


[Home](#) > [Journal](#) > [Social Sciences & Humanities](#) > [PSYCH](#)
[Indexing](#) | [View Papers](#) | [Aims & Scope](#) | [Editorial Board](#) | [Guideline](#) | [Article Processing Charges](#)
[PSYCH](#) > Vol.4 No.1, January 2013



## Validity and Reliability of the Socio-Contextual Teacher Burnout Inventory (STBI)

PDF (Size: 287KB) PP. 73-82 DOI: 10.4236/psych.2013.41010

### Author(s)

Janne Pietarinen, Kirsi Pyhältö, Tiina Soini, Katariina Salmela-Aro

### ABSTRACT

Recent research on teacher burnout has advanced our understanding of its dimensions and contributing factors. However, the complexity and dynamics of the social working environments in schools has often been neglected in teacher burnout studies, and hence a valid and reliable context-sensitive instrument for studying teacher burnout in terms of social interaction in schools is needed. This study examined the development of the Socio-Contextual Teacher Burnout Inventory (STBI), its validity as well as reliability, among Finnish teachers (n = 2310). The validity and reliability of the items composing the STBI were determined based on the confirmatory factor analysis. The results showed that the correlated three-factor solution and second-order-factor solution fitted the data. More specifically, teacher exhaustion, cynicism towards the teacher community and inadequacy in the pupil-teacher relationship were found to be closely related but separate constructs. The results also supported the main hypothesis that teacher burnout can be examined in terms of interpersonal problems in an individual's transactions with others in the workplace. Therefore the sources of teacher burnout may vary not only between schools but also between the social working contexts within a single school. The instrument introduced in this study is a potentially useful tool for exploring interpersonal teacher burnout.

### KEYWORDS

Teacher Burnout Inventory; Occupational Well-Being; School; Social Working Contexts; Confirmatory Factor Analysis; Construct Validity

### Cite this paper

Pietarinen, J. , Pyhältö, K. , Soini, T. & Salmela-Aro, K. (2013). Validity and Reliability of the Socio-Contextual Teacher Burnout Inventory (STBI). *Psychology*, 4, 73-82. doi: 10.4236/psych.2013.41010.

### References

- [1] Adams, J. (1965). Inequity in social exchange. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology* (Vol. 2, pp. 267-299). New York: Academic press.
- [2] Antoniou, A.-S., Polychroni, F., & Vlachakis, A.-N. (2006). Gender and age differences in occupational stress and professional burnout between primary and high-school teachers in Greece. *Journal of Managerial Psychology*, 21, 682-669. doi:10.1108/02683940610690213
- [3] Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2002). Validation of the maslach burnout inventory—General survey: An internet study. *Anxiety, Stress & Coping*, 15, 245-260. doi: 10.1080/1061580021000020716
- [4] Bakker, A. B., Schaufeli, W. B., Leiter, M. P., & Taris, T. W. (2008). Work engagement: An emerging concept in occupational health psychology. *Work & Stress*, 22, 187-200. doi: 10.1080/02678370802393649
- [5] Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88, 588-606. doi: 10.1037/0033-2909.88.3.588
- [6] Bollen, K. A. (1989). *Structural equations with latent variables*. New York: Wiley.

[• Open Special Issues](#)
[• Published Special Issues](#)
[• Special Issues Guideline](#)
[PSYCH Subscription](#)
[Most popular papers in PSYCH](#)
[About PSYCH News](#)
[Frequently Asked Questions](#)
[Recommend to Peers](#)
[Recommend to Library](#)
[Contact Us](#)

Downloads:	247,327
------------	---------

Visits:	543,147
---------	---------

[Sponsors >>](#)

