



The school as a therapeutic community

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Abstract

Purpose - The purpose of this study was to explore the facets of Self Determination Theory and the potential relationships with teaching satisfaction in a sample of secondary school teachers ($n= 1288$). The study explored the potential of the school environment in fostering a beneficial community in which personal needs could be met and investigated potential disparities between male and female teachers.

Design/methodology/approach –The study utilised an electronic quantitative questionnaire to collect data from a representative sample. Structural equation modelling was applied and permitted an exploration of potential relationships between the facets of Self Determination Theory and teaching satisfaction, while controlling for specified covariates.

Findings – It was shown that the specified model could be effectively applied to both male and female teachers. The results demonstrate that only competence was related to teaching satisfaction in both samples.

Practical implications – Future studies should focus on factors which contribute to teachers' sense of competence within the professional role. Schools need to facilitate this need in order to promote wellbeing within the educational environment.

Originality/value – This is the first known research to explore the specified relationships and the ability of the school environment to foster wellbeing and satisfaction. It is suggested that competence is the more prominent need with regards to teaching satisfaction.

Keywords Teachers, teaching satisfaction, Self Determination theory, therapeutic community, motivation

Paper type Research paper

The school as a therapeutic environment.

Teaching can be viewed as a personally rewarding career which may serve to enhance wellbeing through interaction within the school environment (Santoro *et al.*, 2012). The teacher role is multifaceted and challenging, and may be influenced by the beliefs of the teacher, personal motivation and sense of job satisfaction (Klassen *et al.*, 2008). The application of self-determination theory has often been utilised to explain motivation, emotion and behaviour in a variety of work domains (Deci and Ryan, 2000). Esdar *et al.* (2016) consider motivation as an important factor to individual wellbeing, performance and satisfaction in educational settings. Consequently, the school setting has the potential to act as a therapeutic community in promoting positive psychological benefits for teachers.

According to Self-Determination Theory, environmental conditions which facilitate the psychological needs of autonomy, competence and relatedness are beneficial to ensuring personal development and enabling optimum wellbeing (Deci and Ryan, 2000). Deci and Ryan (2002) consider autonomy to be the perception of being in charge of one's own behaviour and competence is understood as a feeling of personal effectiveness. The psychological sense of being with others encapsulates the concept of relatedness. Consequently, the school setting can provide opportunities to satisfy these needs through mutual participation and engagement (Wagner and French, 2010). In further support, Roth (2007) noted that contextual factors have the ability to facilitate self-determined teaching motivation and contribute to satisfying the needs for autonomy, competence and relatedness. Similarly, research by Wininger and Birkholz (2013) reported that job satisfaction within the teaching role was significantly related to the fulfilment of such innate psychological needs.

Being satisfied with teaching is of paramount importance as it is recognised that teacher wellbeing and student wellbeing is interrelated (Roffey, 2012). Rots *et al.* (2012) reported that job motivation is dependent on the development of a sense of professional competence within the role. It has been documented that teaching is challenging (Hong, 2012) and Stoll *et al.* (2006) report that it is necessary for teachers to be proficient within their practice in order to meet the diverse demands of

