**

According to Maslach, Schaufeli and Leiter (2001) the term burnout was first used in the United States in the 1970s. That does not mean burnout didn't exist before that time. While the same symptoms were present, other terms were used instead of burnout, for example "exhaustion reaction" (Maslach & Schaufeli, 1993). There are many different symptoms of burnout, which can be grouped into five separate categories, described as physical, emotional, behavioral, interpersonal and attitudinal symptoms (Kahill, 1988). Investigators have found strong evidence of a relation between burnout and physical health. They found statistically significant cases of burnout with the presence of physical exhaustion, insomnia and somatic problems such as headaches, colds and the flu (Kahill, 1988). Whereas physical symptoms have shown statistically significant associations with burnout, emotional symptoms are not as often investigated as the physical ones. Nonetheless, the most common emotional complaints from affected people are anxiety, guilt and feelings of helplessness (Kahill, 1988). According to Armstrong (1979) qualitative data suggests that affected people show inflexible compliance with given rules, a high rate of absence at work, alcohol and drug abuse. These symptoms belong to the behavioral category. In reference to the interpersonal symptoms, qualitative data suggests that people with burnout communicate in impersonal ways with other people. Furthermore have people with burnout difficulty concentrating during a conversation with others (Armstrong, 1979). The fifth category contains the attitudinal symptoms. Reported by Kahill (1988) qualitative data showed a correlation between burnout and negative attitudes towards work and life in general.

The term burnout was introduced by Freudenberg to describe an emotional degradation which appears step by step and is characterized by a decline in both motivation and commitment (Schaufeli, Leiter & Maslach, 2008). Schaufeli, Leiter and Maslach (2008) state that burnout was primarily seen as a risk for "naive, idealistic, young service professionals who became exhausted, cynical, and discouraged through their experiences in cold bureaucratic systems serving entitled, unresponsive clients with intractable problems." Nowadays it is one of the most present manifestations of job related health problems (Fernet, Austin, Genevieve-Trepénier & Dussault, 2013). Hupkens (2005) stated that one person out of ten, within the population that works, has burnout. With a prevalence rate of 30% within teachers, the highest prevalence rate is among this group, stated by Weber and Jaekel- Reinhard (2000). Burnout among teachers is a

great problem because it does not only have impact on the teachers. Teachers suffering from burnout also have an impact on their students since the teaching quality turns poorer (Koustelios & Tsigilis, 2005). Interestingly, within the group of teachers there are further differences. There is a lower risk for physical education teachers what suggests that exercise can prevent burnout (DePaepe, French and Lavay, 1985).

According to Schaufeli, Leiter and Maslach (2009) there are certain circumstances increasing the risk to develop burnout. These circumstances were the same both in the past and nowadays. The main circumstances are imbalance between job demands and job resources as well as an internal conflict between the values of the person. Job demands are linked to psychological and physiological costs whereas job resources are referred to reduce these costs (Schaufeli & Bakker, 2004). Examples for job demands are high work pressure or emotional demands and examples for job resources are social support or autonomy (Bakker & Demerouti, 2007). An imbalance between job demands and job resources increases the risk to develop burnout once the job demands are higher than the job resources.

In scientific work, a three dimensional concept, including the main characteristics of burnout is used. This concept includes exhaustion, cynicism and inefficacy (Schaufeli, Leiter & Maslach, 2009). Exhaustion, cynicism and inefficacy were introduced within the Maslach Burnout Inventory (MBI) in 1986. This Inventory is the most commonly used instrument to measure burnout and its dimensions (Schaufeli, Bakker, Hoogduin, Schaap & Klader, 2001). Even though the scales are named differently (emotional exhaustion, depersonalization and personal accomplishment instead of exhaustion, cynicism and inefficacy) they mean the same.

