

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/282711331>

Exploring commitment and turnover intentions among teachers: What we can learn from Hong Kong teachers

Article in *Teaching and Teacher Education* · November 2015

DOI: 10.1016/j.tate.2015.08.004

CITATIONS

14

5 authors, including:



Dennis Michael McNerney

The Education University of Hong Kong

146 PUBLICATIONS 3,473 CITATIONS

[SEE PROFILE](#)



Fraide Agustin Ganotice

The University of Hong Kong

26 PUBLICATIONS 296 CITATIONS

[SEE PROFILE](#)



Ronnel B. King

The Education University of Hong Kong

94 PUBLICATIONS 1,083 CITATIONS

[SEE PROFILE](#)



Herb Marsh

Australian Catholic University

597 PUBLICATIONS 58,560 CITATIONS

[SEE PROFILE](#)

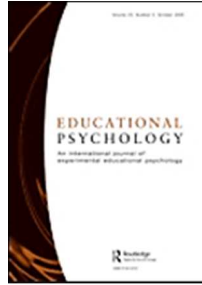
Some of the authors of this publication are also working on these related projects:



Principal Health and Wellbeing [View project](#)



ChiP-ARD [View project](#)



**Teachers' Commitment and Psychological Well-being:
Implications of
self-beliefs for teaching in Hong Kong**

Journal:	<i>Educational Psychology</i>
Manuscript ID:	Draft
Manuscript Type:	Original Article
Keywords:	teacher motivation < Teaching material, affective outcomes < Affect, Belief

SCHOLARONE™
Manuscripts

Abstract

Despite ample research on commitment in industrial settings, there has been no systematic attempt to investigate outcomes associated with teacher commitment. Therefore, the aim of this study was to examine the relationship between teacher commitment and psychological well-being in the work place using questionnaires. Hong Kong teachers (N = 857) participated. Hierarchical regression analyses were used to investigate how the three aspects of commitment pertaining to the organization and occupation predicted relevant outcomes. Results showed that affective and normative commitment positively predicted psychological well-being in the work place: interpersonal fit at work, thriving at work, feeling of competency, perceived recognition at work, desire for involvement at work, and job satisfaction. Continuance commitment was a negative predictor of some outcomes. Results of the current study provide support to Meyer's 3 X 2 factor model of commitment. Findings are discussed in relation to the situation of teachers in the Hong Kong context.

Keywords: teacher commitment, psychological well-being, Hong Kong teachers

1
2
3
4 Commitment is a word used to describe teachers' affective or emotional response to their
5
6
7 experience in an educational setting where there is evidence of a psychological bond between the work
8
9
10 force and the institution to which they show commitment (Ebmeier & Nicklaus, 1999; Firestone, 1996).
11
12 Teachers' commitment reflects the sense of fidelity and adherence of the teachers to the
13
14 institution they serve and it has been referred to as an effective mechanism influencing school
15
16 success (Fink, 1992). The relationship of teacher commitment to a myriad of educational and
17
18 psychological outcomes has been documented in previous research (Day, 2008; Dee, Henkin, &
19
20 Singleton, 2006). The literature suggests that committed teachers are those who give their best and put
21
22 effort in their jobs, focus on attainment of school goals, and stay in their schools. As a result commitment
23
24 has been found to be an important antecedent of affective and achievement outcomes such as
25
26 teaching performance, absenteeism, burnout and turnover, including influence on students'
27
28 achievement gains and their attitude towards school (Firestone, 1996; Park, 2005; Ebmeier, 2003;
29
30 Ingersoll, 2001; Somech & Bogler, 2002; Tsui & Cheng, 1999; Weiss, 1999).
31
32
33
34
35
36
37
38
39
40

41 A number of studies concerning teacher commitment have been conducted (see, for
42
43 example, Abd Razak, Darmawan, & Keeves, 2010; Chan, Lau, Nie, Lim, & Hogan, 2008; Choi
44
45 & Tang, 2009; Dee, Henkin, & Singleton, 2006; Shin & Reyes, 1991; Henkin & Holliman,
46
47 2009; Sezgin, 2009b). However, most of these studies considered commitment as a generalized
48
49 identification with either the school or the teaching profession and not as a multidimensional
50
51 construct. Recent theorizing and research in industrial and organizational psychology has
52
53
54
55
56
57
58
59
60

1
2
3
4 shown that commitment is a multidimensional construct which has differential impacts on
5
6
7 various outcome measures (Meyer, Stanley, Herscovitch & Topolnytsky, 2002).
8
9

10 In this context there has been, to our knowledge, no large scale and systematic attempt
11
12 within Hong Kong or elsewhere to map the multidimensional nature of teacher commitment
13
14 and its relationship to multiple measures of teachers' psychological well-being within the
15
16 school setting. Yet it would seem that self-beliefs about why one is committed to teaching, and
17
18 the multidimensional nature of teachers' commitment to their schools, as well as to the
19
20 teaching profession as a whole, should have a strong influence on both teaching effectiveness
21
22 and psychological well-being.
23
24
25
26
27
28
29

30 Extensive examination of how the multidimensional nature of teacher commitment relates
31
32 to multiple measures of psychological well-being is important. Doing this provides us with a
33
34 more nuanced picture of the dynamics of the multidimensional nature of teacher commitment
35
36 and multiple measures of well-being (e.g., interpersonal fit at work, feeling of competency,
37
38 perceived recognition at work, desire for involvement at work). Previous research has mostly
39
40 clarified how commitment relates with a narrower set of constructs (e.g., life satisfaction) only.
41
42 Involving multiple measures of psychological well-being is an opportunity for us to understand
43
44 clearly how they are influenced by the two objects of commitment, the organization and the
45
46 occupation. This study makes an additional important contribution by exploring the
47
48 relationship between commitment and its eventual outcomes (i.e., psychological well-being)
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3
4 among Hong Kong teachers. Setting the current investigation in a collectivist culture like Hong
5
6
7 Kong different from the typical Western context allows us to expand our understanding about
8
9
10 employees' commitment beyond the Western context.

11
12 Meyer and Allen (1990) developed the three-component model of commitment which has
13
14 been widely used in the Industrial and Organizational Psychology literature. *Affective*
15
16 commitment is defined as the employee's positive emotional attachment to the organization;
17
18
19 *continuance* commitment, is defined as the employee's attachment to the organization because
20
21
22 of the perceived high costs of leaving the organization (such as retirement benefits, leave
23
24
25 benefits), and *Normative* commitment is defined as an employee's attachment to the
26
27
28 organization because of feelings of obligation, loyalty and duty. To further highlight
29
30
31 conceptual differences among the three dimensions of commitment Allen and Meyer (1990, p.
32
33
34 3) said that "employees with strong affective commitment remain because they *want* to, those
35
36
37 with strong continuance commitment because they *need* to, and those with strong normative
38
39
40 commitment because they feel they *ought* to do so". Each of these has presumed differential
41
42
43 effects on job satisfaction, employee psychological well-being and their intent to stay in their
44
45
46 current profession and organisation.
47
48

49
50 While initially the focus was on commitment to the organization in which a person
51
52
53 worked, in a subsequent refinement of their model, Meyer et al, (1993) added a second
54
55
56 dimension, affective, continuance and normative commitment to the occupation, career or
57
58
59
60

1
2
3
4 profession as a whole. They argued that organizational and occupational commitments are
5
6 distinct constructs, with each contributing to the understanding of, and ability to predict work
7
8 behavior. As Meyer et al., (1993, p 540) said adding occupational commitment “provides a
9
10 more complete understanding of a person’s tie to his or her occupation” which may pave the
11
12 way to understand differential commitment to organization (i.e., school) and occupation (i.e.,
13
14 teaching).
15
16
17
18
19