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3 the job. Consequently, it may be necessary that teachers continually enhance their
4 professional practice whilst also remaining fully informed of changing legislation
5 which may affect their role (Polk, 2006). Continual reforms within the school sector
6 have often been considered as a contributory factor in teacher overload with the
7 evolving demands impacting teacher wellbeing (Fink, 2003).
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12 Glenville-Cleave and Boniwell (2012) reported that educational reforms may reduce
13 autonomy within the teacher role. This is potentially a cause for concern as Skaalvik
14 and Skaalvik (2014) report that autonomous teaching enhances satisfaction at work.
15 Conversely, Griva and Joeke (2003) suggest that psychological wellbeing is not
16 necessarily related to obtaining job control within the teacher role. Wilkesman and
17 Schmid (2014) also noted that the intrinsic motivation of teachers, whilst facilitated
18 by both competence and relatedness, was only partly facilitated by autonomy. It has
19 been suggested that the overarching and structured attainment culture of
20 contemporary education may offer some explanation of this finding (Brookfield,
21 2006).
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29 In order to be effective in the professional role, Timms and Brough (2013) suggest
30 that teachers often seek support through meaningful interactions with colleagues,
31 although individual variation is noted. Alhija (2015) noted that female teachers report
32 social support as more necessary in promoting a positive working environment than
33 do their male counterparts. Lui and Ramsey (2008) found that females experience
34 less overall job satisfaction than males. Related research by Guglielmi et al. (2016)
35 found that younger teachers were driven by the opportunity for collegial relationships
36 and personal development. It was further noted that having the opportunity to
37 demonstrate professional competency was more dominant in older teachers.
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44 Owen (2016) further notes that reciprocal collegial relationships may promote a
45 sense of fulfilment. Collaborative teacher working may enhance enthusiasm and
46 confidence which promotes wellbeing and satisfaction; this is made possible within
47 the school setting which fosters a beneficial community to teachers (Huppert and
48 Johnson, 2010; Vescio *et al.*, 2008). The establishment of positive peer relationships
49 contributes to teachers' capabilities by means of a providing a professional learning
50 community (PLC) (Owen, 2016). Stoll et al. (2006) suggest that PLCs foster the
51 enhancement of skills and pedagogical practice which further contribute to teachers'
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3 sense of competence. From this perspective, the PLC acts as a therapeutic tool in
4 promoting wellbeing for teachers within the school context.
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7 Despite the recognised potential barriers, the school setting has the potential to act
8 as a therapeutic community in promoting positive psychological benefits for its
9 members. Related research has recognised the therapeutic potential of the primary
10 school setting and draws attention to the concept of the school to act as a
11 therapeutic community (Macdonald and Winship, 2016). Such research introduces
12 new avenues for future research to utilise the therapeutic community ideology within
13 educational settings. With this in mind, the context of the school may provide a
14 platform for facilitating teacher wellbeing, positive functioning and the satisfaction of
15 personal needs. To date, research has not explicitly utilised this framework to
16 explore satisfaction in secondary school teachers.
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24 Furthermore, the decline in the teacher workforce at the secondary school level in
25 England (Department for Education, 2017), make this particular teacher population
26 noteworthy of further study. With this in mind, it is necessary to explore factors which
27 may foster a positive school environment in order to promote satisfaction within the
28 teaching role. As it has been shown that the innate needs as advocated by SDT are
29 applicable to the teaching domain, this theoretical framework is consequently
30 suitable for further exploration.
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36 The aim of the current study is to explore the facets of self-determination theory and
37 their relationship with teaching satisfaction. Given that satisfaction within the
38 professional role is necessary for teachers' wellbeing, professional performance and
39 student outcomes, it is necessary to illuminating factors which relate to satisfaction
40 so that future practice can be better tailored for the interests of those within the
41 school community. Furthermore, it is necessary to consider the potential gender
42 diversity that may exist when exploring the impact of psychological needs and
43 teaching satisfaction as previous research has suggested a potential gendered
44 disparity in the teaching experience.
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53 **Method**

54 *Participants*

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3 Participants were 1288 (468 males, 820 females) secondary school teachers
4 currently employed in the secondary education sector in England. Participants
5 ranged in age from 21 to 67 years ($M = 41.35$, $SD = 10.85$). Years of teaching
6 practice ranged from 0 to 43 years ($M = 13.57$, $SD = 9.86$). In order to reduce
7 sampling error, the sample was stratified by region and by Local Education Authority
8 (LEA); there are 150 Local Education Authorities which are contained within nine
9 larger regions. A 30% drop out rate was recorded.
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17 *Procedure*

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20 Emails were sent to potential participants requesting them to complete the online
21 questionnaire which encompassed demographics, the Basic Psychological Needs at
22 Work scale (Deci & Ryan, 2000) and the Teaching Satisfaction Scale (Ho & Au,
23 2006)
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29 *Measures*

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32 *Basic Psychological Needs at work Scale* (Deci and Ryan, 2000). This is a self-
33 report measure of psychological needs in the workplace consisting of 21 items which
34 are scored on a 7-point Likert scale (1 = *not at all true* to 7 = *very true*). There are
35 three subscales (autonomy, competence and relatedness). (1) Autonomy (AUT)
36 consists of 7 items, (eg. 'I am free to express my ideas and opinions on the job'). (2)
37 Competence (COM) consists of 6 items, (eg. 'People at work tell me I am good at
38 what I do'). (3) Relatedness (REL) consists of 8 items, (eg. 'I get along with people at
39 work').
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46 *Teaching Satisfaction Scale* (TSS) (Ho and Au, 2006). This is a self-report measure
47 consisting of 5 items which assess satisfaction within the teaching role. Each item is
48 scored on a 5-point Likert scale (1= *strongly disagree* to 5= *strongly agree*). Scores
49 range from 5 to 25, with higher scores reflecting higher levels of teaching
50 satisfaction. Items on this scale include, 'In most ways, being a teacher is close to
51 my ideal' and 'I am satisfied with being a teacher'.
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Analysis

Preliminary analysis was conducted in SPSS 22 to ensure the suitability of data for structural equation modelling (SEM). Descriptive statistics and Pearson product-moment correlation coefficients were analysed for all continuous variables.

