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AUTHOR Yeung, Ka Wah; Watkins, David
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ABSTRACT

Scales were developed to assess both the custodial and humanistic aspects of student control ideology. Research based on the responses of about 500 Hong Kong teacher education students showed responses to these scales were of adequate internal consistency, and confirmatory factor analysis supported two independent scales rather than a continuum from custodialism to humanism as assumed in the Pupil Control Ideology form (Willower et al., 1967), the instrument most widely used in this area of research. Further support for the differential validity of these scales came from evidence that self-perceived professional self-esteem as a teacher, teaching abilities, and classroom management skills were much more closely associated with the humanistic rather than custodial view of student control, but it was the latter view that was most affected by teaching practice in Hong Kong. (Contains 62 references.) (Author/SM)

Assessing Pupil Control Ideology in the Context of Hong Kong Teacher Education

Ka Wah Yeung[1]

The Hong Kong Institute of Education

David Watkins

The University of Hong Kong

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ABSTRACT

Scales were developed to assess both the custodial and humanistic aspects of pupil control ideology. Research based on the responses of about 500 Hong Kong teacher education students showed responses to these scales were of adequate internal consistency and confirmatory factor analysis supported two independent scales rather than a continuum from custodialism to humanism as assumed in the Pupil Control Ideology form (Willower et al. 1967), the instrument most widely used in this area of research. Further support for the differential validity of these scales came from evidence that self-perceived professional self-esteem as a teacher, teaching abilities, and classroom management skills were much more closely associated with the humanistic rather than custodial view of pupil control but it was the latter view that was most affected by teaching practice in Hong Kong.

Introduction

Being able to keep control in the classroom is an important concern of teacher education (Goodman, 1988; Hungerman, 1984; Newton & Brathwaite, 1987; Reed, 1989; Veenman, 1984; Wesley & Vocke, 1992; Wilson, 1985). Indeed many student teachers have found difficulty in coping with classroom misbehaviour during the instructional process (Purcell & Seiferth, 1981) and perceived classroom discipline problems as a major source of stress for student teachers (Abernathy, Manera & Wright, 1985; Feshbach & Campbell, 1978; Sullivan, 1979; Yeung, 1992). Brophy (1988) stressed that one of the roles of teacher education is to clarify preservice teachers' existing misconceptions of authority and classroom control that hinder effective classroom management. Within the arena of classroom discipline research, the Pupil Control Ideology Form (PCI, Willower, Eidell & Hoy, 1967) has been used widely to examine teachers' management attitudes towards pupils. However, all too often research involving the PCI has taken the construct validity of this scale for granted, relying on validation procedures undertaken more than thirty years ago. Moreover, there is limited evidence of cross-cultural validity of the PCI. This study will first critique the PCI scale and then attempt to develop and validate a more adequate scale that would be appropriate for the Hong Kong context.

The Pupil Control Ideology Form (PCI)

The PCI, developed by Willower et al. (1967), consists of 20 Likert-type items that measure pupil control ideology on a humanistic-custodial continuum. Yet, a careful examination of the scale shows that 18 of its 20 items are custodial in orientation. The two qualities involved in the continuum can be conceptualised in brief as follows. A humanistic teacher believes that pupils are trustworthy and capable of self-discipline. Such a teacher's

attitudes towards pupils would be described in terms such as acceptance, permissiveness, and empathetic understanding. On the other hand, a custodial teacher sees pupils as irresponsible persons, emphasises the maintenance of order, and holds a punitive, moralistic attitude. As reported by Willower et al. (1967), the split-half reliability coefficients for the PCI scale ranged from .91 to .95 and the PCI scores were positively correlated with the building principals' judgements about the teachers' pupil control ideologies. However, some studies, such as Graham, Benson and Henry (1985), and Hoy and Woolfolk (1990), reported the Alpha reliability coefficient of responses to the PCI could be as low as about .70 (see Table 1).

Graham, Halpin, Harris, and Benson (1985), while examining the construct validity of the PCI scale with a sample of student teachers, pointed out that no factor analytic studies of the scale had been reported in the literature. They reported that exploratory and confirmatory factor analysis showed that a 10-item, one factor model provided a better fit to the data. The Alpha reliability coefficient was .94 for the ten items. Similarly, the study of Graham et al., (1985) also suggested that the PCI was unidimensional with respect to ten of these original twenty items. Payne and Richardson (1988) found that a structure of as many as nine factors could be extracted when the PCI scale was examined by means of factor analysis with a sample of Caribbean teachers. Despite such findings, most researchers have assumed the reliability and validity of the PCI in their own studies (see Table 1).