20 21 22 *Psychological well-being* 23

24
25 The teaching profession is a demanding and stressful occupation (Borg, 1990; Dunham &
26
27 Varma, 1998; Kyriacou, 2001; Stoeber & Renner, 2008). Research suggests that the stress in
28
29 the teaching profession affects the general health, teaching career, students’ achievement gains,
30
31 and well-being of teachers (Chan, 2006; Hakanen, Bakker, & Schaufeli, 2006; O’Connor &
32
33 Clarke, 1990; Skaalvik & Skaalvik, 2009). Teacher stress and burnout have received increasing
34
35 attention given their impact on a wide range of important outcomes such as impairment of
36
37 teaching quality, job dissatisfaction, work alienation, physical and emotional ill-health, and
38
39 teachers’ leaving the profession (e.g., Boyle, Borg, Falzon, & Baglioni, 1995; Kyriacou,
40
41 2001; Vandenberghe & Huberman, 1999). In the Hong Kong context, the study of Chan and
42
43 Hui (1995) involving secondary school teachers indicated that heavy workload, among other
44
45 sources, was the major source of stress for teachers. If one is to believe that students’ scholastic
46
47 success is largely dependent on teachers’ quality and well-being (see for example Good &
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3
4 Brophy, 2003; Helmke, 2001; Rowan, Correnti, & Miller, 2002; Wentzel, 1998) then this must
5
6 inform policies in the teaching-learning environment because this will impact on teachers'
7
8 capacity to be effective teachers.
9
10

11
12 Specific to teaching profession, the literature defines teacher well-being as "a positive
13
14 emotional state that is the result of a harmony between the sum of specific environmental
15
16 factors on the one hand and the personal needs and expectations of the pupils vis-à-vis the
17
18 school on the other" (Engels, Aelterman, Van Petegem & Schepens, 2004 p. 128).
19
20
21

22
23 Psychological well-being at work (PWBW) is a construct describing an individual's subjective
24
25 positive work experience, and is composed of five eudemonic dimensions: interpersonal fit at
26
27 work, thriving at work, feeling of competency, perceived recognition at work, and desire for
28
29 involvement at work (Dagenais-Demarais and Sivoie, 2011).
30
31
32
33

34 35 36 37 The Hong Kong context 38

39
40 In this study, we focus on Hong Kong teachers' commitment and psychological
41
42 well-being. Thus, it might be helpful to present certain facts about the HK context to set the
43
44 stage for the current study. It is commonly thought that the Hong Kong teaching profession is a
45
46 highly stressful one (see Lau, Yuen, & Chan, 2005; Mo, 1991), with heavy teaching loads
47
48 (Titus & Ora, 2005), forced downsizing of schools, and potential staff redundancies. On the
49
50 other hand, the teaching profession is still very highly regarded and relatively well paid
51
52 (Education Bureau, 2013).
53
54
55
56
57
58
59
60

1
2
3
4 Given that the Hong Kong school context is characterized by strong inducements to teach
5
6 (relatively high status and salary) and strong social obligations (the issues of not losing face
7
8 and not giving-up because of discontent), it is quite likely that affective, normative, and
9
10 continuance commitments may work differently than in some Western contexts (see for
11
12 example Eisinga, Teelken & Doorewaard, 2010). We anticipated that continuance and
13
14 normative factors may be more strongly related to various aspects of psychological well-being
15
16 than affective commitment. In other words, whether one likes or does not like the school one is
17
18 teaching in, or the teaching profession as a whole (affective commitment), is less likely to be a
19
20 determining factor in how a Hong Kong teacher feels about teaching than continuance and
21
22 normative commitments, and hence these two are more likely strongly related to psychological
23
24 well-being than affective commitment.
25
26
27
28
29
30
31
32
33
34

35
36 This may contrast with some research findings in Western settings in which affective
37
38 commitment is more dominant (Glazer, Daniel & Short, 2004). It was also anticipated that
39
40 continuance commitment may be negatively related to both normative and affective
41
42 commitment, as well as to psychological well-being because the reasons for remaining in the
43
44 profession and job relate to external pressures such as preserving face, earning an income,
45
46 preserving superannuation and so on. For example a teacher may dislike teaching, and not be
47
48 particularly concerned about normative obligations, but nevertheless remain in the profession
49
50 because it is too hard to leave. In this case continuance commitment should be a negative
51
52
53
54
55
56
57
58
59
60

1
2
3
4 predictor of, for example, thriving at work. In line with previous research, affective
5
6
7 commitment is posited to be positively related to psychological well-being.
8

9
10 Examination of the relationships between psychological well-being and affective,
11
12 normative and continuance commitment is, therefore, especially important for the Hong Kong
13
14 school system as it strives to provide the strongest teaching force while facing teacher unrest
15
16 due to perceived heavy workloads, and teaching redundancies through downsizing of schools
17
18 (Education Bureau, 2013). Commitment to work is operationalized in terms of commitment
19
20 to organization (such as a particular school) and commitment to occupation (that is, the
21
22 teaching profession). Psychological well-being is operationalized through 5 dimensions:
23
24 interpersonal fit at work, thriving at work, feeling of competency, perceived recognition at
25
26 work, and desire for involvement at work.
27
28
29
30
31
32
33
34
35
36

37 The present study
38

39
40 Using the three component model of commitment this study hopes to contribute to the
41
42 ongoing scholarly conversation on teacher commitment in a number of ways. First, it attempts
43
44 to identify the dimensions of teacher commitment and psychological well-being of Hong Kong
45
46 teachers by validating the Affective, Continuance and Normative Organizational Scale (Meyer
47
48 & Allen, 1990) and the Psychological well-being Scale (Dagenais-Desmarais & Savoie, 2011)
49
50 in an Asian setting specifically in the Hong Kong context. It was noted by Meyer et al., (2002)
51
52 in their meta-analysis of organizational commitment studies that an important next step in
53
54
55
56
57
58
59
60

1
2
3
4 establishing the generalizability of the three-component commitment model is to do a
5
6 cross-cultural validation in other countries outside North America, and therefore research
7
8 involving other cultural settings is warranted. The importance of establishing the cross-cultural
9
10 validity of instruments has been emphasized by a number of researchers (see for example
11
12 Hambleton, 2001; Maneesriwongul & Dixon, 2004; van deVijver & Hambleton, 1996; van de
13
14 Vijver & Leung, 1997; and van de Vijver & Tanzer, 2004). Second, this study will provide an
15
16 understanding of the nature and level of psychological well-being of Hong Kong teachers. This
17
18 study will also examine the relationships of six commitment predictors to the psychological
19
20 well-being of Hong Kong teachers to determine the relative salience of each. Finally, this study
21
22 may partly address Meyer et al's., (2002) observation that more work is needed to understand
23
24 the nature of normative commitment and whether it contributes uniquely to the prediction of
25
26 work-related behavior and experiences.
27
28
29
30
31
32
33
34
35
36

37
38 Specifically, the study sets out to:
39

- 40
41 1. Establish the construct validity and reliability of the three-component model of
42
43 organizational and occupational commitment, and the construct validity and reliability
44
45 of the Psychological Well-being scales for a sample of teachers in Hong Kong;
46
47
48
49
- 50
51 2. Examine the nature and level of commitment and psychological well-being among a
52
53 sample of teachers in Hong Kong; and
54
55
56
57
58
59
60

- 1
2
3
4 3. Examine the relationships between affective, normative and continuance commitment
5
6 to organization (school) and occupation (teaching), and their relationships to
7
8 psychological well-being.
9
10

Method

Participants

11
12
13
14
15
16
17
18 The participants of this study were 859 Hong Kong teachers from 15 primary and 15
19
20 secondary schools located in a cross section of educational regions in Hong Kong. Of these
21
22 participants, 295 (34.3%) were males and 560 (65.2%) were females, (4 or .4% failed to
23
24 indicate their sex). The mean age was 43 years ($SD = 43.09$) and the median age was 40 years
25
26 old. The average year of teaching experience was 15.15 with a range of 1-40 years. In terms
27
28 of family income, there were 13.50% whose income ranged from 15,000 – 29,999 HKD;
29
30 35.97% from 30,000 – 49,999 HKD and 47.26% from 50,000 – 79,999 HKD. The remaining
31
32 3.27% failed to indicate their family income. In terms of highest education attainment, 2.44%
33
34 of participants completed diploma or associate degrees, 51.29% completed college degrees,
35
36 44.47% completed master's degrees, 0.6% received doctoral degrees while 1.8% did not
37
38 indicate their highest education attained.
39
40
41
42
43
44
45
46
47
48

Measures

49
50
51
52
53
54 *Affective, Continuance, and Normative Commitment.* An adaptation of The Affective,
55
56
57
58
59
60
Continuance, and Normative Organizational and Occupational Commitment Scales (Meyer,

1
2
3
4 Allen, & Smith, 1993) was used to measure teacher commitment. Commitment has three
5
6
7 components: affective, continuance, and normative.

8
9
10 *affective* – defined as the employee’s positive emotional attachment. Affective commitment
11
12 has the following dimensions: affective commitment to occupation (3 items, e.g. “Being in the
13
14 teaching profession is important to my image”) and affective commitment to the organization
15
16
17 (3 items, e.g. “I do not feel like part of the family at my school”).