In the last decades, psychology has mainly focused on the negative aspects of human behavior, especially after the Second World War. A count of all psychological articles in 1996 revealed that there was only one article about positive aspects of psychology for every 15 articles about the negative aspects of psychological behavior in the Journal of Occupational Health Psychology (Schaufeli & Bakker, 2004). Approximately ten years ago, a different field within psychology, called positive psychology was reintroduced. Positive psychology is defined as “the study of positive emotions, positive character and positive institution” (Seligman, Steen, Park & Peterson, 2005). The effort of positive psychology is to not only engage in the improvement of

either problems or mental problems but rather with the establishing of positive skills (Seligman & Csikszentmihalyi, 2000).

Through this change of thinking in psychology, many researchers nowadays pay attention to a phenomenon which is seen as the opposite of burnout. In recent years, many started to examine work engagement rather than burnout (Gonzales-Roma, Schaufeli, Bakker and Lloret, 2006). Work engagement deals with positive skills and positive emotions compared to burnout. Therefore it fulfills the criterion of positive psychology. Though research on this field has just begun, researchers have already reported some important findings (Bakker, Schaufeli, Leiter and Taris, 2008).

Langelaan, Bakker, van Doomen and Schaufeli (2006) define work engagement as a positive, fulfilling work related state of mind, characterized by vigor, dedication and absorption. Vigor means that the person has a high level of energy while working, in combination with mental resilience. Dedication displays a high sense of enthusiasm and inspiration and with absorption it is meant to be fully concentrated and engaged in the own work (Langelaan et al., 2006). Langelaan et al (2006) consider work engagement as an independent state which is negatively related with burnout whereby they consider vigor and dedication as the direct positive opposites of exhaustion and cynicism. Hutell and Gustausson (2010) see not only vigor and dedication as the direct opposite of exhaustion and cynicism but work engagement as a whole as the direct opposite of burnout as a whole. Therefore, they conclude that an absence of burnout suggests that the certain individuals are engaged at their workplace and that workers can either have trouble with burnout or be engaged in work but not both at the same time. Schaufeli and Bakker (2003) see the relation between work engagement and burnout differently. According to them, work engagement is not the direct opposite of burnout but rather a related but separate construct. Schaufeli and Bakker (2004) also found out that burnout and work engagement are negatively related.

In contrast to employees with burnout, engaged workers are characterized by high levels of energy, enthusiasm for their job and they are also highly immersed in their work which leads to a positive difference for the individual worker and also the work organization (Bakker, Schaufeli, Leiter & Taris, 2008). Although engaged workers may seem similar to workaholics, they differ in a fundamental aspect. While the majority of the workaholics have a compulsive

drive, engaged employees lack this typical drive. Instead, the engaged employees work hard because, for them, work is fun (Bakker et al., 2008).

Since work engagement research had just recently begun, it is still not known wherein people with the same profession differ when it comes to developing either burnout or work engagement. Since burnout has the highest prevalence rate within teachers, the current study aims to examine differences in work related variables among elementary school teachers. The variables considered in this study were sickness absence, workload, work satisfaction and work performance. Known differences between teachers suffering from burnout and teachers who are work engaged could help to improve the situation of teachers. The current situation is that one out of three teachers suffers from burnout. Once it is known how the circumstances of burned out teachers differ compared to colleagues who are engaged in their work these circumstances could be modified positively.

The general research question for this research is:

- *Do elementary teachers with higher levels of burnout differ from elementary teachers who are work engaged with respect to work related characteristics?*

This general research question is split into several sub questions which are more detailed. These questions are the following:

- *Do elementary teachers who are work engaged have a lower absence rate due to sickness than elementary teachers with higher levels of burnout?*
- *Do elementary teachers who are work engaged experience less workload than elementary teachers with higher levels of burnout?*
- *Are elementary teachers who are work engaged more satisfied with their job than elementary teachers with higher levels of burnout?*
- *Do elementary teachers who are work engaged report a better work performance than the elementary teachers with higher levels of burnout?*



