



A STUDY OF TURKISH HIGH SCHOOL STUDENTS' BURNOUT AND PROFICIENCY LEVELS IN RELATION TO THEIR SEX

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Abstract: The present study examines high school students' burnout levels. The main aims of the study are to investigate whether their burnout levels vary according to gender and grade levels, and to check the correlation between overall burnout levels and their English language proficiency attained with a specific test. The study followed a quantitative research design, the data of which were collected via a questionnaire. The participants of the study were 10th, 11th and 12th grade students (n=62). The findings indicated an increase in students' burnout levels. Emotional exhaustion levels are particularly high across all grades. Regarding the impact of sex and grade levels, 12th grade male students have the highest burnout and depersonalization rate while 10th grade female students have a decrease in their professional efficacy levels. Finally, no correlation was found between students' overall burnout and English language proficiency levels.

Keywords: Burnout, language proficiency, sex, emotion, depersonalization

Özet: Bu çalışma lise öğrencilerinin tükenmişlik seviyelerini incelemektedir. Çalışmanın temel amacı özel bir sınav ile elde edilen İngilizce yeterlik seviyesi ile genel tükenmişlik seviyesi arasındaki ilişkinin incelenmesinin yanı sıra öğrencilerin tükenmişlik seviyelerinin cinsiyet ve sınıf bazında değişiklik gösterip göstermediğini araştırmaktır. Nicel araştırma yönteminin kullanıldığı bu çalışmada gerekli veriler anket aracılığı ile toplanmıştır. Çalışma katılımcılarını 10, 11 ve 12. sınıf öğrencileri oluşturmaktadır (n=62). Bulgular öğrencilerin genel tükenmişlik seviyelerinde artış olduğunu göstermektedir. Tüm sınıflarda tükenmişlik alt faktörü en yüksek seviyededir. Cinsiyet ve sınıf düzeyinin etkisine ilişkin genel tükenmişlik ve duyarsızlaşma seviyesinin 12. sınıf erkek öğrenciler arasında en yüksek seviyede olduğu, 10. sınıf kız öğrencilerinin ise yetkinlik alt faktörüne ilişkin seviyelerinde düşüş olduğu belirlenmiştir. Son olarak, öğrencilerin genel tükenmişlik ve İngilizce yeterlilik seviyeleri arasında herhangi bir ilişki bulunmamıştır.

Anahtar sözcükler: Tükenmişlik, dil yeterliliği, cinsiyet, duygu, duyarsızlaşma

1. Introduction

Adolescence is a critical and problematic period during which many physical, personal, sexual, social and emotional changes occur. In this respect, problems like burnout may be very common in adolescents. Maslach and Jackson (1981) define the term burnout as a physical as well as a mental syndrome involving physical tiredness, long-term exhaustion, and feeling helpless and desperate while showing negative attitudes towards work, life and people. Alpay and Eryılmaz (2011) argue that burnout is a syndrome caused by the excessive demands of school and education. According to Çapulcuoğlu and Gündüz (2013), factors that increase students' burnout levels are a heavy course load, problems related with friends and society, parental attitudes, exam anxiety and fear of failure. Moreover, Gauché (2006) explores student burnout among South-African students and finds that higher levels of burnout may even result in student drop out. When the sub-dimensions of the Maslach Burnout Inventory-Student Survey (MBI-SS) are taken into consideration, school-related exhaustion simply refers to school-related tiredness due mainly to schoolwork. School-related depersonalization specifically indicates a lack of interest and achievement in academic studies (Schaufeli, Martinez, Pinto, Salanova & Bakker, 2002).

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When the related literature produced in Turkey is examined, it can be realized that burnout studies focus on university level students (e.g. Küçüksüleymanoğlu & Onuray-Eğilmez, 2013; Gündüz, Çapri & Gökçekan, 2012; Balkıs, Duru, Buluş & Duru, 2011). Küçüksüleymanoğlu and Onuray-Eğilmez (2013) study prospective music teachers' burnout levels and their findings indicate that a heavier course load results in higher level of burnout. Gündüz et al. (2012) found sex differences in regards to students' burnout levels, similar to Balkıs et al. (2011) who found significant similarities in prospective teachers' burnout levels.