18
19
20
21 *continuance* – defined as the employee’s attachment due to the perceived high cost of leaving
22
23
24 such as retirement benefits and leave benefits and lack of alternatives. Continuance
25
26
27 commitment has the following dimensions: continuance commitment to occupation (3 items,
28
29
30 e.g. “Changing professions now would be difficult for me to do”), and continuance
31
32
33 commitment to organization (3 items, e.g., “It would be very hard for me to leave my school
34
35
36 right now, even if I wanted to”).

37
38
39 *normative* – defined as an employee’s attachment due to feelings of obligation, loyalty, and
40
41
42 duty. Normative has the following dimensions: normative commitment to the occupation (3
43
44
45 items, “I feel a responsibility to the teaching profession to continue in it”) and normative
46
47
48 commitment to the organization (3 items “This school deserves my loyalty”).

49
50 Note that the original scales had six items each (Meyer, Allen & Smith, 1993), but because the
51
52
53 full survey contained a number of other dimensions measuring a wide range of teacher
54
55
56 attributes it was decided to reduce the number of items used for brevity and ease of completion
57
58
59
60

1
2
3
4 by the teachers. In order to reduce the number of items we selected the three highest loading
5
6
7 items from the Meyer et al CFA analyses. A five-point Likert scale was used ranging from 1
8
9
10 (totally disagree) to 5 (totally agree) was used for the Affective, Continuance, and Normative
11
12
13 Organizational and Occupational Commitment Scales.

14
15 *Psychological Well-Being at Work.* Psychological well-being at work is comprised of five
16
17 dimensions (Dagenais-Desmarais & Savoie, 2011). These include *interpersonal fit at work* –
18
19 perception of experiencing positive relationships with individuals interacting with oneself
20
21 within the work context (5 items, e.g. “I value the people I work with”), *thriving at work* –
22
23 perception of accomplishing a significant and interesting job that allows one to fulfill oneself
24
25 as an individual (5 items, e.g. “I find my job exciting”), *feeling of competency* – perception of
26
27 possessing the necessary aptitudes to do one’s job efficiently and have mastery of the tasks to
28
29 perform (5 items, e.g. “I know I am capable of doing my job”), *perceived recognition at work* –
30
31 perception of being appreciated within the organization for one’s work and one’s personhood
32
33 (5 items, e.g. “I feel that my work is recognized”), and *desire for involvement at work* – will to
34
35 involve oneself in the organization and to contribute to its functioning and success (5 items, e.g.
36
37 “I want to take initiative in my work”).

38
39
40
41
42
43
44
45
46
47
48
49
50 A 7-point Likert-type scale was used for Psychological Well-Being self-report
51
52
53 questionnaires ranging from 1 (strongly disagree) to 7 (strongly agree) with higher values
54
55
56 indicating a greater degree of endorsement.
57
58
59
60

Procedures

The original commitment to occupation and organizational scales were designed for the nursing profession and each question referred to the nursing profession. In order to make the questionnaire appropriate to teachers and schools a slight adaptation was made to the scales by adding the word 'school' or 'teaching profession' to the stems of the questions. This approach was consistent with the suggestion of Meyer et al., (1993). Teachers contributing to this study were invited to complete a paper and pen version of the survey. Teachers were given the choice to answer the surveys in English or Chinese. However, all teachers chose to answer the Chinese versions. The Chinese version of the scale had been translated from the English using forward and backward translation procedures (Maneesriwongul & Dixon, 2004).

Statistical analysis

In order to establish construct validity evidence for the hypothesized six-factor structure of the Affective, Continuance and Normative Occupational and Organizational Commitment Scales and the five-factor Psychological Well-being scales for use with Hong Kong teachers we conducted a series of CFAs using AMOS 16 (Arbuckle, 2007).

Hierarchical regression analysis was conducted to determine the relationship between the six dimensions of teacher commitment and the various indices of psychological well-being. Teacher commitment to organization (affective commitment, normative commitment, continuance commitment) and to occupation (affective commitment, normative commitment,

1
2
3
4 continuance commitment) were used as predictor variables while psychological well-being
5
6
7 (interpersonal fit at work, thriving at work, feeling of competency perceived recognition at
8
9
10 work, desire for involvement at work) served as the criterion variables.

11
12 In order to control for any effects of gender, income and educational level, these three
13
14 variables were entered at the first step of the regression equation as covariates. Following
15
16 procedures used by Meyer, Allen and Smith (1993), we entered commitment to organization at
17
18 the second step. At step 3, we entered commitment to occupation. We were interested to know
19
20 whether commitment to occupation would account for a significant amount of variance in
21
22 predicting psychological well-being of Hong Kong teachers after controlling for the effects of
23
24 demographics and commitment to organization. Recall that in the study of Meyer et al., (1993),
25
26 they controlled for commitment to organization to evaluate if subscales of commitment to
27
28 occupation are independent constructs which can contribute uniquely in predicting work
29
30 behavior. Therefore, in this paper we adopted a similar approach.
31
32
33
34
35
36
37
38
39
40
41
42

43 Results

44 *Preliminary analyses*

45
46 We checked the normality of data by first assessing the skewness and kurtosis values for
47
48 each item. Absolute values of skewness and kurtosis beyond 2 and 7, respectively, may imply a
49
50 lack of univariate normality (Finney & DiStefano, 2006). A look at the skewness and kurtosis
51
52 values showed that there does not seem to be a violation of normality assumptions. We also
53
54
55
56
57
58
59
60

1
2
3
4 checked for outliers by looking at the Mahalanobis distance (D_2). Values that stand
5
6
7 distinctively apart from other values can be considered outliers. No such outliers were found.
8
9
10 Maximum likelihood was used as the method of estimation.

11
12 Descriptive statistics, reliability coefficients and correlations among study variables are
13
14 shown in Table 1. Internal consistency for each scale was established by calculating
15
16
17
18 Cronbach's alpha coefficients. Subscales of the Affective, Continuance, and Normative
19
20
21 Organizational and Occupational Commitment scales had alpha values ranging from .67 to .85.
22
23
24 Subscales of the Well-Being scale had alpha values ranging from .75 to .92. The internal
25
26
27 consistency of the scales were generally acceptable.
28
29

30 An examination of the means for the commitment scales indicated that the two highest
31
32
33 ranked scales in order of mean size were normative commitment to the organization followed
34
35
36 by normative commitment to the occupation. The two lowest ranked scales were continuance
37
38
39 commitment to the occupation followed by continuance commitment to the organization. The
40
41
42 mean distribution of the commitment scales was quite wide ranging from 5.24 for normative
43
44
45 commitment to the organization and the lowest, 3.61 for continuance commitment to the
46
47
48 organization.
49

50 Mean scores for the psychological well-being scales did not have a large range with the
51
52
53 highest endorsed scale being thriving at work ($M=5.13$) and the least endorsed scale being
54
55
56 perceived recognition at work ($M=4.62$).
57
58
59
60

1
2
3
4 An examination of the zero order correlations showed that continuance commitment to
5
6 the organisation was negatively related to all other commitment subscales (range -.24 to -.64,
7
8 $p < .001$), and negatively related to all five psychological well-being scales (range -.24 to -.57,
9
10 $p < .001$). Normative commitment to the organization was positively related to all other
11
12 variables (range $r = .17$ to $r = .89$, $p < .001$) except for continuance commitment to organization
13
14 to which it was negatively related ($r = -.24$, $p < .001$). Affective commitment to the
15
16 organization was significantly and positively related to normative and continuance
17
18 commitment to organization, affective and normative commitment to occupation, interpersonal
19
20 fit at work, thriving at work (range .10 to .48, $p < .01$ to $p < .005$) and negatively related to
21
22 continuance commitment to the occupation and feelings of competency (range -.14 to -.44,
23
24 $p < .001$). Of particular interest is the negative relationship between continuance commitment to
25
26 the organization and psychological well-being, and the positive relationship between
27
28 continuance commitment to occupation and psychological well-being.

29
30
31
32
33
34
35
36
37
38
39
40
41 ***Insert Table 1 about here

42 43 44 *Confirmatory factor analysis*

45
46
47 Confirmatory factor analyses for the two scales indicated good fit: commitment scale:

48
49
50 ($\chi^2 = 799.596$, $df = 118$, $RMSEA = .08$, $TLI = .90$, $CFI = .91$, $NFI = .90$, $IFI = .91$); and psychological
51
52 well-being scale: ($\chi^2 = 1965.10$, $df = 254$, $RMSEA = .08$, $TLI = .90$, $CFI = .93$, $NFI = .92$, $IFI = .93$).