The model of teaching satisfaction was specified and assessed in AMOS 22 using structural equation modelling (see figure 1). SEM is a multivariate approach which employs a confirmatory approach to data analysis; permitting testing of a specified model (Kline, 2013). Simultaneous analysis of regression coefficients, means and variances is achieved through the application of SEM. The SEM technique involves a combination of both factor analysis and path analysis.

The first stage is concerned with the measurement level. Using confirmatory factor analysis (CFA) techniques, factor loadings were determined. The fit between the collected data and the specified model was assessed using goodness-of-fit indices: chi square, root-mean-square error of approximation (RMSEA; Steiger, 1990) with 90% confidence interval (90% CI), Tucker Lewis Index (TLI; Tucker and Lewis, 1973) and Comparative Fit Index (CFI; Bentler, 1990). The structural level relates to correlations between the defined variables which are presented pictorially in a path diagram (Cohen and Cohen, 1983).

The SEM technique allows simultaneous testing of the measurement level and structural level and promotes theory testing by verifying associations between observed and latent factors in the specified model (Bryne, 2013). Unlike regression analysis (where only the dependant variable (DV) has an error term), SEM is advantageous in providing explicit estimates of error variance parameters for all latent factors within the specified model (Blunch, 2008). The latent factors of Self Determination Theory (SDT) were autonomy, competence and relatedness (measured by scores obtained from the Basic Psychological Needs at Work scale), and teaching satisfaction (measured by scores on the Teaching Satisfaction Scale). Co-variables included in the model were participants' age and years of teaching practice. The specified model was initially applied to the full sample of teachers to analyse the overall model fit. This incorporates all direct paths from predictors (autonomy, competence and relatedness) and covariates (age and years of teaching

practice) to teaching satisfaction. This testing was then repeated on a gender split sample in order to test the model on male and female teachers separately.

INSERT FIGURE 1 (SEM) ABOUT HERE

Results

The model was first tested on the full sample. This was then repeated on a gender split sample to assess if the model could be fitted to a male only sample and female only sample.

Descriptive statistics and Correlations

Descriptive statistics including means (M), standard deviations (SD) and ranges for all variables included in the study are presented in Table 1, along with Cronbach's alpha reliability statistics for the utilised measures (Cronbach, 1951). Correlations between the continuous variables included in the study were assessed using Pearson product-moment correlation coefficient.

INSERT TABLE 1 ABOUT HERE

Structural Equation Modelling (SEM)

The first step was to analyse the overall fit of the model which incorporates all direct paths from predictors (autonomy, competence and relatedness) and covariates (age and years of teaching practice) to teaching satisfaction.

Full Sample

In the full sample, the fit of the specified model indicated an acceptable model fit ($X^2(337) = 2119.12, p < .05, CFI = .88, TLI = .85, RMSEA = .061$ [90% CI = .061/.067]).

At the measurement level, all observed variables were significantly correlated with the latent factor they represent (all values were $p < .001$). All regression weights ranged from $\beta = .41$ to $\beta = .89$, indicating moderate to strong correlations. These are presented in Table 2.

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3 The relationships between teaching satisfaction and the latent factors of SDT were
4 investigated while controlling for the specified covariates. These are displayed in
5
6 Table 3.
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9 A significant direct effect was noted for the relationship between competence and
10 teaching satisfaction ($\beta = .785$, $p < .001$). All other predictors and covariates were not
11 significantly associated with the outcome variable.
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14 15 16 *Male sample* 17