### **3. Method**

#### *3.1 Sample/ Procedure*

Data for this study were collected by the Consent Foundation in 2013. The Consent Foundation administers all public schools in the communities of Enschede, Oldenzaal, Losser and Dinkelland. The aim of the study was to gain more knowledge about the resilience and the welfare of their employees. All employees from the public schools were asked to participate in the study. Consent contacted the employees by sending letters, asking them to participate in the study by completing an online questionnaire. The only criterion for the study was therefore to be able to get access to a computer and the internet. Consent sent letters to a total of 628 employees. Ultimately, 339 employees participated in the study, a response of 53.98%. Out of the 339 participant 254 (74.93%) were teachers. The others were managers (17.7%), instructors (1.77%) or non teaching employees (12.1%). The participation was entirely voluntary and the answers were handled anonymously. This current study used the cross-sectional data of the first wave only.

#### *3.2 Measurement instruments*

The survey contained several independent questionnaires which measured different work related variables. At the beginning the participants were asked about their demographic characteristics such as their sex, age and occupation within the school system. The questionnaires important to this study were those related to burnout, work engagement, sickness absence, workload, work satisfaction and work performance.

##### *3.2.1 Burnout*

Burnout was measured with the *Utrecht Burn-out Scale (UBOS)*. This is one of the many versions of the *Maslach Burnout Inventory* (Maslach & Jackson, 1986). The UBOS is the Dutch version of the inventory and exists in three different versions. The three versions are constructed for teachers, for sociable jobs and for general work groups respectively (Luteijn & Barelds, 2013). This study used the general version of the UBOS containing 16 items. An example of an

item from the UBOS is, “I feel exhausted due to my work”. The response options ensued out of a seven point scale enabling the participant to choose an answer ranging from “at no time” to “daily”. A high score on the UBOS meant the participant had a higher level of burnout. Good reliability and validity of the UBOS was found in many studies (Langelaan et al., 2006). In this study, an acceptable alpha of 0.704 was found which could not be substantially raised by deleting items of the UBOS.

### *3.2.2 Work engagement*

Work engagement was measured with the *Utrecht Work engagement scale* (UWES). There are two versions of the scale, a long version of the UWES, containing 17 items and a short version containing nine items (Nerstad, Richardsen & Martinussen, 2010). This study used the short version of the UWES. The nine items in the short version of the scale measured the three main characteristics of work engagement. Three of the nine items measured vigor, three items measured dedication and three items measured absorption (Nerstad, Richardsen & Martinussen, 2010). An example of an item within the UWES is, “when I am working, I feel fit and strong”. The response options also consisted of a seven point scale, enabling the participant to choose an answer ranging from “at no time” to “daily”. In this study the total score was merely important. A high score on the UWES meant that the participant was engaged in his or her job. According to Schaufeli, Bakker and Salanova (2006) women scored slightly higher on the UWES, though the difference was not significant. Other studies showed a good reliability and validity of the UWES (Langelaan et al., 2006). Cronbach’s alpha from the UWES in this study was 0.904. It couldn’t be substantially raised by deleting items from the scale.

### *3.2.3 Sickness absence*

Sickness absence was determined by asking several questions derived from the Dutch working condition survey 2011 (Koppes, de Vromme, Mol, Janssen, van Zwieten & van den Bosch, 2012) The first question was “were you in the last 12 months at least once absent at work?”. The participants could answer with either yes or no. Next the participants were asked to specify their

answer by giving the exact number of days they were absent and how often they were absent in the last twelve months. Furthermore, the participants were asked for the reason of their last absence even if it was further away than twelve months. Several different answer possibilities such as the *flu*, *psychological discomfort* or a *conflict at work* were given. If their reason wasn't one of the possibilities they could write their reason in an empty box. The last question over sickness absence gave more knowledge whether the sickness absence was a consequence of their work or not. The participants could choose out of four different answer possibilities (1. *Yes, main result from my work*, 2. *Yes, partly a result from my work*, 3. *No not a result from my work* and 4. *I don't know*). This study was primary interested in the amount of days the participants were absent.