Previous research has shed light on the relation between burnout and academic achievement (Kutsal & Bilge, 2012; Salmela-Aro, Kiuru, Leskinen & Nurmi, 2009; Yang, 2004; Schaufeli et al., 2002). Kutsal and Bilge (2012) articulated that "students who perceived themselves as moderately successful experienced higher burnout than those who perceived themselves as highly successful" (p. 283). Salmela-Aro et al. (2009) found a negative correlation between academic achievement and burnout and concluded that students who have a low academic achievement report an increase in depersonalization and inadequacy. Yang's (2004) exploration of the factors influencing student burnout among technical-vocational college students revealed that student burnout can negatively impact their academic achievement. Similarly, Schaufeli et al. (2002) found such a relationship between academic performance and burnout levels of the participants, irrespective of their nationalities.

The importance of the current study lies essentially in gaining a deeper understanding of the relationship between burnout and the English language proficiency levels of high school students. As such, the following research questions were formulated:

1. Do sex and grade level influence high school students' burnout levels?
2. What is the relationship between students' burnout levels and their proficiency in English language?

2. Method

2.1. Participants

The participants were 62 students attending Anatolian high schools in Sakarya, 24 (39%) of whom were males and 38 (61%) of them were females. Their ages ranged between 15 and 18 (M=16.5). Out of 62 students, 28 (45%) of them were 10th graders, 18 (29%) of them were 11th graders, and 16 (26%) of them were 12th graders. All the students were enrolled in their school's foreign language education departments.

2.2. Instrument

The present study uses the Turkish version of MBI-SS originally developed by Schaufeli et al. (2002) and which was applied to a Turkish context by Çapri, Gündüz and Gökçekan (2011). As a quantitative self-report questionnaire, the Turkish version of MBI-SS consists of 13 items to examine learners' burnout levels in three logical areas: emotional exhaustion, depersonalization and professional efficacy. MBI-SS is a five point Likert-scale questionnaire. For the present study, low mean scores indicate an increase in the overall burnout, emotional exhaustion and depersonalization levels, yet it means a decrease in the professional efficacy sub-factor. The Quick Placement Test (QPT), developed by University of Cambridge, Local Examination Syndicate, was used to measure the English language proficiency levels of the respondents. The QPT consisted of 60 multiple-choice questions with two parts, the first part included 40 questions, while there were 20 questions in the second part.

2.3. Procedures

As a quantitative study in nature, the data for the present study was collected in two phases. First, a pre-test was applied to the participants in the beginning of the 2013-2014 academic year. Both MBI-SS and QPT were used to collect data. After a 10-week interval, a delayed post-test was applied with the same materials to the same participants. Official permission to collect the data was obtained from the Ministry of National Education in Adapazarı town. The participants were required to answer the QPT questions within around 45 minutes, then they completed the questionnaire.

SPSS version 20 was utilized to analyze the responses for each research question. First, the descriptive statistics were discovered, and then a 3-factor mixed effects ANOVA was used to answer the first research question. After that, a Pearson correlation was used to examine the second research question.

3. Results

The findings which were attained from the questionnaire are noted. Table 1 presents the descriptive statistics for burnout in two testing periods (i.e., pretest and posttest).

Table 1
Descriptive Statistics for Burnout Levels

	Pretest			Posttest	
	N	M	SD	M	SD
Overall Burnout	62	3.24	.68	3.03	.71
Emotional Exhaustion	62	2.84	.92	2.61	.86
Depersonalization	62	3.50	.84	3.19	.89
Professional Efficacy	62	3.48	.70	3.38	.78

Table 1 reports the descriptive statistics for the level of burnout both in pre-test and post-test. First, the mean score for the overall burnout level in the pre-test was 3.24 (SD=.68); whereas, it was 3.03 (SD=.71) in the post-test. For the emotional exhaustion sub-factor, the mean score in the pre-test was 2.84 (SD=.92), yet it was 2.61 (SD=.86) for the post-test. With respect to the depersonalization sub-factor, the mean score for the pre-test was 3.50 (SD=.84), but it was 3.19 (SD=.89) for the post-test. Last, the mean score for the pre-test of professional efficacy sub-factor was 3.48 (SD=.70), yet it was 3.38 (SD=.78) for the post-test.

The first research question aimed to examine the burnout level of the students with respect to gender and grade level. Tables 2 and 3 show the descriptive statistics for pretest burnout levels by gender and grade level respectively. To reveal whether the differences in the pretest burnout levels were significant, an independent-samples t-test for gender and a one-way ANOVA for grade level were performed. First, t-test results showed no statistically significant gender differences in the overall burnout, emotional exhaustion, depersonalization and professional efficacy levels: $t(60)=.457$, $p>.05$; $t(60)=.358$, $p>.05$; $t(60)=.262$, $p>.05$; $t(60)=.552$, $p>.05$ respectively. One-way ANOVA results indicated no significant grade level differences in the overall burnout, emotional exhaustion, depersonalization and professional efficacy levels: $F(2,59)=.665$, $p>.05$; $F(2,59)=.478$, $p>.05$; $F(2,59)=.1032$, $p>.05$; $F(2,59)=.685$, $p>.05$ respectively.