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19 In the male only sample, the fit of the specified model indicated an acceptable model
20 fit ($\chi^2 (337) = 1113.14$, $p < .05$, CFI=.85, TLI=.85, RMSEA=.070 [90% CI = .066/.075].
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23 At the measurement level, all observed variables were significantly correlated with
24 the latent factor they represent (all values were $p < .001$). All regression weights
25 ranged from $\beta = .38$ to $\beta = .90$, indicating moderate to strong correlations. These are
26 presented in Table 2.
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30 The relationships between teaching satisfaction and the latent factors of SDT were
31 investigated while controlling for the specified covariates. These are displayed in
32 Table 3.
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36 A significant direct effect was noted for the relationship between competence and
37 teaching satisfaction ($\beta = .843$, $p < .001$). All other predictors and covariates were not
38 significantly associated with the outcome variable.
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47 In the female only sample, the fit of the specified model indicated an acceptable
48 model fit ($\chi^2 (337) = 1384.12$, $p < .05$, CFI=.89, TLI=.87, RMSEA=.062 [90% CI =
49 .058/.065].
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52 At the measurement level, all observed variables were significantly correlated with
53 the latent factor they represent (all values were $p < .001$). All regression weights
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3 ranged from $\beta = .47$ to $\beta = .89$, indicating moderate to strong correlations. These are
4 presented in Table 2.
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7 The relationships between teaching satisfaction and the latent factors of SDT were
8 investigated while controlling for the specified covariates. These are displayed in
9 Table 3.
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12 A significant direct effect was noted for the relationship between competence and
13 teaching satisfaction ($\beta = .736$, $p < .001$). All other predictors and covariates were not
14 significantly associated with the outcome variable.
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18 INSERT TABLES 2 AND 3 ABOUT HERE
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23 Conclusion

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25 This is the first known research to apply structural equation modelling to investigate
26 the association of Self Determination Theory (Deci and Ryan, 2000) and teaching
27 satisfaction (Ho and Au, 2006). The results demonstrate that only competence is
28 significantly related to teaching satisfaction. **Consequently, previous research which**
29 **has reported that all components of Self Determination Theory relate to satisfaction**
30 **(fWininger and Birkholz, 2013) is not supported by the current study findings.**
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34 With regards to autonomy, one explanation of this finding could be as suggested by
35 Grenville-Cleave and Boniwell, (2012) whereby innovative teaching is restricted due
36 to the structured framework of the schooling environment. **Alternatively it may be that**
37 **autonomy is not necessarily related to wellbeing as teachers may prefer a predefined**
38 **framework for teaching (Griva and Jockes, 2003). However, the importance of**
39 **autonomous teaching has been advocated in related research which has focussed**
40 **on teacher wellbeing (Skaalvik and Skaalvik, 2014). Future studies would be**
41 **advantageous to further illuminate the importance of autonomy from the teacher**
42 **viewpoint.**
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46 Similarly, the relationship between relatedness and teaching satisfaction was non-
47 significant, although previous research has reported the importance of this
48 relationship (Timms and Brough, 2013). It has previously been suggested that
49 positive relationships with colleagues contribute to teachers' sense of competence
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3 within a professional learning community (Owen, 2016). In this sense, the
4 significance of competence and its association with teaching satisfaction as reported
5 in the current study findings may incorporate elements of such relatedness. It would
6 be beneficial for future research to assess the views of teachers to ascertain the
7 importance of peers in contributing to their professional practice.
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12 What is evident from the current study findings is the therapeutic potential of the
13 school environment to facilitate satisfaction through permitting the need for
14 competence to be achieved. When needs are met this contributes to individual
15 wellbeing (Deci and Ryan, 2002). This standpoint aligns with the therapeutic ideology
16 previously noted within the primary school context (Macdonald and Winship, 2016).
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18 The recognised association of competence and teaching satisfaction also
19 demonstrates that the school setting is equally beneficial to both male and female
20 teachers. This is advantageous when considering developing strategies and
21 initiatives in light of the research findings.
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28 The findings of this research support the need for continuing professional
29 development for teachers. This would ensure that teachers remain up to date with
30 the evolving demands of the job and would contribute to competence and impact
31 teaching satisfaction. The results further support previous related research which
32 has highlighted the importance of competency to ensure job satisfaction (Stoll *et al.*,
33 2006). Furthermore, training which is collaborative would further promote collegial
34 relationships in a PLC framework (Owen, 2016). Development programmes which
35 inspire innovative practice may permit greater teacher autonomy and could further
36 contribute to teaching satisfaction. Such inclusions into a development strategy
37 would further allow schools to act as a therapeutic community by fostering motivation
38 and positive emotions which would not only be of benefit to teachers but may also
39 have positive effects on learners.
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48 A potential limitation of the current study is the application of self-reporting which
49 may not reflect the views of others within the school. Given that the relationship
50 between competence and satisfaction was shown to be significant this is noteworthy
51 of further exploration. An objective measure of competence based on supervisory
52 report or measured performance may consequently contribute to enhancing
53 knowledge on the relationship between competence and satisfaction at work. In
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3 addition, relatedness as measured in the current study refers to 'people at work' and
4 whilst this is intended to assess collegial relationships it may be that some teachers
5 have interpreted 'people' as students. Future research which explores relatedness
6 with colleagues and students as independent factors may be beneficial as previous
7 research has noted that both are important to wellbeing (Winger and Birkholz,
8 2013)
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13 Despite the potential limitations, it is necessary to explore more specifically competence and
14 satisfaction within the teaching role. Research which could illuminate the factors which
15 promote competence from a teacher perspective would be beneficial to guiding relevant
16 training tailored to the needs of teachers. This may serve to explain how a teacher's ability to
17 perform effectively can impact teaching satisfaction, which in turn may positively impact on
18 the wellbeing of teachers. This would be further advantageous as the link between teacher
19 wellbeing and student performance has been previously demonstrated (Roffey, 2012). Thus,
20 the therapeutic potential of the school community is not limited to the micro level, but is
21 beneficial on a more macro scale. Such work is needed if schools are to adopt a therapeutic
22 community ethos to facilitate teacher wellbeing.
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35 References