53
54
55 All factor loadings were significant at the $p < .001$ level (Byrne, 2010; MacCallum et al., 1996).

1
2
3
4 Additional CFA investigated the fit of alternative model for commitment: a one-factor
5
6
7 model in which all commitment items loaded onto one factor: ($\chi^2=3638.207$, $df=135$,
8
9
10 RMSEA=.17, TLI=.49, CFI=.55, NFI=.54, IFI=.55). Similarly, we also tested a one-factor
11
12 alternative model for psychological well-being in which all items load into one factor (χ^2
13
14 =4274.882, $df=275$, RMSEA=.13, TLI=.74, CFI=.76, NFI=.75, IFI=.76). The fit indexes
15
16
17 indicated that none of the alternative models provided a good fit to the data and suggest that the
18
19
20 five-factor model of psychological well-being and the six-factor model of teacher commitment
21
22
23 provided a better fit than any of the alternative models.
24
25
26

27 28 *Regression analyses* 29

30
31 In order to examine the relationships between affective, normative and continuance
32
33 commitment to organization and occupation, and their relationships to psychological
34
35 well-being, we conducted a series of hierarchical multiple regression analyses. To control for
36
37 the effects of different demographic backgrounds of the teachers we entered three
38
39 demographic variables (gender, income, and level of education) at the first step. These three
40
41 variables accounted for a negligible amount of variance in the outcome measures of
42
43 psychological well-being. At step 2, we entered the subscales of the teacher commitment to
44
45 organization (affective commitment, normative commitment, continuance commitment).
46
47
48 These three variables were able to explain a significant amount of variance across the five
49
50 outcome variables, ranging from 36% to 81.8%. An analysis of the beta weights indicates that
51
52
53
54
55
56
57
58
59
60

1
2
3
4 across the five psychological well-being scales normative commitment to the organization
5
6
7 was consistently the strongest predictor. Specifically at step 2, *normative commitment to*
8
9
10 *organization* was the strongest predictor of all psychological well-being subscales:
11
12 interpersonal fit at work, thriving at work, feeling of competency, perceived recognition at
13
14 work and desire for involvement at work. This was followed by affective commitment to the
15
16 organization (predicting feeling of competency, perceived recognition at work, and desire for
17
18 involvement at work). Continuance commitment to the organization negatively predicted
19
20 interpersonal fit at work and thriving at work, while positively predicting feeling of
21
22 competency and desire for involvement at work. In step 3, the subscales of the teacher
23
24 commitment to occupation (affective commitment, normative commitment, continuance
25
26 commitment) were entered. The addition of these variables contributed a small, yet
27
28 significant amount to the overall variance explained by the equation across the five
29
30 psychological well-being scales (from 3.4% to 18.2%) after controlling for the effect of
31
32 demographic variables and organizational commitment.
33
34
35
36
37
38
39
40
41
42
43

44 The full block of variables explained from 54.4% to 89.9% of the variance across the five
45
46 outcome variables. Based upon the ranked order of standardized beta weights normative
47
48 commitment to the organization and normative commitment to the occupation were the
49
50 strongest predictors of psychological well-being. Affective commitment to the organization
51
52 and the occupation was a weak positive predictor of psychological well-being, although
53
54
55
56
57
58
59
60

1
2
3
4 affective commitment to the occupation was the strongest predictor of interpersonal fit at work.
5
6

7 Continuance commitment to the occupation was not a strong predictor except for desire for
8

9 involvement at work. Continuance commitment was a negative predictor of interpersonal fit at
10
11
12 work and thriving at work
13

14
15
16 INSERT TABLE 2 ABOUT HERE
17

18 The order of entry of variables in hierarchical regression may provide different patterns of
19
20 prediction (Ho, 2006). It is possible that, although we entered our blocks of variables following
21
22 the logic of Meyer et al. (1993), the order of entry of the commitment variables blocks
23
24 (organization and occupation) could be reversed with occupational commitment variables
25
26 being entered first, followed by the organizational commitment variables. To examine the
27
28 independent effects of the occupational variables when not controlling for the organization
29
30 variables we entered the occupational variables as a second block after the demographic
31
32 variables. What clearly emerged from this analysis was the importance of normative values,
33
34 with normative commitment to the occupation being the strongest predictor across all five
35
36 psychological well-being variables. Indeed, across the five sets of analyses there were very
37
38 few significant predictor variables other than for the normative commitment to occupation.
39
40
41
42
43
44
45
46
47
48
49
50 This strongly supports the results of the previous analyses.
51

52
53 INSERT TABLE 3 HERE
54

55 56 Discussion 57 58 59 60

1
2
3
4 The primary aim of this study was to investigate the relationships between Hong Kong
5
6
7 teachers' affective, normative and continuance commitments and their relationships to
8
9
10 psychological well-being. In order to do this we had to evaluate the construct validity and
11
12 reliability of the three-component model of organizational and occupational commitment and
13
14 psychological well-being scales for a sample of teachers in Hong Kong. We also wished to
15
16 examine the nature and level of commitment and psychological well-being among these
17
18
19 teachers.
20
21
22

23
24 Our initial CFA analyses demonstrated commitment is multi-dimensional, comprising
25
26 three of elements: affective commitment (AC), normative commitment (NC) and continuance
27
28 commitment (CC). Commitment can also be construed either as commitment to the
29
30 organization or commitment to the teaching profession. It also appears from an analysis of
31
32 the mean scores that the teachers in our sample self-report good interpersonal fit at work ($M =$
33
34 4.85), thrive at work ($M = 5.13$), feel competent ($M = 4.73$), are recognized ($M = 4.62$), and
35
36 desire to be involved with work ($M = 4.72$). Although we expected continuance commitment
37
38 to be highly endorsed, it was the least endorsed commitment of the three-component model.
39
40
41 An analysis of the means for each of the six commitment subscales shows, in contrast to our
42
43 expectations, that continuance commitment (that is an attachment to the organization or
44
45 occupation because of the perceived high costs of leaving the organization or occupation),
46
47 was the least endorsed ($M = 3.61$; refer to Table 1).
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3
4 Normative commitment (that is an attachment to the organization and occupation
5
6
7 because of feelings of obligation, loyalty and duty), was the most highly endorsed. This
8
9
10 suggests, in line with our hypothesis, that the teachers in our sample had high levels of
11
12 loyalty and obligation towards their career. Affective commitment was also highly endorsed
13
14 but not as high as normative. Our finding is consistent with the earlier finding of Fischer and
15
16 Mansell's (2009) meta-analysis which showed that normative commitment is more salient in
17
18 societies with high degrees of collectivism, compliance to authority, and power distance
19
20 which is the case for the Hong Kong Chinese culture (Hofstede, 1993; Hofstede, 2001;
21
22 Hofstede & Bond, 1988; Markus & Kitayama, 1991; Tseng, 2004).
23
24
25
26
27
28
29

30 In line with our hypothesis, the zero order correlations showed that continuance
31
32 commitment to the organization (measured by items such as 'I feel that I have too few options
33
34 to consider leaving this school') was negatively related to all five psychological well-being
35
36 scales and to all other commitment scales. This indicates that to the extent one is motivated by
37
38 continuance commitment the more negative the effect on psychological well-being, affect
39
40 towards teaching, and normative commitment to teaching. This finding expands previous
41
42 research on the negative relationship between continuance commitment to organization and job
43
44 performance and organizational citizenship behavior and positive relationship with stress and
45
46 work-family conflict (Meyer et al., 2002; Meyer et al., 2012).
47
48
49
50
51
52
53
54

55
56 Using hierarchical regression, we were able to demonstrate that both commitment to the
57
58
59
60

1
2
3
4 organization and commitment to the occupation predicted psychological well-being even
5
6
7 when controlling for demographic variables. In line with expectations, normative
8
9
10 commitment to the organization was found to be the most important positive predictor of
11
12 well-being. Normative commitment is believed to develop as the result of socialization
13
14 experiences that underscores the appropriateness of remaining loyal to one's employer
15
16
17 (Winner, 1982). Normative commitment to organization was the most significant predictor of
18
19
20 all psychological well-being variables involving Hong Kong teachers: interpersonal fit at
21
22
23 work, thriving at work, feeling of competency, perceived recognition at work and desire for
24
25
26 involvement at work. In other words, teachers' feelings of loyalty and responsibility to
27
28
29 remain in the teaching profession as a function of normative pressures, social ties and
30
31
32 in-group goals (e.g., Near, 1989; Randall, 1993) enhance their psychological well-being.
33
34