As the context of this study is teacher education, we provide a brief description of PCI studies within this context (see Table 1). Quite a few studies have suggested that student teachers become more custodial after teaching practice (Glasnapp & Guenther, 1973; Hoy, 1968; Hoy & Rees, 1977; Hoy & Woolfolk, 1990; Killian & McIntyre, 1986; McIntyre, 1983; Willower, 1977). Harty, Anderson, and Enochs (1984) reported that preservice elementary teachers with early and continuous field experience were significantly more custodial than those without early field experience. The studies of Jones (1982) and Jones and Harty (1980)

found that secondary student teachers became more custodial during student teaching, whereas the elementary student teachers in Jones's study did not experience such a change. The results of Killian and McIntyre (1986) indicated that the elementary field experience student teachers were in general more humanistic in their pupil control ideology than their secondary counterparts. However, the elementary student teachers only became more humanistic over the course of their first field experience, levelled out during the second field experience, and shifted back to being more custodial during their student teaching semester. Given the few PCI items focusing on the humanistic pole, one could question the validity of claims about this aspect of pupil control ideology, however.

Contrary to the previously mentioned studies, a number of studies reported that some student teachers did not become more custodial in their approach during their participation in student teaching (Silvernail & Costello, 1983; Zeichner & Grant, 1981), and that some became less authoritarian during the course of teacher training (Gibson, 1972). Zeichner and Grant (1981) supported the arguments of Lortie (1973) and others that student teaching played little effect on changing student teachers' ideas about teaching, and that student teachers began the teaching experience with their custodial views on pupil control and retained the views at the end of the practice.

According to the study of Halpin, Halpin, and Harris (1982), the sample of humanistically oriented teacher trainees tended to be emotionally stable, expedient, happy-go-lucky, imaginative, venturesome, outgoing, relaxed, and self-assured in personality, and had a high self-concept. By contrast, the sample of authoritarian teacher trainees were more affected by feelings, conscientious, sober, practical, shy, reserved, tense, apprehensive, and had a low self-concept.

In conclusion, it is surprising to find that the dimensionality of the PCI (Willower et al., 1967) was not tested till the Graham et al. studies in 1985, which confirmed that 10 of the 20

items of the scale formed one valid dimension. The PCI has been widely used by studies to investigate student teachers' or teachers' perceptions of class control. All too frequently subsequent studies have taken for granted the reliability and validity of PCI as claimed more than 30 years ago on rather dubious grounds. To what degree this may have led to invalid findings in such an important aspect of teacher education is important to consider.

INSERT TABLE 1 ABOUT HERE

Empathy and acceptance

As mentioned earlier, a major weakness of the PCI scale is a bias towards custodialism since there are only two items measuring the quality of humanism. To retain a balance in conveying the measurement of the humanistic-custodial continuum and in particular to test the validity of such a continuum, there is a need to expand items for assessing the humanistic pole. Empathy and acceptance, particularly among the ingredients inherent in the operational definition of humanism discussed earlier, can be considered for further conceptual refinement of the scale.

The properties and measurement of empathy have received much attention from researchers. Nonetheless, reported studies in the topic have decreased since the early 1980s (Duan & Hill, 1996). Three psychological perspectives have contributed to the understanding of the construct of empathy (Gladstein, 1983): the counselling/psychotherapeutic perspective (e.g. Barrett-Lennard, 1962, 1976; Gladstein, 1983; Rogers, 1951, 1957, 1962; Truax & Carkhuff, 1967); the social psychological perspective (e.g. Dymond, 1949; Eisenberg & Miller, 1987; Hogan, 1969; Stotland, 1969); and the developmental perspective (e.g. Feshbach & Roe, 1968). Nonetheless, Gladstein (1983) argued that these three streams of thoughts

identify two major types of empathy: 1) role taking or cognitive empathy- seeing as the other person does; and 2) emotional contagion or affective empathy- feeling the same way as another person. Also, researchers have employed a range of measures, such as self-reports, reports of others, observer ratings, and physiological ratings, to conduct empathy research. It is clear that the range of views of how empathy is defined and measured has led to confusion in research findings in the area (Duan & Hill, 1996; Gladstein, 1983).

The Accurate Empathy Rating Scale (Truax, 1966), which has been widely used in empathy research, is designed to assess the extent to which a therapist accurately communicates his sensitive understanding of a client's obvious as well as underlying emotions. As reported in Truax and Carkhuff (1967), the scale had a moderate to high degree of reliability in 28 studies. However, Truax's (1966) scale has been criticised in terms of its reliability and validity (Chinsky & Rappaport, 1970).