Table 2
Means and standard deviations by gender in pretest

	Gender	N	M	SD
Overall burnout	Male	24	3.29	.64
	Female	38	3.21	.71
Emotional Exhaustion	Male	24	2.89	.82
	Female	38	2.81	.98
Depersonalization	Male	24	3.53	.84
	Female	38	3.47	.85
Professional Efficacy	Male	24	3.54	.82
	Female	38	3.44	.62

Table 3
Means and standard deviations by grade level in pretest

	Grade Level	N	M	SD
Overall burnout	10	28	3.20	.70
	11	18	3.15	.77
	12	16	3.40	.57
Emotional Exhaustion	10	28	2.84	.90
	11	18	2.69	1.06
	12	16	3.00	.80
Depersonalization	10	28	3.49	.82
	11	18	3.31	.89
	12	16	3.72	.80
Professional Efficacy	10	28	3.37	.64
	11	18	3.56	.82
	12	16	3.59	.66

A three-factor mixed effects ANOVA examining the effects of test-time, test-type, gender and grade on burnout levels of the participants found a statistically significant relationship ($F(1,56) = 5.589, p = .022$). Pairwise comparisons for the test-time indicated that the level of burnout in the post-test was significantly higher than the level of burnout in the pre-test (3.06 vs 3.28) ($p = .022$). In addition, there was a significant main effect of test-type on the burnout levels of the students ($F(3,168) = 43.727, p = .000$). Pairwise comparisons revealed that the mean score for emotional exhaustion was significantly lower than overall burnout (2.74 vs 3.15), depersonalization (2.74 vs 3.32) and professional efficacy scores (2.74 vs 3.48) ($p = .000$). However, the overall burnout mean score was significantly lower than both depersonalization (3.15 vs 3.32) and professional efficacy means (3.15 vs 3.48) ($p = .000$). Thus, of all the three sub-factors, the emotional exhaustion level of the participants was the highest.

There was a significant interaction effect between test-type and grade on the burnout level ($F(6, 168) = 2.811, p = .012$). The pairwise Bonferroni comparisons showed that 10th grade students' overall burnout level was significantly higher than their depersonalization level (3.11 vs 3.40) ($p = .000$), and their emotional exhaustion level was higher than overall burnout (2.77 vs 3.11) ($p = .000$), depersonalization (2.77 vs 3.40) ($p = .000$) and professional efficacy levels (2.77 vs 3.24) ($p = .008$). 11th graders' mean score for professional efficacy was higher than both overall burnout (3.55 vs 3.06) ($p = .000$) and depersonalization means (3.55 vs 3.11) ($p = .050$), their emotional exhaustion level was higher than overall burnout (2.62 vs 3.06) ($p = .000$), depersonalization (2.62 vs 3.02) ($p = .001$) and professional efficacy levels (2.62 vs

3.55) ($p=.000$). Regarding the 12th graders, emotional exhaustion level was significantly higher than overall burnout (2.82 vs 3.27) ($p=.000$), depersonalization (2.82 vs 3.45) ($p=.000$) and professional efficacy levels (2.82 vs 3.66) ($p=.000$). In addition, the mean score for overall burnout was lower than the mean score for the professional efficacy sub-factor (3.27 vs 3.66) ($p=.006$). In brief, emotional exhaustion level was the highest sub-factor for all grades.

The three-way test-type, gender and grade level interaction was statistically significant ($F(6, 168) = 3.141, p=.006$). The paired-samples t-test was used to identify where the significant differences lay, and table 4 demonstrates descriptive statistics for burnout over two testing periods (i.e., pretest and posttest) according to gender and grade level. There was a significant difference between the overall burnout level of 12th grade males from the pre-test to post-test ($t(6)=2.763, p=.033$); the difference between the depersonalization level of 12th grade males from pre-test to post-test was also significant ($t(6)=4.215, p=.006$). There was a statistically significant difference between 10th grade females' professional efficacy levels in the pre-test and post-test ($t(17)= 2.356, p=.031$). No further main or interaction effects were found.