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37 Alhija, F. N. A. (2015), "Teacher Stress and Coping: The Role of Personal and Job
38 Characteristics", *Procedia - Social and Behavioral Sciences*, Vol.185, pp. 374 – 380.
39
40 Bentler, P. M. (1990), "Comparative fit indices in structural models", *Psychological*
41 *Bulletin*, Vol.107, pp. 238–246.
42
43 Blunch, N. J. (2008), *Introduction to structural equation modelling using SPSS and*
44 *AMOS*, London, Sage Publications.
45
46 Brookfield, S. D. (2015), *The skilful teacher, on technique, trust, and responsiveness*
47 *in the classroom* (2nd ed.). San Francisco, CA: Jossey-Bass.
48
49 Byrne B. M. (2013), *Structural Equation Modeling with AMOS. Basic concepts,*
50 *Applications and Programming*, 2nd Ed. London, Routledge.
51
52 Cohen, J. and Cohen, P. (1983), *Applied multiple regression/correlation analysis for*
53 *the behavioral sciences*, 2nd Ed. Hillsdale, NJ, Erlbaum.
54
55 Cronbach, L. J. (1951) "Coefficient alpha and the internal structure of tests"
56 *Psychometrika*, 22, pp.297-334.
57
58
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1
2
3 Department for Education. (2017), "School workforce in England: November 2016",
4 available at: <https://www.gov.uk/government/uploads> (Accessed 2nd August 2017).
5

6 Deci, E. L. and Ryan, R. M. (2000), "The 'what' and 'why' of goal pursuits: Human
7 needs and the self-determination of behaviour", *Psychological Inquiry*, Vol.11, pp.
8 227-268.
9

10 Esdar, W., Gorges, J., and Wild, E. (2016), "The role of basic need satisfaction for
11 junior academics' goal conflicts and teaching motivation". *Journal of Higher*
12 *Education*, Vol.72, pp.175–190.
13

14 Fink, D. (2003), "The law of unintended consequences: the 'real' cost of top-down
15 reforms", *Journal of Educational Change*, Vol. 4 No. 2, pp.105-128.
16

17 Grenville-Cleave, B. and Boniwell, I. (2012), "Surviving or thriving? Do teachers have
18 lower perceived control and well-being than other professionals?", *Management in*
19 *Education*, Vol.26 No.1, pp. 3-5.
20

21 Griva, K., and Joekes, K. (2003), "UK teachers under stress: can we predict wellness
22 on the basis of characteristics of the teaching job?", *Psychology and Health*, Vol. 18,
23 No. 4, pp.457-471.
24

25 Guglielmi, D., Bruni, I., Simbula, S., Fraccaroli, F., and Depolo, M. (2016), "What
26 drives teacher engagement: a study of different age cohorts", *European Journal of*
27 *Psychology of Education*, Vol. 31 No. 3, pp.323-340.
28

29 Ho, C. L. and Au, W. T. (2006), "Teaching satisfaction scale: measuring job
30 satisfaction of teachers", *Educational and Psychological Measurement*, Vol. 66, pp.
31 172-185.
32

33 Hong, J. Y. (2012), "Why do some beginning teachers leave the school, and others
34 stay? Understanding teacher resilience through psychological lenses", *Teachers and*
35 *Teaching: Theory and Practice*, Vol.18 No.4, pp. 417-440.
36

37 Hu, L. and Bentler, P. M. (1999), "Cut off criteria for fit indexes in covariance
38 structure analysis: Conventional criteria versus new alternatives". *Structural Equation*
39 *Modelling*, Vol.6, pp. 1–5.
40