35
36 Normative commitment may be triggered by employees' experiences either prior to and
37
38 following entry to work (Allen & Meyer, 1990; Meyer et al., 2012; Weiner, 1982). While
39
40
41 research findings among Western samples consistently suggest the importance of affective
42
43
44 commitment in influencing organization- and employee-relevant outcomes (e.g., Eisinga, et
45
46
47 al., 2010; Rhoades, Eisenberger & Armeli, 2001), our present findings demonstrate that for
48
49
50 Hong Kong teachers, normative commitment was more important in determining their
51
52
53 psychological well-being. This suggests the importance of understanding the influence of
54
55
56 cultural elements in the study of commitment to organizations and occupations.
57
58
59
60

1
2
3
4 Cross-cultural research has shown that normative commitment is greater in collectivist
5
6
7 and/or high power distance cultures (Hofstede, 2001; Meyer et al., 2012) such as Hong Kong
8
9
10 while affective commitment is higher in more individualistic cultures. In fact, it is assumed
11
12 that greater collectivism (setting personal interest aside in favor of group interest) is
13
14 associated with higher degree of normative commitment (Fischer & Mansell, 2009). Our
15
16 result on the importance of normative commitment in determining the well-being of Hong
17
18 Kong Chinese teachers speaks to the importance of understanding commitment within the
19
20 lens of individualism-collectivism dimension of cultural variability. Building on this, it may
21
22 be conjectured that the promotion of loyalty and obligation to the workplace may enhance
23
24 psychological well-being among Hong Kong teachers. It seems that their high regard for
25
26 norms and duties imposed by collective entities reflective of their normative commitment
27
28 promotes their psychological well-being at work. Of course, the converse may be true;
29
30 teachers with high levels of psychological well-being may also be the ones who develop
31
32 stronger loyalty to their organizations. A longitudinal study is needed to test out the direction
33
34 of effect.
35
36
37
38
39
40
41
42
43
44
45
46

47 We had thought that continuance commitment to the organization and the occupation
48
49 would be significant negative predictors of psychological well-being because the reasons for
50
51 remaining in the profession such as 'changing professions now would be difficult for me to
52
53 do' are rather extrinsically oriented. Research findings demonstrate that continuance
54
55
56
57
58
59
60

1
2
3
4 commitment is negatively related to job performance and organizational citizenship behavior
5
6
7 that are beneficial to organizations or occupations (Meyer et al., 1993; Meyer et al., 2012).
8

9
10 We had assumed that there may be teachers in Hong Kong continuing to teach because it is
11
12 too disruptive (i.e., losing salary and benefits earned for long years of service) for them to
13
14 change to another profession. In general, continuance to the organization was a weaker
15
16 predictor than normative commitment. In line with our hypothesis, continuance commitment
17
18 to the organization was a negative predictor of interpersonal fit at work, and thriving at work.
19
20
21 However, it was a positive predictor of feeling of competency and perceived recognition at
22
23 work suggesting that measures of competence (such as 'I know my value as a worker') and
24
25 recognition (such as 'I feel that my work is recognised') are stronger for those who are high
26
27 in continuance commitment. This finding may have something to do with the Asian
28
29 achievement goal structure suggesting that extrinsic motivation and performance goal are not
30
31 always negative in effect for Asians (see for example Ng & Renshaw, 2002; Zhue & Leung,
32
33 2011).
34
35
36
37
38
39
40
41
42
43

44 Affective commitment to the organization did not predict interpersonal fit at work or
45
46 thriving at work. It did however significantly and positively predict feeling of competency. It
47
48 was a negative predictor of perceived recognition at work and desire for involvement at work,
49
50 suggesting that those teachers who are positively emotionally aligned with their schools do
51
52 not feel strong recognition and desire for involvement, a somewhat counter-intuitive finding.
53
54
55
56
57
58
59
60

1
2
3
4 It may be possible that teachers who are high in affective commitment to their organization
5
6
7 might already be highly involved in school-work endeavors. Therefore, they may not want to
8
9
10 have any extra involvement or earn extra recognition from doing their school duties.

11
12 Affective commitment to the occupation was generally a low order predictor; teachers having
13
14 a high affective commitment to the occupation also had better interpersonal fit at work and
15
16
17 feelings of competency. Although affective commitment was significantly related to
18
19
20 well-being in terms of bivariate correlations (refer to Table 1) it did not become a significant
21
22
23 predictor of psychological well-being in the multiple regression analyses which suggests that
24
25
26 normative commitment is more salient than affective commitment in determining the
27
28
29 well-being of Chinese teachers.
30
31

32
33 The 'take home' message from these analyses is the important role played by
34
35
36 normative commitment to the organization and occupation in Hong Kong teachers'
37
38
39 psychological well-being. Teachers who feel their school deserves their loyalty, and feel they
40
41
42 owe a great deal to their schools and the teaching profession, have stronger psychological
43
44
45 well-being, they feel good fit with their profession, are proud of the job they have, feel
46
47
48 confident at work, feel appreciated and want to contribute to achieving the goals of their
49
50
51 schools. Normative commitment to both organization and occupation was, by far, the most
52
53
54 important predictor. Hence, it is essential that school administrators provide teachers with a
55
56
57 working environment that facilitates the development and maintenance of loyalty to both
58
59
60

1
2
3
4 their schools and the teaching profession in general.

5
6
7 Conversely, continuance commitment can have a negative influence on psychological
8
9
10 well-being; hence the inducements to continue with teaching need to go beyond the mere
11
12 constraints people assume they may have in changing professions. Finally, it is interesting to
13
14 note that affective commitment, in contrast to some Western findings (Eisinga et al., 2010),
15
16 was not a significant predictor for most variables, perhaps indicating that whether one feels
17
18 emotionally attached or not to one's school or profession is not so relevant in a culture in
19
20 which values of loyalty and responsibility are paramount. This finding may be understood
21
22 within the context of a collectivist culture (see Triandis, 2001) where a person's identity is
23
24 defined by his or her group membership.
25
26
27
28
29
30
31

32
33 This study showed commitment to organization functioned as an important predictor of
34
35 teachers' psychological well-being. In this way the study extends the existing literature by
36
37 focusing on the consequences of teacher commitment. We found that commitment to
38
39 organization and occupation (especially normative commitment) has an important impact on
40
41 the psychological well-being of Hong Kong teachers. Specifically, Hong Kong teachers who
42
43 express commitment through a sense of loyalty and responsibility to their school and the
44
45 teaching profession have enhanced psychological well-being. This has important practical
46
47 implications since social relationships may be more malleable to change through intervention
48
49 compared to more stable trait variables. In the light of the findings, it is interesting to reflect
50
51
52
53
54
55
56
57
58
59
60

1
2
3
4 that commitment goes beyond simple compliance, emotional attachment to the organization is
5
6 also important (Storey, 1995) emphasizing the importance of harnessing employees'
7
8
9
10 commitment.