Table 4

Means and standard deviations for burnout by gender and grade level

	Gender	Grade level	N	Pretest		Posttest	
				M	SD	M	SD
Overall burnout	Male	10	10	3.03	.80	3.10	.98
		11	7	3.27	.34	3.01	.91
		12	7	3.67	.48	3.05	.49
	Female	10	18	3.30	.63	3.00	.66
		11	11	3.06	.96	2.89	.82
		12	9	3.20	.57	3.16	.34
Emotional Exhaustion	Male	10	10	2.88	.83	2.84	1.09
		11	7	2.69	.70	2.63	1.05
		12	7	3.11	.97	2.51	.78
	Female	10	18	2.82	.96	2.53	.83
		11	11	2.69	1.28	2.49	.97
		12	9	2.91	.69	2.73	.49
Depersonalization	Male	10	10	3.20	.96	3.38	1.11
		11	7	3.32	.47	2.75	1.15
		12	7	4.21	.59	3.14	.80
	Female	10	18	3.65	.72	3.38	.94
		11	11	3.30	1.10	3.09	.70
		12	9	3.33	.75	3.11	.63
Professional Efficacy	Male	10	10	3.05	.84	3.15	.95
		11	7	3.96	.64	3.75	.92
		12	7	3.82	.64	3.64	.40
	Female	10	18	3.54	.42	3.21	.59
		11	11	3.30	.85	3.18	1.05
		12	9	3.42	.65	3.75	.45

The second research question aimed to investigate the correlation between burnout and language proficiency. Notably, the average score among the participants on the English language proficiency test was 28.31 ($SD=7.27$) in the pre-test. The highest scoring participant obtained 45 and the lowest scoring obtained 13 (maximum score possible=60). There was no

significant correlation between the respondents' proficiency test scores and their overall burnout level in the pre-test ($r(60) = -.101, p = .436$). As for the post-test, the mean score for the English proficiency test was 30.34 ($SD = 7.18$), the highest scoring participant scored 47; whereas, the lowest participant obtained 15 (maximum score possible = 60). The correlation between the proficiency test scores and overall burnout level of the participants in the post-test was found not to be statistically significant ($r(60) = -.033, p = .800$).

4. Discussion

The results of this study suggest that the students' burnout level increases as time passes, and the influence of gender and grade level on this issue was fairly observed. Simply put, 12th grade males' overall burnout and depersonalization levels increase from pre-test to post-test, yet 10th grade females' professional efficacy decrease from pre-test to post-test.

Similarly, Parker and Salmela-Aro (2011) investigated the development of burnout among Finnish students and the findings indicated that school burnout is fairly to strongly consistent over time. In addition, a recent research project by Salmela-Aro and Tynkkynen (2012) examined school burnout among adolescents in relation to gender and type of school. The authors reported that the level of exhaustion, depersonalization and inadequacy increased among boys in academic schools whereas no change was observed for those in vocational schools. In regards to girls, an increase in school burnout and inadequacy was observed for those in academic schools, yet depersonalization decreased among the girls in vocational schools. Notably, a study by Çapulcuoğlu and Gündüz (2013) noted significant differences in burnout levels of high school students with respect to their grade level, so prep class students indicated higher levels of exhaustion. 9th grade students showed higher levels of depersonalization, but 10th grade students had higher levels of professional efficacy. In a similar fashion, Kutsal and Bilge (2012) examined the burnout levels of high school students and reported an increase in students' burnout levels as they progress from grade to grade.

With respect to sex, research results have reached mixed findings. Erturgut and Soyşekerci (2010) found significant sex differences regarding burnout: females had higher levels of emotional exhaustion whereas males had higher levels of depersonalization. Gündüz et al. (2012) revealed significant sex differences regarding burnout; female students' exhaustion levels were higher than the males whereas male students reported higher levels of depersonalization and lower levels of professional efficacy. In the same vein as Gündüz et al. (2012)'s study, Çapulcuoğlu and Gündüz (2013) examined high school students' burnout levels and the authors found significant sex differences. That is, male students' level of exhaustion was higher than females'; whereas, female students' level of professional efficacy was lower than the males. Finally yet importantly, Yang and Farn (2005) investigated student burnout among technical-vocational college students and the study indicated that sex-role as a psychological gender difference has a crucial impact on student burnout.