41 Huppert, F. and Johnson, D. (2010), "A Controlled Trial of Mindfulness Training in
42 Schools: The importance of practice for an Impact on Wellbeing", *Positive*
43 *Psychology*, Vol.5, pp. 264-274.
44

45 Kline, R. B. (2013), "Assessing statistical aspects of test fairness
46 with structural equation modelling", *Educational Research and Evaluation*, Vol.19
47 No.2, pp. 204-222.
48

49 Klassen, R. M. and Chong, W. H. and Huan, V. S. and Wong, I. and Kates, A. and
50 Hannok, W. (2008), "Motivation beliefs of secondary school teachers in Canada and
51 Singapore: A mixed methods study", *Teaching and Teacher Education*, Vol.24, pp.
52 1919-1934.
53
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3 Liu, X. S. and Ramsey, J. (2008), "Teachers' job satisfaction: Analyses of the
4 Teacher Follow-Up Survey in the United States for 2000 –2001", *Teaching and*
5 *Teacher Education*, Vol. 24, pp.1173–1184.
6
7
8 MacDonald, S. and Winship, G. (2016), "The primary school as a therapeutic
9 community" *Therapeutic Communities. The International Journal of Therapeutic*
10 *Communities*, Vol. 37 No. 1, pp.18-26.
11
12 Owen, S. (2016), "Professional learning communities: building skills, reinvigorating
13 the passion, and nurturing teacher wellbeing and "flourishing" within significantly
14 innovative schooling contexts", *Educational Review*, Vol.68 No.4, pp. 403-419.
15
16 Polk, J. A. (2006), "Traits of Effective Teachers", *Arts Education Policy Review*, Vol.
17 107 No. 4, pp.23-29.
18
19 Roffey, S. (2012), "Pupil Wellbeing- Teacher Wellbeing: Two sides of the Same
20 Coin?", *Educational and Child Psychology*, Vol.29 No.4, pp. 9-17.
21
22 Roth, G., Assor, A., Kanat-Maymon, Y., and Kaplan, H. (2007), "Autonomous
23 motivation for teaching: How self-determined teaching may lead to self-determined
24 learning", *Journal of Educational Psychology*, Vol. 99, pp.761–774.
25
26 Rots, I., Kelchtermans, G., and Aelterman., A. (2012), "Learning (not) to Become a
27 Teacher: A Qualitative Analysis of the Job Entrance Issue", *Teaching and Teacher*
28 *Education*, Vol. 28 No. 1, pp.1–10.
29
30 Santoro, N., Pietsch, M., and Borg, T. (2012), "The passion of teaching: learning
31 from an older generation of teachers", *Journal of Education for Teaching*, Vol. 38 No.
32 5, pp.585-595.
33
34 Skaalvik, E. M. and Skaalvik, S. (2014), "Teacher self-efficacy and perceived
35 autonomy: Relations with teacher engagement, job satisfaction and emotional
36 exhaustion", *Psychological Reports: Employment Psychology & Marketing*, Vol 114
37 No. 1, pp.68-77.
38
39 Steiger, J. H. (1990), "Structural model evaluation and modification: An interval
40 estimation approach", *Multivariate Behavioural Research*, Vol.25, pp. 173–180.
41
42 Stoll, L. and Bolam, R. and McMahon, A. and Wallace, M. and Thomas, S. (2006),
43 "Professional Learning Communities: A Review of the Literature.", *Journal of*
44 *Educational Change*, Vol.7 No.4, pp. 221–258.
45
46 Timms, C. and Brough, P. (2013), "I like being a teacher": Career satisfaction, the
47 work environment and work engagement", *Educational Administration*, Vol.51 No.6,
48 pp. 768-789.
49
50 Tucker, L. R. and Lewis, C. (1973), "The reliability coefficient for maximum likelihood
51 factor analysis", *Psychometrika*, Vol.38, pp. 1–10.
52
53 Vescio, V. and Ross, D. and Adams, A. (2008), "A review of research on the impact
54 of professional learning communities on teaching practice and student learning",
55 *Teaching and Teacher Education*, Vol.24 No.1 pp. 80-91.
56
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2
3 Wagner, B. D. and French, L. (2010), "Motivation, Work Satisfaction, and Teacher
4 change Among Early Childhood Teachers", *Research in Childhood Studies*, Vol.24,
5 pp. 152-171.

6
7 Wilkesmann, U., and Schmid, C. J. (2014), "Intrinsic and internalized modes of
8 teaching motivation", *Evidence - Based HRM*, Vol. 2 No. 1, pp.6-27.