#### 3.2.4 Workload

Workload was measured with a subscale of the Job Content Questionnaire. The Job Content Questionnaire measured two dimensions of the job, the social and the psychological aspects, respectively (Karasek, Brisson, Kawakami, Houtman, Bongers & Amick, 1998). The Questionnaire has five different subscales measuring decision latitude, psychological demands, social support, physical demands and job insecurity (Karasek et al., 1998). The subscale of interest used in this study concerned workload. This subscale had five items. Each item could be answered with a four point response scale. The response options ranged from *entirely disagree* to *entirely agree*. An example for an item was the thesis “my job demands that I work very quickly”. Cronbach's alpha of this subscale was 0.602. This alpha was considered acceptable and could not be raised by deleting an item.

#### 3.2.5 Work satisfaction

Work satisfaction was measured by questions derived from the Dutch working condition survey 2011 (Koppes et al., 2012). The participants were asked to answer two questions. The first question was about their satisfaction regarding to the work circumstances and the second question was about their satisfaction regarding to their work in general. Both questions were

answered with a five point Likert scale. The answer possibilities ranged from *very unsatisfied* to *very satisfied*. Cronbach's alpha of the two questions was 0.645 which was an acceptable value of Cronbach's alpha bearing in mind that it contained only two questions.

### 3.2.6 Work performance

The work performance of the participants was measured by one question. The participants were asked how they would judge about their own work performance in the last four weeks. Answer possibilities ranged from one up to ten whereby one meant poor quality and ten meant very good quality.

### 3.3 Analysis

The collected data were analyzed with the 20<sup>th</sup> version of the Statistical Package for the Social Science (SPSS). Firstly, correlations between burnout, work engagement, sickness absence, workload, work satisfaction and work performance were calculated with Pearson's correlation coefficients ( $r$ ) to examine general correlations between the different variables. The teachers were then divided into two groups. These groups were the teachers with higher level of burnout and the teachers who are work engaged. They were divided into the groups by setting up a cut off score for both the UWES and the UBOS. The cut off scores were determined by the sum of the mean and one standard deviation upwards. Participants scoring above the cut off score on the UWES were in the work engaged group and those who scored above the cut off score of the UBOS were in the group with higher levels of burnout. Teachers who aren't in either of the two groups ( $n=175$ ) were not selected in the further analysis. There were not any doubles within the groups. To look whether the data was normal distributed or not a Shapiro-Wilk test of normality has been used. Differences relating to sickness absence, workload, work satisfaction and work performance between teachers with higher levels of burnout and work engaged teachers were tested with independent sample t-tests. If the data of one of the variables were not normally distributed, a Mann Whitney U test was conducted to reconfirm the results from the independent t-tests.

## 4. Results

### 4.1 Participants

Due to the fact that this study was interested in the differences within teachers, it was only focused on the 254 teachers ( $n=254$ ). Since most of the teachers working at elementary schools are female, this distribution was seen in this study as well. Only 50 teachers were male which made a percentage of 19.7%. The remaining 204 teachers were female (80.3%). The age of the participants varied between 24 years and 64 years old. The average age of all participants was 47.46 years ( $SD= 11.57$ ). The time the participants worked as teachers varied as well. The average time was 18.82 ( $SD= 12.43$ ) years. The participants working the shortest time as teachers worked there for just about a year. The participant working the longest time as a teacher worked as a teacher for 43 years. Table 1 gives an overview of the demographic characteristics of the participants. The mean scores of the important variables for this study (sickness absence, workload, work satisfaction, work performance, burnout and work engagement) can also be seen in table 1. On average participants were absent for 7.3 days ( $SD= 23.8$ ) in the past 12 month due to sickness. The high standard deviation could be explained by the wide variances in absent days ranging from no sickness absence at all, to 270 absent days in the last twelve months. The mean score of the variable workload was 2.8 ( $SD= 0.39$ ). Since there were answer possibilities ranging from one to four, participants averagely experienced a slightly heightened workload. The questions over the work satisfaction was averagely answered with a score of 4.0 ( $SD= 0.63$ ). It can be assumed that the participants are in general satisfied with their work situation. Participants gave an average score of 8.8 ( $SD= 1.45$ ) for their work performance. At the UBOS participants scored averagely a 1.4 ( $SD= 0.78$ ) indicating that the participants on average had low levels of burnout. For the UWES the average the score of the participants was 4.7 ( $SD=0.80$ ).