As aforementioned, the mean score for emotional exhaustion in this study was the lowest for all grades meaning the participants' exhaustion level was higher than their depersonalization and professional efficacy levels regardless of sex and grade level. In a similar vein, Erturgut and Soyşekerci (2010) investigated burnout among vocational school students in local context and the findings revealed that burnout was generally recognized as emotional exhaustion. In a study by Yedigöz-Sönmez and Çapri (2013), it was suggested that a stress coping program may reduce the level of exhaustion among high school students.

As indicated earlier, there was no correlation between overall burnout and English language proficiency. However, Kiuru, Aunola, Nurmi, Leskinen and Salmela-Aro, (2008) reported the link between academic achievement and school burnout; that is, the lower the academic achievement, the higher the school burnout. Further, Balkis et al. (2011) claimed that burnout negatively correlated with the academic achievement of the prospective teachers. Similarly, Çapulcuoğlu and Gündüz (2013) examined the relation between burnout levels and the perceived achievement levels of high school students. The study indicated that the students who perceived lower levels of achievement showed higher levels of exhaustion than the students who perceived moderate or high levels of achievement.

Arguably, anxiety related to university entrance exams may be one of the reasons why an increase in the overall burnout levels of male 12th grade students was observed in this study. Specifically, the grade level may be the reason why there was a decrease in the professional efficacy level of the female 10th grade students. The 10th grade is the first year of study at the foreign language departments of these high schools. As such, the students begin intense language courses. Notably, emotional exhaustion levels of the students were the highest throughout all grades, and the heavy course schedule and school achievement may be the reasons for it. School authorities and counselors should help the students to reduce their exhaustion levels, which should affect their achievement positively.

5. Conclusion

The major aim of this study was to investigate the influence of sex and grade level on high school students' levels of burnout, and whether there was a relationship between the level of burnout and English language proficiency. The findings of the study signified that the levels of burnout increased from pre-test to post-test. Further, male 12th grade students' overall burnout and depersonalization increased from pre-test to post-test, but female 10th grade students' professional efficacy decreased. Finally yet importantly, there was no statistically significant relationship between the participants' levels of burnout and English language proficiency. To summarize, it can be claimed that even if the learners' level of burnout increase as time passes, it does not influence their level of proficiency negatively; however, sex and grade level cause an increase in the burnout level of the students.

This study has some theoretical and pedagogical implications. From a theoretical standpoint, this study did not indicate any significant correlation between burnout and proficiency due mainly to the proficiency increase among students being only slight. Therefore, providing a considerable increase in proficiency level may help to reduce the overall burnout level among adolescents. From a pedagogical standpoint, it may be suggested that success stories should be presented in order to avoid emotional exhaustion and depersonalization among students. For instance, an interview with a successful graduate student of the school may be organized, or a life history of a marginal person may be presented. Through such methods, students' motivation may increase which may decrease the level of burnout subsequently.

It is quite noteworthy to reveal that there is an increase in overall burnout and depersonalization level of 12th grade students, and these results invite further exploration into the reasons behind this issue. Thus, a logical next step would be to specifically investigate the matter of burnout among 12th grade students, considering factors such as exam anxiety. Schaufeli (2003) postulates that because MBI is predominantly preferred as a measurement tool, the concept of burnout has been limited to three dimensions named emotional exhaustion, depersonalization and professional efficacy. Consequently, the matter of burnout may well be investigated by using other instruments which can focus on the issue from a

different perspective. Third, a further longitudinal study may center on the possible relation between burnout and language proficiency. Güven (2013) is of the view that individual differences may not have much influence on burnout whereas some certain personality characteristics such as low self-esteem, competitiveness may well have an impact on high burnout level. Therefore, another dimension which may further inform the body of knowledge on burnout would be to investigate the possible relation between personality characteristics and the burnout levels of individuals.