9
10 Wininger, S, R. and Birkholz, P, M. (2013). "Sources of Instructional Feedback, Job
11 Satisfaction, and Basic Psychological Needs", *Innovative Higher Education*, Vol.38,
12 pp.159-170.
13
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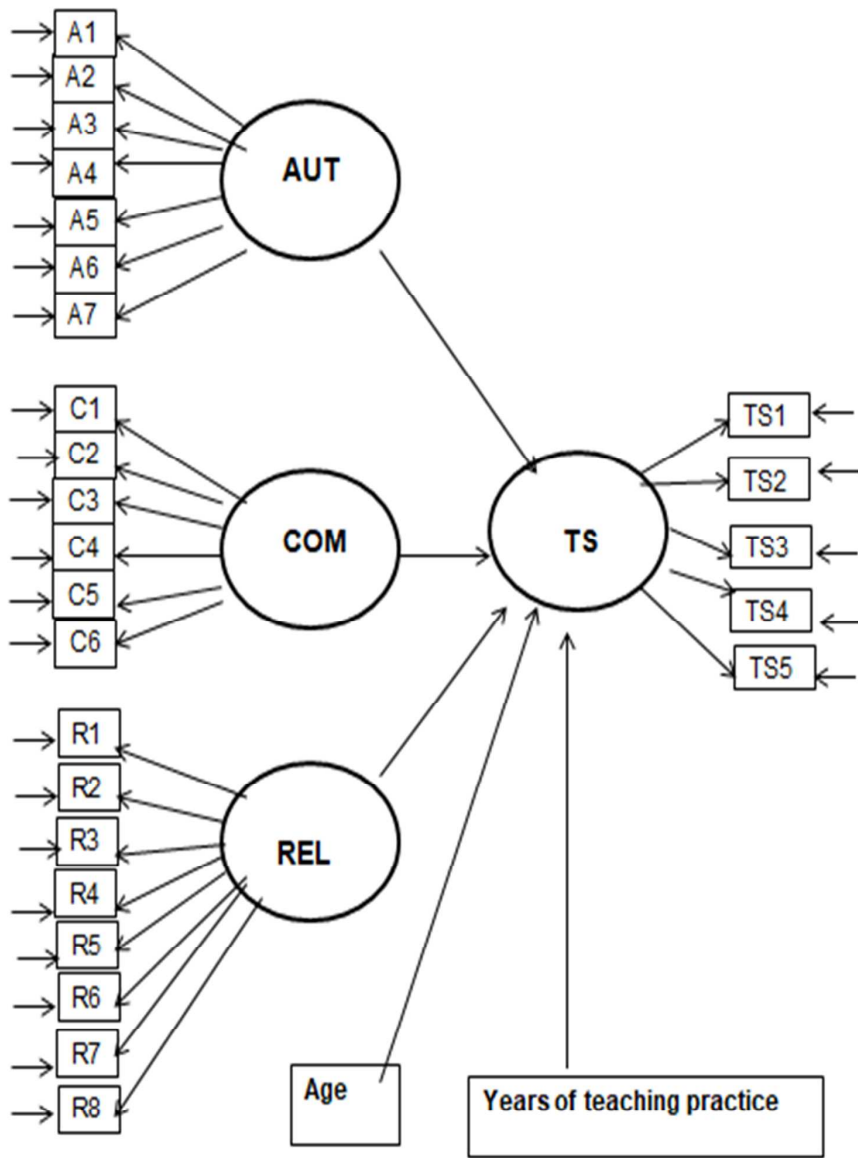


Figure 1. Structural equation model of teaching satisfaction.

AUT= Autonomy; COM= Competence; REL= Relatedness; TS = Teaching Satisfaction

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Table 1

Descriptive Statistics and Reliability of the Measures included in the study

Scale	M	SD	Range	Possible range	Chronbach's Alpha (α)
Autonomy	28.46	7.77	7 - 49	7 - 49	.82
Competence	29.06	6.35	7 - 42	6 - 42	.74
Relatedness	41.07	7.98	13 - 56	8 - 56	.84
Teaching satisfaction	15.44	4.96	5 - 25	5 - 25	.90