Table 1 also gives an overview over the specific characteristics in the two groups of teachers. The teachers with higher levels of burnout ( $n=40$ ) and the teachers who are work engaged ( $n=39$ ). Eight participants of the group of teachers with higher levels of burnout were male (20%) and 32 teachers were female (80%). The participant in this group were on average 51.48 ( $SD= 9.77$ ) years old and worked averagely as teachers for 19.7 ( $SD= 12.49$ ) years.

Among the work engaged teachers, five were male (12.8%) and 34 were female (87.2%). The average age in this group was 43.22 (SD= 12.19) years. Participants in this group worked as teachers for averagely 17.08 (SD= 11.57) years. The average scores on the different questionnaires will be viewed more precisely in paragraph 4.3.

Table 1. Participant's characteristics

	All Teachers N=254	Higher level of burnout n=40	Work engaged n=39
Gender:			
Men (%)	50 (19.7%)	8 (20%)	5 (12.8%)
Women (%)	204 (80.3%)	32 (80%)	34 (87.2%)
Average age in years (M/SD)	47.46 (11.57)	51.48 (9.77)	43.22 (12.19)
Average time as a teacher in years (M/SD)	18.82 (12.43)	19.70 (12.49)	17.08 (11.57)
Average scores:			
Sickness absence (M/SD); days past year	7.34 (23.8)	14.76 (47.2)	4.46 (14.5)
Workload (M/SD); range 1-4	2.83 (0.39)	3.11 (0.42)	2.81 (0.34)
Work satisfaction (M/SD); range 1-5	4.04 (0.63)	3.40 (0.67)	4.51 (0.56)
Work performance (M/SD); range 1-11	8.83 (1.45)	7.93 (1.87)	9.56 (0.79)
Burnout (M/SD); range 1-7	1.42 (0.78)	2.75 (0.49)	0.81 (0.44)
Work engagement (M/SD); range 1-7	4.71 (0.80)	3.86 (0.82)	5.77 (0.16)

#### 4.2 Correlations

Table 2 shows the correlations between the variables sickness absence, workload, work satisfaction, work performance, burnout and work engagement. Ten of the correlations were significant whereof six were negative correlated and four variables were positive correlated. As expected negative significant correlations were seen between *work satisfaction* and *sickness absence* ( $r = -.297$ ;  $p < .01$ ), *work satisfaction* and *workload* ( $r = -.284$ ;  $p < .01$ ), *work performance* and *sickness absence* ( $r = -.448$ ;  $p < .01$ ), *burnout* and *work satisfaction* ( $r = -.516$ ;

$p < .01$ ), *burnout* and *work performance* ( $r = -.378$ ;  $p < .01$ ) and between *work engagement* and *burnout* ( $r = -.654$ ;  $p < .01$ ).

Positive significant correlations were between *work performance* and *work satisfaction* ( $r=.256$ ;  $p<.01$ ), *burnout* and *workload* ( $r =.416$ ;  $p <.01$ ), *work engagement* and *work satisfaction* ( $r=.442$ ;  $p<.01$ ) and between *work engagement* and *work performance* ( $r =.315$ ;  $p < .01$ ).

The strongest correlation was between work engagement and burnout. With a Pearson's correlation coefficient of  $-.654$ , burnout and work engagement were clearly strongly correlated but nevertheless different constructs. There were no significant correlations between burnout and sickness absence or between sickness absence and work engagement. Workload had a stronger correlation with burnout than with work engagement since burnout and workload were significantly correlated whereas workload and work engagement were not. The relation between work satisfaction and burnout and work engagement respectively can also be seen in table 2. While burnout correlated negatively significant with work satisfaction, work engagement correlated significantly positive with the same variable. All in all it was obvious that the correlations with burnout were stronger than those with work engagement.