14 Limitations and Future Directions

16
17 We would like to acknowledge a number of limitations. First, the data were obtained from
18
19 self-reports, hence, may be subject to social desirability response bias and common method
20
21 variance. Second, we posited a relationship from commitment scales to psychological
22
23 well-being and tested this through hierarchical multiple regression. However, the direction of
24
25 effect is open to further investigation. For example, the direction of effects may be from
26
27 commitment to psychological well-being, from psychological well-being to commitment, or
28
29 reciprocal. Longitudinal studies are needed to provide stronger evidence for the direction of the
30
31 effects. Third, while every care was taken to translate the items into Chinese so that they
32
33 retained the original meaning of the English items we can never be sure that the nuances of
34
35 items and scales are retained in the Chinese version. Fourth, we averaged responses across all
36
37 levels of respondents. A more refined study with a larger sample size could examine
38
39 moderation effects associated with length of service (e.g., teachers in the profession longer
40
41 may have stronger continuance commitment), type of school (church based schools may have
42
43 different patterns from public schools), level of position (school administrators may have
44
45 different patterns of commitment to class teachers), and by gender the interactions by length of
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3
4 service. In the future, it would also be interesting to clarify the differential psychological
5
6 well-being of teachers whose commitment is characterized as high normative and low affective
7
8 in comparison with teachers whose commitment is characterized as low normative and high
9
10 affective. It is equally interesting to explore the relationship between teacher commitment and
11
12 intention to stay in school in the context of groups of teachers characterized as high normative
13
14 in comparison with low normative. Finally, further exploration can be done on the cultural
15
16 and/or group variability on teacher commitment to account for East-West differences using the
17
18 Meyer's et al., (1993) three-component model (TCM) of commitment to organizations and
19
20 occupations.
21
22
23
24
25
26
27
28
29
30

31 Implications

32
33
34 This paper contributes to the existing literature by showing that both organizational and
35
36 occupational commitment can be integrated in order to better understand the commitment of
37
38 teachers. Rather than studying a single focus of commitment (i.e., organizations), we believe
39
40 that a better grasp of commitment will be attained if commitment to occupations is also
41
42 included in studies. While commitment theory has been widely tested in other industrial or
43
44 organization settings this study provides evidence that commitment theory is applicable to
45
46 understanding the dynamics of the commitment of teachers and how commitment relates to
47
48 their psychological well-being.
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3
4 Building on these findings, there are some clear practical implications which may
5
6 inform school administrators and teachers themselves. To enhance the psychological
7
8 well-being of Hong Kong teachers, it is essential to nurture a healthy organizational climate
9
10 in schools. Our results demonstrate that commitment to occupation alone is insufficient to
11
12 trigger the psychological well-being of Hong Kong teachers. More importantly, they must feel
13
14 committed to the organization because this strongly influences psychological well-being in the
15
16 workplace. In terms of practice, an understanding of Hong Kong teachers' commitment should
17
18 help inform school administrators on the ways in which multi-dimensions of commitment
19
20 relate to psychological well-being, and using this information consider how they might further
21
22 sustain and/or improve positive teacher commitment.
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

References

- 1
2
3
4
5
6
7 Abd Razak, N., Darmawan, I.N., & Keeves, J. P. (2010). The influence of culture on
8
9 teacher commitment. *Social Psychology of Education, 13*(2), 185-205.
10
11
12 Aelterman, A., Engels, N., Verhaeghe, J. P., Sys, H., Van Petegem, K., & Panagiotou, K.
13
14 (2002). *Development of an instrument to measure well-being among primary and*
15
16 *secondary school teachers*. Report for Flemish department of education.
17
18
19
20
21 Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective,
22
23 continuance and normative commitment. *Journal of Occupational Psychology, 63*, 1-18.
24
25
26
27 Arbuckle, J. L. (2007). AMOS (Version 7) [Computer software]. Chicago: SPSS.
28
29
30 Borg, M. G. (1990). Occupational stress in British educational settings: A review.
31
32
33 *Educational Psychology, 10*, 103–126.
34
35
36 Boyle, G. J., Borg, M. G., Falzon, J. M., & Baglioni Jr., A. J. (1995). A structural model of
37
38 the dimensions of teacher stress. *British Journal of Educational Psychology, 65*,
39
40
41 49–67.
42
43
44 Byrne, B.M. (2010). *Structural equation modelling with AMOS: Basic concepts, applications,*
45
46 *and programming*, 2nd ed. New York: Routledge.
47
48
49
50 Chan, D. W. (2006). Emotional intelligence and components of burnout among Chinese
51
52 secondary school teachers in Hong Kong, *Teaching and Teacher Education, 22*,
53
54
55 1042–1054.
56
57
58
59
60

- 1
2
3
4 Chan, D.W. & Hui, E.K.P. (1995). Burnout and coping among Chinese secondary school
5
6 teachers in Hong Kong, *British Journal of Educational Psychology*, 65, 15–25.
7
8
9
10 Chan, W. Y., Lau, S., Nie, Y., Lim, S., & Hogan, D. (2008). Organizational and personal
11
12 predictors of teacher commitment: The mediating role of teacher efficacy and
13
14 identification with school. *American Educational Research Journal*, 45, 597-630.
15
16
17
18 Choi, T. H., & Tang, K. C. (2009, April). *An exploration of parental choice of secondary*
19
20 *schools in Hong Kong*. Paper presented at the 8th Discourse Power Resistance
21
22 Conference, Manchester, UK.
23
24
25
26
27 Dagenais-Desmarais, V., & Savoie, A. (2011). What is psychological well-being really?
28
29 A grassroots approach from the organizational science. *Journal of Happiness Studies*.
30
31 Advance online publication. Doi: 10.1007/s10902-011-9285-3.
32
33
34
35
36 Dee, J. R., Henkin, A. B., & Singleton, C. A. (2006). Organizational Commitment of
37
38 Teachers in Urban Schools: Examining the Effects of Team Structures. *Urban*
39
40 *Education*, 41(6), 603-627.
41
42
43
44 Dunham, J. & Varma V. (Eds) (1998). *Stress in Teachers: Past present and future*, (London,
45
46 Whurr).
47
48
49
50 Ebmeier, H., (2003). How supervision influences teacher efficacy and commitment: An
51
52 investigation of a path model, *Journal of Curriculum and Supervision*, 18(2), 110-141.
53
54
55
56 Ebmeier, H. & Nicklaus, J. (1999). The impact of peer and principal collaborative
57
58
59
60

1
2
3
4 supervision. *Journal of Curriculum and Supervision*, 14, 351-378.
5
6

7 Education Bureau (2013). *The government of Hong Kong Special Administrative Region*.
8

9 [Data file]. Retrieved May 30, 2013, from
10

11 <http://www.censtat.gov.hk/hkstat/sub/so370.jsp>
12
13

14
15 Eisinga, R., Teelken, C. & Doorewaard, H. (2010). Assessing cross-national invariance of the
16
17 three-component model of organizational commitment: A six-country study of
18
19 European University Faculty. *Cross-Cultural Research*, 44(4), 341-373.
20
21
22

23
24 Engels, N., Aelterman, A., Van Petegem, K., & Schepens, A. (2004). Factors which influence
25
26 the well-being of pupils in Flemish secondary schools. *Educational Studies*, 30(2),
27
28 127–143.
29
30
31

32
33 Firestone, W. A. (1996). Images of teaching and proposals for reform: A comparison of ideas
34
35 from cognitive and organizational research. *Educational Administration Quarterly*, 32,
36
37 209-235.
38
39
40

41
42 Finney, S.J. & DiStefano, C. (2006). Non-normal and Categorical data in structural equation
43
44 modeling. In G. r. Hancock & R. O. Mueller (Hrsg.). *Structural equation modeling: a*
45
46 *second course* (S. 269–314). Greenwich, Connecticut: Information Age Publishing.
47
48
49

50
51 Fischer, R. & Mansell, A (2009). Commitment across cultures: A meta-analytical
52
53 approach. *Journal of International Business Studies*, 40, 1339-1358.
54
55
56
57
58
59
60

- 1
2
3
4 Glazer, S., Daniel, S. C., & Short, K. M. (2004). A cross-cultural study of the relationship
5
6 between organizational commitment and human values. *Human Relations*, 57,
7
8 323-345.
9
10
11
12 Good, T. L., & Brophy, J. (2003). *Looking in classrooms* (9th ed.). Boston, MA: Allyn and
13
14 Bacon.
15
16
17
18 Joolideh, F. & Yeshodhara, K. (2009). Organizational commitment among high school
19
20 teachers of India and Iran. *Journal of Educational Administration*, 47, 127-136.
21
22
23
24 Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement
25
26 among teachers. *Journal of School Psychology*, 43, 495–513.
27
28
29
30 Hambleton, R. K. (2001). The next generation of the ITC test translation and adaptation
31
32 guidelines. *European Journal of Psychological Assessment*, 17(3), 164-172.
33
34
35
36 Henkin, A. B., & Holliman, S. L. (2009). Urban Teacher Commitment: Exploring
37
38 Associations with Organizational Conflict, Support for Innovation, and Participation.
39
40 *Urban Education*, 44(2), 160-180.
41
42
43
44 Helmke, A. (2001). Research on classroom instruction and its effects - shortcomings, dead
45
46 ends, and future perspectives. In F. Salili, C. Y. Chiu, & Y. Y. Hong (Eds.), *Student*
47
48 *motivation: The culture and context of learning* (pp. 335–345). New York, NY: Kluwer
49
50
51
52
53
54
55
56
57
58
59
60
Academie/Plenum Publishers.
- Ho, R. (2006). *Handbook of univariate and multivariate data analysis and interpretation with*

1
2
3
4 SPSS. Chapman & Hall. Taylor & Francis Group.
5

6 Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions,*
7
8
9
10 *and organizations across nations* (2nd Ed.). London: Sage Publications.