Table 2
Measurement level of the SEM of teaching satisfaction

Variables	Full sample					Males					Females				
	β	B	SE	β	B	SE	β	B	SE	β	B	SE	β	B	SE
TSS1	.761**	1.00	-	.783**	1.00	-	.745**	1.00	-	.628**	1.00	-	.745**	1.00	-
TSS2	.764***	1.00	.040	.770***	.983	.063	.759***	.983	.063	.607***	.907	.063	.759***	1.011	.052
TSS3	.890***	1.206	.041	.899***	1.214	.064	.885***	1.208	.064	.762***	1.229	.072	.885***	1.208	.053
TSS4	.826***	1.027	.038	.811***	.969	.058	.834***	1.066	.058	.489***	.749	.063	.834***	1.066	.050
TSS5	.760***	1.148	.046	.783***	1.134	.071	.746***	1.158	.071	.756***	1.204	.071	.746***	1.158	.061
AUT20	.636**	1.00	-	.656***	1.00	-	.628**	1.00	-	.405***	.624	.061	.628**	1.00	-
AUT17	.587***	.893	.051	.549***	.857	.085	.607***	.907	.085	.775***	1.313	.076	.607***	.907	.063
AUT13	.753***	1.232	.058	.740***	1.236	.095	.762***	1.229	.095	.563***	1.00	-	.762***	1.229	.072
AUT11	.456***	.704	.050	.384***	.593	.082	.489***	.749	.082	.529***	.962	.082	.489***	.749	.063
AUT8	.737***	1.172	.056	.695***	1.091	.088	.756***	1.204	.088	.807***	1.374	.089	.756***	1.204	.071
AUT5	.412***	.629	.049	.405***	.627	.082	.413***	.624	.082	.557***	1.025	.084	.413***	.624	.061
AUT1	.761***	1.286	.060	.738***	1.222	.094	.775***	1.313	.094	.466***	.843	.079	.775***	1.313	.076
COM19	.544**	1.00	-	.510**	1.00	-	.563***	1.00	-	.804	.804	.075	.563***	1.00	-
COM14	.535***	1.008	.069	.535***	1.085	.128	.529***	.962	.128	.563***	1.00	-	.529***	.962	.082
COM12	.821***	1.464	.078	.849***	1.655	.153	.807***	1.374	.153	.807***	1.374	.089	.807***	1.374	.089
COM10	.590***	1.108	.071	.646***	1.267	.133	.557***	1.025	.133	.557***	1.025	.084	.557***	1.025	.084
COM4	.451**	.838	.065	.426**	.837	.116	.466***	.843	.116	.466***	.843	.079	.466***	.843	.079
COM3	.457***	.822	.063	.430***	.841	.115	.467***	.804	.115	.467***	.804	.075	.467***	.804	.075
REL21	.699***	1.00	-	.635***	1.00	-	.725***	1.00	-	.725***	1.00	-	.725***	1.00	-
REL18	.615***	.910	.047	.574***	.993	.098	.638***	.886	.098	.638***	.886	.053	.638***	.886	.053
REL16	.524***	1.166	.069	.423***	1.072	.137	.571***	1.201	.137	.571***	1.201	.080	.571***	1.201	.080
REL15	.740***	1.345	.058	.669***	1.321	.114	.765***	1.347	.114	.765***	1.347	.067	.765***	1.347	.067
REL9	.707***	1.364	.061	.636***	1.419	.128	.735***	1.331	.128	.735***	1.331	.069	.735***	1.331	.069
REL7	.446**	.956	.066	.425**	1.083	.138	.460***	.918	.138	.460***	.918	.076	.460***	.918	.076
REL6	.703***	.958	.043	.715***	1.141	.094	.698***	.889	.094	.698***	.889	.048	.698***	.889	.048
REL2	.800***	1.364	.055	.806***	1.589	.120	.798***	1.283	.120	.798***	1.283	.061	.798***	1.283	.061

Note. TSS = Teaching Satisfaction Scale; AUT = Autonomy; COM = Competence; REL = Relatedness.

Table 3
Structural level of the proposed model of the relationship between teaching satisfaction, three components of Self Determination Theory, years of teaching practice and age.

Variables	Full sample			Males			Females		
	β	B	SE	β	B	SE	β	B	SE
AUT ->TSS	.040	.027	.056	.068	.051	.113	-.043	-.027	.065
COM ->TSS	.785***	1.009	.125	.843***	1.185	.254	.736***	.904	.144
REL -> TSS	-.037	-.030	.030	-.096	-.086	.054	.008	.005	.036
TY -> TSS	.047	.004	.004	.015	.001	.006	.075	.007	.004
Age-> TSS	.032	.003	.003	.033	.003	.005	.030	.002	.004

Note. TSS = Teaching Satisfaction; AUT = Autonomy; COM = Competence; REL = Relatedness; TY = Teaching Years.

* $p < .05$; ** $p < .01$; *** $p < .001$.