References

- Alpay, A., & Eryılmaz, A. (2011). Lise öğrencilerinin derse katılmaya motive olmaları ile okul tükenmişliği arasındaki ilişkinin incelenmesi. [Investigation of the relationship between high school students' motivation to class engagement and school burnout]. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi*, 21, 26-44.
- Balkıs, M., Duru, E., Buluş, M., & Duru, S. (2011). Tükenmişliğin öğretmen adayları arasındaki yaygınlığı, demografik değişkenler ve akademik başarı ile ilişkisi. [The prevalence of burnout among prospective teachers, its relation with demographic variables and academic achievement]. *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi*, 29(1), 151-165.
- Çapri, B., Gündüz, B., & Gökçekan, Z. (2011). Maslach tükenmişlik envanteri-öğrenci formunun (MTE-ÖF) Türkçe'ye uyarlanması: Geçerlilik ve güvenilirlik çalışması. [Adapting maslach burnout inventory-student survey (MBI-SS) into Turkish: A validity and reliability study]. *Çukurova Üniversitesi Eğitim Fakültesi Dergisi*, 1(40), 134-147.
- Çapulcuoğlu, U., & Gündüz, B. (2013). Lise öğrencilerinde tükenmişliğin cinsiyet, sınıf düzeyi, okul türü ve algılanan akademik başarı değişkenlerine göre incelenmesi. [Investigation of burnout of high school students according to gender, grade level, school type and perceived academic achievement level]. *Trakya Üniversitesi Eğitim Fakültesi Dergisi*, 3(1), 12-24.
- Erturgut, R., & Soyşekerçi, S. (2010). An empirical analysis on burnout levels among second year vocational schools students. *Procedia Social and Behavioral Sciences*, 2, 1399-1404.
- Gauché, C. (2006). *Burnout and engagement in a South African university student sample: A psychometric analysis* (master's thesis). Retrieved from <http://hdl.handle.net/10394/1077>
- Gündüz, B., Çapri, B., & Gökçekan, Z. (2012). Üniversite öğrencilerinin tükenmişlik düzeylerinin incelenmesi. [Examining of the burnout level of university students]. *Dicle Üniversitesi Ziya Gökalp Eğitim Fakültesi Dergisi*, 19, 38-55.
- Güven, G. (2013). *A study on examining the burnout levels of Turkish EFL teachers working at two state universities in Ankara* (Unpublished master's thesis). Ufuk University, Institute of Social Sciences, Ankara.
- Kayabaşı, Y. (2008). Bazı değişkenler açısından öğretmenlerin mesleki tükenmişlik düzeyleri. [The level of burnout of teachers]. *Sosyal Bilimler Dergisi*, 20, 191-212.
- Kiuru, N., Aunola, K., Nurmi, J-E., Leskinen, E., & Salmela-Aro, K. (2008). Peer group influence and selection in adolescents' school burnout: A longitudinal study. *Merrill-Palmer Quarterly*, 54(1), 23-55.
- Kutsal, D., & Bilge, F. (2012). Adaptation of Maslach burnout inventory-student survey: Validity and reliability study. *World Applied Sciences Journal*, 19(9), 1360-1366.
- Küçüksüleymanoğlu, R., & Onuray-Eğilmez, H. (2013). Müzik öğretmeni adaylarının tükenmişlik düzeyleri: Uludağ üniversitesi örneği. [Burn-out in music teacher trainees:

- The model of uludağ university]. *International Journal of Social Science*, 6(3), 905-923.
- Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behaviour*, 2(2), 99-113.
- Parker, P. D., & Salmela-Aro, K. (2011). Developmental process in school burnout: A comparison of major developmental models. *Learning and Individual Differences*, 21, 244-248.
- Salmela-Aro, K., Savolainen, H., & Holopainen, L. (2008). Depressive symptoms and school burnout during adolescence evidence from two cross-lagged longitudinal studies. *Journal of Youth Adolescence*. Advance online publication. doi: 10.1007/s10964-008-9334-3.
- Salmela-Aro, K., Kiuru, N., Leskinen, E., & Nurmi, J-E. (2009). School-burnout inventory (SBI): Reliability and validity. *European Journal of Psychological Assessment*, 25(1), 48-57.
- Salmela-Aro, K., & Tynkkynen, L. (2012). Gendered pathways in school burnout among adolescents. *Journal of Adolescence*, 35, 929-939.
- Schaufeli, W.B., Martinez, I., Pinto, A.M., Salanova, M., & Bakker, A. (2002). Burnout and engagement in university students: A cross-national study. *Journal of Cross-Cultural Psychology*, 33, 464-481.
- Schaufeli, W. B. (2003). Past performance and future perspectives of burnout research. *Journal of Industrial Psychology*, 29(4), 1-15.
- Yang, H-J. (2004). Factors affecting student burnout and academic achievement in multiple enrolment programs in Taiwan's technical-vocational colleges. *International Journal of Educational Development*, 24, 283-301.
- Yang, H-J., & Farn, C. K. (2005). An investigation the factors affecting MIS student burnout in technical-vocational college. *Computers in Human Behavior*, 21, 917-932.
- Yedigöz-Sönmez, G., & Çapri, B. (2013). The effect of stress coping program on burnout levels of high school students. *International Journal on New Trends in Education and Their Implications*, 4(3), 148-164.