Table 2. Correlations between the different variables

	1	2	3	4	5	6
1. Absence due sickness (days)	1	-	-	-	-	-
2. Workload	.003	1	-	-	-	-
3. Work satisfaction	-.297**	-.284**	1	-	-	-
4. Work performance	-.448**	-.115	.256**	1	-	-
5. Burnout	.168	.416**	-.516**	-.378**	1	-
6. Work engagement	-.134	-.117	.442**	.315**	-.654**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed)

#### 4.3 Differences among teachers

There were 40 teachers (n=40) within the group of participants with higher levels of burnout and 39 teachers (n=39) were within the group of the participants who were work engaged. They were divided into the groups with a cut-off score made previously.

Table 3 shows the results of the independent t-tests. The table shows the results from the four variables (absence due to sickness, workload, work satisfaction and work performance) and the means with the standard deviations. Earlier was mentioned that participants scoring high on burnout also score high on workload while work engagement and workload correlated slightly negative. The results of the independent t-test further confirmed that the differences between teachers with higher level of burnout and teachers who are work engaged were significant ( $t(77) = 3.526$ ;  $p=.001$ ). Hence, it can be concluded that the second sub-question (Do elementary



teachers who are work engaged experience less workload than elementary teachers with higher levels of burnout?) can be answered with a yes.

The results of the independent t-test for work satisfaction also showed a significant difference between the teachers with higher levels of burnout and the work engaged teachers ( $t(77) = -8.001$ ;  $p < .001$ ). Therefore the third sub-question (Are elementary teachers which are work engaged more satisfied with their job than elementary teachers with higher levels of burnout?) can be confirmed.

Table 3 shows that the mean score of the work engaged teachers for the question about their work performance 9.56 was. Since the range for this questionnaire was from one up to eleven, this score was high for the group of engaged teachers. Even though the teachers with higher levels of burnout also had a high mean score by work performance (7.925) the differences between the two groups was significant ( $t(77) = -5.074$ ;  $p < .001$ ). Sub-question four (Do elementary teachers who are work engaged have a better work performance than the elementary teachers with higher levels of burnout?) can therefore also be positively answered.

Table 3. Results independent t-test

	<u>Higher levels of Burnout</u> Mean (SD)	<u>Higher levels of Work engagement</u> Mean (SD)	t (df)	P
Workload	3.11 (0.42)	2.82 (0.34)	3.526 (77)	.001
Work satisfaction	3.40 (0.67)	4.51 (0,56)	-8.011 (77)	< .001
Work performance	7.93 (1.87)	9.56 (0.79)	-5.074 (77)	< .001

The high standard deviation for the variable sickness absence was a cue that this data was not normally distributed. If the data were not normally distributed it wouldn't fulfill the assumptions of an independent t-test. Results of a conducted Shapiro-Wilk test of normality confirmed that the data for sickness absence was truly not normally distributed ( $p < .001$ ). An independent t-test could hence not be used to analyze the differences. Instead a Mann Whitney U test was used to determine whether the two groups differ or not.

The results of the Mann Whitney U test for the variable sickness absence showed that the two groups did not differ significantly. Though the mean scores of the two groups differed, the differences between the teachers with higher levels of burnout and the work engaged teachers were not significant ( $Z = -1.594$ ;  $p = .111$ ). Statistically, teachers with higher levels of burnout were not more often absent at work because of sickness. The first sub-question (Do elementary teachers who are work engaged have a lower absence rate due to sickness than elementary teachers with higher levels of burnout?) had hence been answered with a no.