11
12 Hofstede, G. 1993. "Cultural Constraints in Management Theories", Academy of
13
14
15 Management Executive, Vol. 7, No. 1, pp.81-94.
16

17
18 Hofstede, G. and Bond, M.H. (1988). The Confucius connection: From cultural roots to
19
20
21 economic growth. *Organizational Dynamics*, 16, 4-21.
22

23
24 Ingersoll, R. (2001). Teacher turnover and teacher shortages: An organizational analysis.
25
26
27 *American Educational Research Journal*, 38, 499-534.
28

29
30 Kyriacou, C. (2001). Teacher Stress: directions for future research. *Educational Review*,
31
32
33 53, 27-35.
34

35
36 Lau, P. S. Y., Yuen, M., & Chan, R. M. C. (2005). Do demographic characteristics make a
37
38
39 difference in teacher burnout in Hong Kong secondary schools? *Social Indicators*
40
41
42 *Research*, 71, 491-516.
43

44
45 MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and
46
47
48 determination of sample size for covariance structure modeling. *Psychological Methods*,
49
50
51 1, 130-149. doi:[10.1037/1082-989X.1.2.130](https://doi.org/10.1037/1082-989X.1.2.130).

52
53
54
55
56
57
58
59
60
Maneesriwongul, W., & Dixon, J. K. (2004). Instrument translation process: A methods
review. *Journal of Advanced Nursing*, 48, 175-186.

- 1
2
3 Markus, H. R. & Kitayama, S. (1991). Culture and the self: Implications for cognition,
4
5 emotion, and motivation. *Psychological Review*, 98, 224–253.
6
7
8 Meyer, J. P., & Allen, N. J. (1990). The measurement and antecedents of affective,
9
10
11 continuance and normative commitment to the organization. *Journal of Occupational*
12
13 *Psychology*. 63, 1-18.
14
15
16 Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and
17
18
19 occupations: Extension of test of a three-component conceptualization. *Journal of*
20
21 *Applied Psychology*, 78, 538-551.
22
23
24 Meyer, J.P., Becker, T.E. & Vandenberghe, C. (2004). Employee commitment and
25
26
27 motivation: A conceptual analysis and integrative model. *Journal of Applied Psychology*,
28
29
30 89, 991-1007.
31
32
33 Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace: Toward a general
34
35
36 model. *Human Resource Management Review*, 11(3), 299–326.
37
38
39 Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective,
40
41
42
43 continuance, and normative commitment to organization: A meta-analysis of
44
45
46 antecedents, correlates, and consequences. *Journal of Vocational Behavior*, 61 (1),
47
48
49 20-52.
50
51
52 Mo, K. W. (1991). Teacher burnout: Relations with stress, personality, and social support.
53
54
55 *Education Journal*, 19, 3–11
56
57
58 Ng, C. & Renshaw, P. (2002). Self-schema, motivation and learning: A cross-cultural
59
60

1
2
3
4 comparison. In D. M. McInerney & S. Van Etten (Eds.), *Sociocultural Influences on*
5
6
7 *Motivation and Learning*, (pp.55-87). Greenwich, CT: Information Age Publishing.

8
9
10 O'Connor P. R., & Clarke, V. A. (1990). Determinants of teacher stress. *Australian Journal*
11
12 *of Education*, 34,41-45.

13
14
15 Park, I. (2005). Teacher Commitment and its Effects on Student Achievement in American
16
17
18 High Schools. *Educational Research and Evaluation*, 11, 461-485

19
20
21 Rhoades, L., Eisenberger, R. & Armeli, S. (2001). Affective commitment to the
22
23
24 organization: The contribution of perceived organizational support. *Journal of Applied*
25
26
27 *Psychology*, 86, 825-836.

28
29
30 Rowan, B., Correnti, R., & Miller, R. J. (2002). What large-scale, survey research tells us
31
32
33 about teacher effects on student achievement: Insights from the prospects study of
34
35
36 elementary schools. *Teachers College Record*, 104, 1525–1567. doi: 10.1111/1467
37
38 -9620.00212

39
40
41 Sezgin, F.(2009b). Relationships between teacher organizational commitment, psychological
42
43
44 hardiness and some demographic variables in Turkish primary schools. *Journal of*
45
46
47 *Educational Administration*, 47(5),630-651.

48
49
50 Shin, H.-S., & Reyes, P. (1991). *Teacher Commitment and Job Satisfaction: Which Comes*
51
52
53 *First?* Paper presented at the Annual Meeting of the American Educational
54
55
56 Research Association, IL, Chicago, USA.

- 1
2
3
4 Skaalvik, E. M. & Skaalvik, S. (2009). Does school context matter? Relations with
5
6
7 teacher burnout and job satisfaction. *Teaching and Teacher Education, 25*, 518-524.
8
9
10 Stoeber, J., & Rennert, D. (2008). Perfectionism in school teachers: Relations with stress
11
12 appraisals, coping styles, and burnout. *Anxiety, Stress, & Coping, 21*, 37-53.
13
14
15 Storey, J. (1995). Human resource management: Still marching on or marching out? In J.
16
17 Storey (Ed.), *Human Resource Management*. London: Routledge.
18
19
20
21 Su, Z. (1993). The study of the education of educators: A profile of teacher education
22
23 students. *Journal of Research and Development in Education 26*(3), 125-132.
24
25
26
27 Su, Z., Hawkins, J. N., Huang, T., & Zhao, Z (2001). Choices and commitment: A
28
29 comparison of teacher candidates' profiles and perspectives in China and the United
30
31 States. *International Review of Education, 47*, 611-635.
32
33
34
35 Titus, L. S. P. & Ora, K. W. Y (2005). Teacher Education. In Bray, M. & Coe, R (Eds.),
36
37
38 *Education and Society in Hong Kong and Macao: Comparative Perspectives on*
39
40
41 *Continuity and Change*. (pp. 73-85). Comparative Education Research Center, The
42
43
44 University of Hong Kong.
45
46
47 Triandis, H. (2001). Individualism-collectivism and personality. *Journal of Personality,*
48
49
50 *69*, 907-924.
51
52
53 Tseng, V. (2004). Family interdependence and academic adjustment in college: Youth from
54
55
56 immigrant and US-born families. *Child Development, 75*, 966-983.
57
58
59
60

- 1
2
3
4 Tsui, K. T., & Cheng, Y. C. (1999). School organizational health and teacher commitment: A
5
6 contingency study with multi-level analysis. *Educational Research and Evaluation, 5*,
7
8 249-268.
9
10
11
12 van de Vijver, F., & Hambleton, R. K. (1996). Translating test: Some practical guidelines.
13
14 *European Psychologist, 1*, 89-99.
15
16
17 van de Vijver, F., & Leung, K. (1997). *Methods and data analysis of comparative research*.
18
19 Thousand Oaks, CA: Sage.
20
21
22
23 van de Vijver, F. J. R., & Tanzer, N. K. (2004). Bias and equivalence in cross-cultural
24
25 assessment: An overview. *European Review of Applied Psychology, 54*, 119-135.
26
27
28
29 Vandenberghe, R. and Huberman, A. M. (1999). *Understanding and preventing teacher*
30
31 *burnout*, Cambridge University Press, Cambridge, England.
32
33
34
35 Weiss, E. M. (1999). Perceived workplace conditions and 1st-year teachers' morale, career
36
37 choice commitment, and planned retention: A secondary analysis. *Teaching and Teacher*
38
39 *Education, 15*, 861-879.
40
41
42
43
44 Wentzel, K. R. (1998). Social relationships and motivation in middle school: The role of
45
46 parents, teachers, and peers. *Journal of Educational Psychology, 90*, 202-209.
47
48
49
50
51
52
53
54
55
56
57
58
59
60
doi:10.1037/0022-0663.90.2.202
Zhue, Y. & Leung, F.K.S. (2011). Motivation and achievement: Is there an East Asian
model? *International Journal of Science and Mathematics Education, 9*: 1189-1212.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

For Peer Review Only

Appendix A

Teacher Commitment Items

Affective commitment to the occupation

1. Being in the teaching profession is important to my self-image
2. I am proud to be in the teaching profession
3. I am enthusiastic about the teaching profession