- [7] Borg, M. G., & Riding, R. J. (1991). Towards a model for the determinants of occupational stress among schoolteachers. *European Journal of Psychology of Education*, 6, 355-373. doi:10.1007/BF03172771
- [8] Brouwers, A., & Tomic, W. (2000). A longitudinal study of teacher burnout and perceived self-efficacy in classroom management. *Teaching and Teacher Education*, 16, 239-253. doi:10.1016/S0742-051X(99)00057-8
- [9] Buunk, B., Ybema, J., Gibbons, F., & Ipenburg, M. (2001). The affective consequences of social comparison as related to professional burnout and social comparison orientation. *European Journal of Social Psychology*, 31, 337-351. doi:10.1002/ejsp.41
- [10] Buunk, B. P., & Schaufeli, W. B. (1993). Professional burnout: A perspective from social comparison theory. In W. B. Schaufeli, C. Maslach, & T. Mareks (Eds.) *Professional burnout: Recent developments in theory and research* (pp. 53-69). Washington DC: Taylor & Francis.
- [11] Byrne, B. (1993). The Maslach burnout inventory: Testing for factorial validity and invariance across elementary, intermediate and secondary teachers. *Journal of Occupational and Organizational Psychology*, 66, 197-212. doi:10.1111/j.2044-8325.1993.tb00532.x
- [12] Cano-Garcia, F. J., Padilla-Muñoz, E. M., & Carrasco-Ortiz, M. A. (2005). Personality and contextual variables in teacher burnout. *Personality and Individual Differences*, 38, 929-940. doi:10.1016/j.paid.2004.06.018
- [13] Cook, C., Heath, F., & Thompson, R. L. (2000). A meta-analysis of response rates in web or internet-based surveys. *Educational and Psychological Measurement*, 60, 821-836. doi:10.1177/00131640021970934
- [14] Devos, C., Dupriez, V., & Paquay, L. (2012). Does the social working environment predict beginning teachers' self-efficacy and feelings of depression? *Teaching and Teacher Education*, 28, 206-217. doi:10.1016/j.tate.2011.09.008
- [15] Dorman, J. P. (2003). Relationship between school and classroom environment and teacher burnout: A LISREL analysis. *Social Psychology of Education*, 6, 107-127. doi:10.1023/A:1023296126723
- [16] Elo, A-L., Leppänen, A., & Jahkola, A. (2003). Validity of a single item measure of stress symptoms. *Scandinavian Journal of Work, Environment & Health*, 29, 444-451. doi:10.5271/sjweh.752
- [17] Embich, J. L. (2001). The relationship of secondary special education teachers' roles and factors that lead to professional burnout. *Teacher Education and Special Education*, 24, 58-69. doi:10.1177/088840640102400109
- [18] Feldt, T., Leskinen, E., Kinnunen, U., & Ruoppila, I. (2003). The stability of sense of coherence: comparing two age groups over a 5-year follow-up study. *Personality and Individual Differences*, 35, 1151-1165. doi:10.1016/S0191-8869(02)00325-2
- [19] Fernet, C., Guay, F., Senécal, C., & Austin, S. (2012). Predicting intra individual changes in teacher burnout: The role of perceived school environment and motivational factors. *Teaching and Teacher Education*, 28, 514-525. doi:10.1016/j.tate.2011.11.013
- [20] Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7, 117-140. doi:10.1177/001872675400700202
- [21] Freudenberg, H. J. (1974). Staff burn-out. *Journal of Social Issues*, 30, 159-165. doi:10.1111/j.1540-4560.1974.tb00706.x
- [22] Geurts, S., Schaufeli, W., & De Jonge, J. (1998). Burnout and intention to leave among mental health-care professionals: A social psychological approach. *Journal of Social and Clinical Psychology*, 17, 341-362. doi:10.1521/jscp.1998.17.3.341
- [23] Hakanen, J., Bakker, A., & Schaufeli, W. (2006). Burnout and engagement among teachers. *Journal of School Psychology*, 43, 495-513. doi:10.1016/j.jsp.2005.11.001
- [24] Holland, R. P. (1982). Special educator burnout. *Educational Horizons*, 60, 58-64.
- [25] Hu, L., & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1-55. doi:10.1080/10705519909540118
- [26] Jepson, E., & Forrest, S. (2006). Individual contributory factors in teacher stress: The role of

achievement striving and occupational commitment. *British Journal of Educational Psychology*, 76, 183-197. doi:10.1348/000709905X37299