## 5. Discussion

The aim of this study was to examine differences between teachers who are work engaged and teachers suffering from burnout. Knowing these differences makes it easier to improve the situation of the teachers. By improving the situation of the teachers, regarding burnout, the student's situation shall also be improved since the teaching quality suffers from the burnout.

Results of the analyses in this study showed that teachers with higher levels of burnout significantly differed from the work engaged teachers regarding workload, work satisfaction and work performance. The two groups of teachers did, however, not differ significantly in the number of absence days at work due to sickness. The assertion from Armstrong (1979) that a symptom of people with burnout is to have a high rate of absence days could hence not be confirmed in this study. Together the results showed that work engaged teachers experience less workload than teachers with higher levels of burnout. Furthermore did all the results combined show that work engaged teachers are more satisfied with their job than teachers with higher levels of burnout. This connects with the findings of Kahill (1988) as well as with the assertion of Bakker et al (2008). Kahill (1988) stated that qualitative data showed that burn out correlates with negative attitudes towards work. Bakker et al (2008) added that work engaged workers have great enthusiasm for their job. This study also showed that work engaged teachers report a higher work performance compared to teachers with a higher level of burnout.

Therefore the research question "Do elementary teachers with higher levels burnout differ from the elementary teachers who are work engaged with respect to work related characteristics?" can be confirmed. Elementary teachers with higher levels of burnout do differ from teachers who are work engaged with respect to work related characteristics. These characteristics are workload, work satisfaction and work performance. Hence, could the sub questions regarding these variables also be confirmed. Only the sub question regarding sickness absence could not be positively answered.

The results deemed remarkable were that the two groups of teachers did not significantly differ in the days they were absent due to sickness in the last twelve month. Even though the difference was not significant, there was a noticeable variation in the average amount of days the teachers were absent. While the teachers with higher levels of burnout were absent due to

sickness with a mean of 14.8 days, teachers who scored high on work engagement were absent with a mean of 4.5 days. This might be explained by the wide variances of the absent days. The amount of absent days varied from no absent day to 270 absent days in the last twelve month. That showed that some people with burnout do have a high rate of absence days supporting the findings of Armstrong (1979).

An explanation why this could only be seen in some of the participants and not in the whole group of teachers with higher levels of burnout might be that the participants in the groups of teachers with higher levels of burnout are not really burned out but rather are just having an increased risk to develop a burnout. The results from the UBOS showed that the participants scored low on burnout. This indicates that the teachers who participated in the study are not burned out. Teachers who have a burnout would probably not participate in the study because they don't want to since the participation to the study was voluntary and according to Kahill (1988) people with burnout have a negative attitude against almost everything. It can be assumed that the really burned out teachers were in the groups of participant who didn't fill out the survey. In order to avoid this loss of the real burned out teachers, future surveys like this have to be mandatory for all employees.

It is also important to mention that this study used own cut of scores to divide the participants in the two different groups. The cut off scores were composed of the calculated mean scores of this study, aggregated with one standard deviation. Results would most likely differ if another cut score would have been used for both the UBOS and the UWES. For the UWES another cut off score with norm scorers of the UWES could be made (Schaufeli & Bakker, 2004<sub>a</sub>). This cut off score would be above a score of 4.91. Since official norm scores have not been done for the UBOS a cut off score which was equally made for both questionnaires was set up. In this study the used cut off score for the UWES was above 5.5459 and for the UBOS the used cut off score was above 2.195. Therefore it is necessary to keep in mind that the two groups in this study differ significantly on the variables workload, work satisfaction and work performance based on the cut off scores used in this study.

A strong aspect of this study is that it focused only on teachers and not on other professions, since investigators found that the highest prevalence rate of burnout is among teachers (Weber & Jaekel- Reinhard, 2000). It was therefore important to just focus on the

teachers, instead of investigating the differences between people with higher levels of burnout and those who are work engaged in general. However, it would have been better if it was known which school subject they taught, since investigators found out that teachers teaching physical education have a lower risk to develop burnout (DePaepe, French and Lavay, 1985). Therefore it would have been interesting how many of the teachers in the study teach physical education.