Continuance commitment to the occupation

1. Changing professions now would be difficult for me to do
2. Too much of my life will be disrupted if I were to change my profession
3. Changing professions now would require considerable personal sacrifice

Normative commitment to the occupation

1. I feel a responsibility to the teaching profession to continue in it
2. Even if it were to my advantage, I do not feel that it would be right to leave the teaching profession now.
3. I am in the teaching profession because of a sense of loyalty to it

Affective commitment to the organization (reversed coded)

1. I do not feel like part of the family at my school
2. I do not feel emotionally attached to this school
3. I do not feel a strong sense of belonging to my school

Continuance commitment to the organization

1. It would be very hard for me to leave my school right now, even if I wanted to
2. Too much in my life would be disrupted if I decided I wanted to leave my school now
3. I feel that I have too few options to consider leaving this school

Normative commitment to the organization

1. This school deserves my loyalty
2. I would not leave my school right now because I have a sense of obligation to the people in it
3. I owe a great deal to my school

Appendix B

Psychological Well-being Items

Interpersonal fit at work

1. I value the people I work with
2. I enjoy working with the people at my job
3. I get along well with the people at my job
4. I feel that I am accepted as I am by the people I work with
5. I have a relationship of trust with the people at my job

Thriving at work

1. I find my job exciting
2. I like my job
3. I am proud of the job I have
4. I find meaning in my work.
5. I have a great sense of fulfillment at work

Feeling of competency

1. I feel confident at work
2. I feel effective and competent at work
3. I feel that I know what to do with my job
4. I know my value as a worker
5. I know I am capable of doing my job

Perceived recognition at work

1. I feel that my work efforts are appreciated
2. I know that people believe in the projects I work on
3. I feel that the people I work with recognize my abilities
4. I feel that I am a full member of my school
5. I feel that my work is recognized

Desire for involvement at work

1. I want to take initiative in my work
2. I care about the good functioning of my school
3. I like to take on challenges in my work
4. I want to contribute to achieving the goals of my school
5. I want to be involved in my school beyond my work duties

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

For Peer Review Only

Table 1
Descriptive statistics, internal consistency reliability, and zero-order correlations among the variables

	1	2	3	4	5	6	7	8	9	10	11
1. Affective commitment (Org)	-	.48***	.11**	.28***	.43***	-.44***	.34***	.45**	-.13***	.03	-.01
2. Normative commitment (Org)		-	-.24***	.56***	.87***	.17***	.75***	.89***	.55***	.54***	.65***
3. Continuance commitment (Org)			-	-.62***	-.40***	-.64***	-.57***	-.40***	-.56***	-.24***	-.45***
4. Affective commitment (Occ)				-	.68***	.31***	.80***	.62***	.41***	.46***	.47***
5. Normative commitment (Occ)					-	.31***	.81***	.93***	.59***	.66***	.66***
6. Continuance commitment (Occ)						-	.34***	.27***	.59***	.27***	.60***
7. Interpersonal fit at work							-	.77***	.63***	.53***	.68***
8. Thriving at work								-	.50***	.51***	.63***
9. Feeling of competency									-	.46***	.65***
10. Perceived recognition at work										-	.57***
11. Desire for involvement at work											-
Mean	4.58	5.24	3.61	4.62	5.09	4.29	4.85	5.13	4.73	4.62	4.72
SD	1.32	.69	1.21	.77	.67	.69	.79	.75	.60	.63	.59
Cronbach's alpha	.80	.67	.73	.85	.80	.75	.90	.92	.88	.88	.81

Note: Bolded means are the two highest ranked means for commitment and psychological well-being; * $p < .05$, ** $p < .01$, *** $p < .001$

Table 2

Summary of hierarchical regression predicting dimensions of psychological well-being (standardized beta coefficients are shown)

		Psychological well-being				
		Interpersonal fit at work	Thriving at work	Feeling of competency	Perceived recognition at work	Desire for involvement at work
		β	β	β	β	β
Step 1						
	Gender	-.061	-.051	-.087*	.013	-.074*
	Income	-.021	.101*	-.003	-.020	-.018.
	Highest education	.090*	.058	.066	.048	.045
Step 2						
	Gender	.003	.005	-.031	.046	-.022
	Income	-.059**	.061	-.004	-.026	-.026
	Highest education	.047**	.009	.045*	.025	.017
	Affective commitment (Org)	.102***	.082***	.414***	-.278***	-.350***
	Normative commitment (Org)	.599***	.794***	.655***	.661***	.764***
	Continuance commitment (Org)	-.441***	-.221***	.363***	-.057	.236***
Step 3						
	Gender	-.015	.008	-.014	.028	.008
	Highest education	-.051**	.039**	-.023	-.053*	-.026
	Income	.035*	-.006	.039	-.001	.012
	Affective commitment (Org)	.026	.058**	.351***	-.433***	-.148***
	Normative commitment (Org)	.301***	.374***	.466***	-.033	.512***
	Continuance commitment (Org)	-.202***	-.129***	.371***	.142***	-.004
	Affective commitment (Occ)	.339***	-.069***	.217***	.120**	-.011
	Normative commitment (Occ)	.232***	.569***	.307***	.892***	.173***
	Continuance commitment (Occ)	.001	.007	.086*	-.130**	.394***
Step 1 change in R ²		.013*	.018**	.013*	.003	.008
Step 2 change in R ²		.729***	.818***	.609***	.360***	.602***
Step 3 change in R ²		.072***	.062***	.034***	.182***	.072***
Total R ²		.814	.899	.656	.544	.682

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 3
Summary of hierarchical regression predicting dimensions of psychological well-being (standardized beta coefficients are shown)

		Psychological well-being				
		Interpersonal fit at work	Thriving at work	Feeling of competency	Perceived recognition at work	Desire for involvement at work
		β	β	β	β	β
Step 1						
	Gender	-.061	-.051	-.087*	.013	-.074
	Income	-.021	.101*	-.003	-.020	-.018
	Highest education	.090*	.058	.066	.048	.045
Step 2						
	Gender	-.023	-.002	-.003	.057*	.012
	Income	-.051**	.034	-.025	-.065*	-.045*
	Highest education	.030	-.012	.031	-.001	.003
	Affective commitment (Occ)	.440***	-.007	.075*	-.008	-.047
	Normative commitment (Occ)	.497***	.928***	.502***	.650***	.566***
	Continuance commitment (Occ)	.059**	.001	.458***	.080**	.443***
Step 3						
	Gender	-.015	.008	-.014	.028	.008
	Highest education	-.051**	.039*	-.023	-.053*	-.026
	Income	.035*	-.006	.039	-.001	.012
	Affective commitment (Occ)	.339***	-.069***	-.217***	.120**	-.011
	Normative commitment (Occ)	.232***	.569***	.307***	.892***	.173***
	Continuance commitment (Occ)	.001	.007	.086*	-.130**	.394***
	Affective commitment (Org)	.026	.058**	-.351***	-.433***	-.148***
	Normative commitment (Org)	.301***	.374***	.466***	-.033	.512***
	Continuance commitment (Org)	-.202***	.129***	-.371***	.141***	.004
	Step 1 change in R ²	.013*	.018*	.013	.003	.008
	Step 2 change in R ²	.768***	.840***	.524***	.445***	.610***
	Step 3 change in R ²	.033***	.040***	.119***	.097***	.064***
	Total R ²	.814	.899	.656	.544	.682

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4
Summary of standardized beta coefficients ranking

Ranking	Psychological well-being				
	Interpersonal fit at work	Thriving at work	Feeling of competency	Perceived recognition at work	Desire for involvement at work
Rank 1	ACOcc	NCOcc	NCOrg	NCOcc	NCOrg
Rank 2	NCOrg	NCOrg	CCOrg	ACOrg (-)	CCOcc
Rank 3	NCOcc	CCOrg (-)	ACOrg	CCOrg	NCOcc
Rank 4	CCOrg (-)	ACOcc	NCOcc	CCOcc (-)	ACOrg (-)
Rank 5	HEd (-)	ACOrg	CCOcc	ACOcc	
Rank 6	Income	HEd	ACOcc	HEd	

Note: Affective commitment to the organization = ACOrg, Normative commitment to the organization = NCOrg, Continuance commitment to the organization = CCOrg; Affective commitment to the occupation = ACOcc, Normative commitment to the occupation = NCOcc, Continuance commitment to occupation = CCOcc; Highest education = HEd

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49

For Peer Review Only