- [27] Kalimo, R., & Hakanen, J. (2000). Työuupumus. In T. Kauppinen, P. Heikkilä, S. Lehtinen, K. Lindström, S. Nyyh?, A. Seppälä, J. Toikkanen, & A. Tossavainen (Eds.), *Työ ja terveys Suomessa v.200*. (pp. 119-126). Helsinki: Työterveyslaitos.
- [28] Kinnunen, U., Parkatti, T., & Rasku, A. (1994). Occupational well being among aging teachers in Finland. *Scandinavian Journal of Educational Research*, 38, 315-332. doi:10.1080/0031383940380312
- [29] Klassen, R. M. (2010). Teacher stress: The mediating role of collective efficacy beliefs. *The Journal of Educational Research*, 103, 342-350. doi:10.1080/00220670903383069
- [30] Kokkinos, C. M. (2007). Job stressors, personality and burnout in primary school teachers. *British Journal of Educational Psychology*, 77, 229-243. doi:10.1348/000709905X90344
- [31] Krosnick, J. A. (1999). Survey research. *Annual Review of Psychology*, 50, 537-567. doi:10.1146/annurev.psych.50.1.537
- [32] Lau, P. S. Y., Yuen, M. T., & Chan, R. M. C. (2005). Do demographic characteristics make a difference to burnout among Hong Kong secondary school teachers? *Social Indicators Research*, 71, 491-516. doi:10.1007/s11120-005-0117-1
- [33] Lee, R., & Ashforth, B. (1996). A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of Applied Psychology*, 81, 123-133. doi:10.1037/0021-9010.81.2.123
- [34] Leiter, M., & Maslach, C. (1988). The impact of interpersonal environment on burnout and organizational commitment. *Journal of Organizational Behavior*, 9, 297-308. doi:10.1002/job.4030090402
- [35] Leung, D. Y. P., & Lee, W. W. S. (2006). Predicting intention to quit among Chinese teachers: Differential predictability of the component of burnout. *Anxiety, Stress, & Coping*, 19, 129-141. doi:10.1080/10615800600565476
- [36] Liukkonen, J., & Leskinen, E. (1999). The reliability and validity of scores from the children's version of the perception of success questionnaire. *Educational and Psychological Measurement*, 59, 651-664. doi:10.1177/00131649921970080
- [37] Loonstra, B., Brouwers, A., & Tomic, W. (2009). Feelings of existential fulfillment and burnout among secondary school teachers. *Teaching and Teacher Education*, 25, 752-757. doi:10.1016/j.tate.2009.01.002
- [38] Maslach, C. (2003). Job burnout: New directions in research and interventions. *Current Directions in Psychological Science*, 12, 189-192. doi:10.1111/1467-8721.01258
- [39] Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior*, 2, 99-113. doi:10.1002/job.4030020205
- [40] Maslach, C., & Leiter, M. P. (2005). *Banishing burnout: six strategies for improving your relationship with work*. San Francisco: Jossey Bass.
- [41] Maslach, C., Schaufeli, W., & Leiter, P. (2001). Job burnout: New directions in research and intervention. *Current Directions in Psychological Science*, 12, 189-192. doi:10.1111/1467-8721.01258
- [42] Maslach, C., & Leiter, M. (1999). Teacher burnout: A research agenda. In R. Vandenberg & A. Huberman (Eds.), *Understanding and Preventing Teacher Burnout* (pp. 295-303). Cambridge: Cambridge University Press.
- [43] Milfont, T. L., Denny, S., Ameratunga, S., Robinson, E., & Merry, S. (2008). Burnout and wellbeing: Testing the Copenhagen burnout inventory in New Zealand teachers. *Social Indicators Research*, 89, 169-177. doi:10.1007/s11205-007-9229-9
- [44] Montgomery, C., & Rupp, A. A. (2005). A meta-analysis for exploring the diverse causes and effects of stress in teachers. *Canadian Journal of Education*, 28, 458-486. doi:10.2307/4126479
- [45] Muthén, L., & Muthén, B.O. (1998–2010). *Mplus users guide* (6th ed.). Los Angeles, CA: Muthén & Muthén.
- [46] National Board of Education (2010). *Opettajat Suomessa* [Teachers in Finland]. URL (last checked 3