Several investigators are uncertain about whether burnout and work engagement are the direct opposites of each other or rather related but separated constructs. While Hutell and Gustausson (2010) see burnout as the opposite of work engagement, Schaufeli and Bakker (2003) see burnout and work engagement as related but separate constructs. The results of this study strengthened the view of the investigators who think burnout and work engagement are related but separated constructs. The results in this study showed that burnout and work engagement are negatively related with each other but separate constructs. The strong correlation of  $-.654$  made this clear. It showed that the two constructs are strongly related to each other. The fact that the correlation was strongly negative showed that they are separate constructs. In order to be anti-poles to each other however, the correlation was not strong enough.

Bearing in mind that some researchers found slightly higher scores for women for the UWES it has to be mentioned that this could have had influence on this study since more than 80% of all the participants were female (Schaufeli, Bakker & Salanova, 2006). This high amount of female participants could have been a reason for the high score on the UWES in this study. With an average score of 4.7 the participants scored mainly high on this questionnaire. That meant that participant in this study had the propensity towards work engagement. With a sample where the distribution of men and women would be more equal the scores of the UWES would perhaps be lower. Since investigators also found out that the difference wasn't large it was not expected to have a big influence (Schaufeli, Bakker & Salanova, 2006).

Future studies could do different additional research on these study results. This study could not make it clear whether burnout is a cause or a consequence of the variables. This study only showed that teachers with higher levels of burnout are less satisfied and have a poorer work performance compared to work engaged teachers. Furthermore, the results showed that teachers with higher levels of burnout experience more workload. However it is not clear if burnout is the cause of the poorer work performance, the diminished work satisfaction and the experienced

workload or not. Another possibility is that burnout is the reason of the low satisfaction at work, the high workload and the lower work performance. The same is true for work engagement. Through this study it can't be said whether work engagement is the consequence of a high work satisfaction or the consequence of it. Work engagement can also either be the reason for a lower experienced workload or the consequence of it. For work performance the same is true. Following studies could investigate if burnout and work engagement are the causes or the consequences for the work related variables. This could be done by a longitudinal study where participant are regularly tested during their whole working career.

For the practice however, these results show that teachers who are burned out are less satisfied. It is therefore important to find out how the satisfaction of teachers can be raised. This can be done by a survey, asking the participant what makes them satisfied at work. Once the teachers are more satisfied it also has impact on their teaching lessons and therefor indirectly impact on the students.

The results of this study showed that the teachers of the Consent foundation subjectively think that their work performance is very good. This applies for both the teachers with higher levels of burnout and the work engaged teachers. That showed that even the teachers with burnout who were less satisfied and experienced more workload than the other teachers sense that their work performance was pretty good in the last four weeks. An explanation for this might be a bias called "socially desirable bias". Participants know it is expected to perform well and therefore give themselves high scores for work performance. This study did however not show if the work performance of the teachers is really as good as they think or not. This bias could be avoided when the work performance of the teachers would be determined by other teachers and students, rather than letting teachers determine their own work performance. According to Koustelios and Tsigilis (2005) students suffer from the poorer teaching qualities of burned out teachers and therefore students have the ability to determine over their teachers work performance.

The analysis of the data suggests that burnout can be more easily predicted than work engagement. This could be especially seen with the correlations in table 2. Burnout correlated stronger to all of the variables compared to work engagement. The correlation between burnout and the variables sickness absence, workload, work satisfaction and work performance ranged

from weak correlation up to good correlations. Between work engagement and the four variables the correlations were weak correlations instead. Also there were more significant correlations between the variables and burnout than between the variables and work engagement. For the practice this means it would be better if researchers would also keep the focus on burnout rather than on work engagement alone. Since it is more easily predicted it has to be further investigated. At least researchers should focus on burnout and work engagement and not only on the positive complement of burnout even though positive psychology is becoming more popular and researchers nowadays focus more on the positive aspects.

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