- [47] Peeters, M., & Rutte, C. G. (2005). Time management behavior as a moderator for the job demand-control. *Interaction Journal of Occupational Health Psychology*, 10, 64-75. doi:10.1037/1076-8998.10.1.64
- [48] Pillay, H., Goddard, R., & Wilss, L. (2005). Well-being, burnout and competence: Implications for teachers. *Australian Journal of Teacher Education*, 30, 22-33.
- [49] Pyh?lt?, K., Pietarinen, J., & Salmela-Aro, K. (2011). Teacher-working environment fit as a framework for burnout experienced by Finnish teachers. *Teaching and Teacher Education*, 27, 1101-1111. doi: 10.1016/j.tate.2011.05.006
- [50] Pyh?lt?, K., Pietarinen, J., & Soini, T. (2012). Do comprehensive school teachers perceive themselves as active agents in school reforms? *Journal of Educational Change*, 13, 95-116. doi: 10.1007/s10833-011-9171-0
- [51] Rudow, B. (1999). Stress and burnout in the teaching profession: European studies, issues, and research perspectives. In R. Vanderbergue & M. A. Huberman (Eds.), *Understanding and preventing teacher burnout: A source book of international practice and research* (pp. 38-58). Cambridge: Cambridge University Press. doi: 10.1017/CBO9780511527784.004
- [52] Salmela-Aro, K., Kiuru, N., Leskinen, E., & Nurmi, J. (2009). School burnout inventory: Reliability and validity. *European Journal of Psychological Assessment*, 25, 48-57. doi: 10.1027/1015-5759.25.1.48
- [53] Salmela-Aro, K., Rantanen, J., Hyv?nen, K., Tilleman, K., & Feldt, T. (2011). Bergen burnout inventory: Reliability and validity among Finnish and Estonian managers. *International Archives of Occupational and Environmental Health*, 84, 635-645. doi:10.1007/s00420-010-0594-3
- [54] Santavirta, N., Solovieva, S., & Theorell, T. (2007). The association between job strain and emotional exhaustion in a cohort of 1028 Finnish teachers. *British Journal of Educational Psychology*, 77, 213-228. doi: 10.1348/000709905X92045
- [55] Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25, 293-437. doi: 10.1002/job.248
- [56] Schaufeli, W. B., & Buunk, B. P. (2003). Burnout: an overview of 25 years of research in theorizing. In M. J. Winnubst, & C. L. Cooper (Eds.), *The handbook of work and health psychology* (pp. 383-425). Chichester: Wiley.
- [57] Schaufeli, W., & Enzmann, D. (1998). *The burnout companion to study and practice: A critical analysis*. London: Taylor and Francis.
- [58] Schaufeli, W., van Dierendonck, D., & van Gorp, K. (1996). Burnout and reciprocity: towards a dual-level social exchange model. *Work & Stress*, 10, 225-237. doi:10.1080/02678379608256802
- [59] Sharplin, E., O' Neill, M., & Chapman, A. (2011). Coping strategies for adaptation to new teacher appointments: Intervention for retention. *Teaching and Teacher Education*, 27, 136-146. doi: 10.1016/j.tate.2010.07.010
- [60] Skaalvik, E. M., & Skaalvik, S. (2009). Does school context matter? Relations with teacher burnout and job satisfaction. *Teaching and Teacher Education*, 25, 518-524.
- [61] Skaalvik, E. M., & Skaalvik, S. (2010). Teacher self-efficacy and teacher burnout: A study of relations. *Teaching and Teacher Education*, 26, 1059-1069. doi: 10.1016/j.tate.2008.12.006
- [62] Soini, T., Pyh?lt?, K., & Pietarinen, J. (2010). Pedagogical well-being— Reflecting learning and well-being in teachers' work. *Teaching and teachers: Theory and practice*, 16, 765-782.
- [63] Tatar, M., & Horenczyk, G. (2003). Diversity-related burnout among teachers. *Teaching and Teacher Education*, 19, 397-408. doi: 10.1016/S0742-051X(03)00024-6
- [64] Travers, C. J., & Cooper, C. L. (1993). Mental health, job satisfaction and occupational stress among UK teachers. *Work and Stress*, 7, 203-219. doi:10.1080/02678379308257062
- [65] Vermunt, J. D., & Endedijk, M. D. (2011). Patterns in teacher learning in different phases of the professional career. *Learning and Individual Differences*, 21, 294-302. doi: 10.1016/j.lindif.2010.11.019

- [66] Wolters, C. A., & Daugherty, S. G. (2007). Goal structures and teachers' sense of efficacy: Their relation and association to teaching experience and academic level. *Journal of Educational Psychology*, 99, 181-193. doi:10.1037/0022-0663.99.1.181
- [67] Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, 14, 121-141. doi:10.1037/1072-5245.14.2.121