The results of factor analysis of an empathy scale, developed by Grief and Hogan (1973), suggested that empathetic persons were characterised by a patient and forbearing nature, by affiliative but socially ascendant tendencies, and by liberal, humanistic, and religious attitudes. Moreover, joint factor analysis of the California Psychological Inventory (CPI; Gough, 1969) with this empathy scale showed the latter was related particularly to measures of interpersonal effectiveness and social adequacy, which were defined by dominance, capacity for status, sociability, social presence, and self-acceptance. In a study with a sample of student teachers, Hughes and Hukill (1982) showed that the students with high scoring on empathy, self-esteem, and flexibility were likely to report being satisfied with their teaching experience and performance.

When we empathise with others, we at the same time consciously or unconsciously show our acceptance of them to some degree. Interestingly on the other hand, however, if we accept the behaviour of a person, we may lack the ability to demonstrate empathetic responses

to that person, who is desperately seeking empathetic understanding from us. Furthermore, we may wonder whether accepting certain aspects of others will lead to accepting those similar aspects of ourselves, or vice versa. These two attitudes may not always be consistent with each other, and undoubtedly they may be contradictory in some instances. For example, an individual who has stringent expectations of others may be lenient with himself. The following reviews studies concerning the relationship between self-acceptance and acceptance of others.

Berger (1952) constructed two Likert-type scales for measuring the variables of acceptance of self and acceptance of others, which were an abridged and a modified version of the scales developed by Sheerer (1949). The reliabilities for the Berger's (1952) scales ranged from 0.75 to 0.89 for the self-acceptance scale and from 0.78 to 0.88 for the acceptance of others scale. Berger concluded that there was a positive correlation between acceptance of self and acceptance of others.

Based on Berger's Likert-type Self-Acceptance and Acceptance of Others Scales and the Pupil Control Ideology Form (Willower, Eidell & Hoy, 1967), the results of Brenneman (1974) indicated that self-acceptance and acceptance of others of school teachers were significantly and positively correlated and that there was a significant negative correlation between teacher acceptance of others and pupil control ideology. Hence, it was suggested that a positive relationship existed between teacher acceptance of others and their humanism in pupil control ideology. Christensen (1960) provided evidence to support the idea that it would be possible for a warm (accepting and empathetic) teacher to be either permissive or directive in teaching. Conversely, a harsh teacher might be either permissive or directive.

A number of studies have been conducted concerning the attitudes towards acceptance of self and others of student teachers. Crane (1974) showed that there was a significant relationship between the student teachers' attitudes towards acceptance of self and acceptance of others and their job satisfaction in teaching. Burns (1976) found that student teachers who

preferred a personalised unstructured teaching method accepted themselves and others in a positive manner. On the other hand, those students who preferred a more formal, structured, and less personalised teaching approach tended to possess less favourable attitudes to others and themselves. In another study, Burns (1992) indicated that a personal growth workshop helped third year teacher training students become more able to accept themselves and others positively, to cope with stress, to make decisions, to feel secure in themselves, and to feel in control of events.

Aims of the study

The aims of this study were to examine the measurement of pupil control ideology. In particular, the following issues were addressed:

1. How should the relationship between custodialism and humanism of class discipline management should be conceptualised? Possibilities include one single bipolar dimension (as in the PCI), two independent dimensions, or two related dimensions.
2. As items of the PCI are weighted towards custodialism, items measuring humanism in terms of empathy and acceptance were developed. This allowed an adequate test of the dimensionality of custodialism and humanism envisaged in (1).
3. A number of procedures were utilised to provide further evidence of the dimensionality of custodialism and humanism. The earlier literature review suggests that student teachers' relational ideologies (custodialism, humanism, empathy, and acceptance of self and others) are related to their self-concepts, teaching competencies, and class management (Brenneman, 1974; Christensen, 1960; Crane, 1974; Halpin, Halpin & Harris, 1982; Hughes & Hukill, 1982). It is hypothesised that custodialism and humanism each has its distinctive relationships with professional self-esteem as a teacher, and the abilities of student teachers for maintaining class discipline and enhancing learning. It is also expected

that there would be differential effects of teaching practice on the development of humanism and custodialism as these two dimensions are assumed to be independent of each other to some extent.

Methodology

The sample

The effective sample size of this research, consisted of 573 and 475 student teachers of a full-time three-year course at the four colleges of education in Hong Kong, who respectively participated in two psychological testing sessions that took place before and after teaching practice during the academic year (1993-94).

The instruments

The first three scales, as described below, were administered before and after teaching practice, while the other two scales were given only after teaching practice. In each test administration, a Chinese version of the instruments, translated from an English version by a professional translator, was distributed to the subjects.

1. Custodial Control Scale (CCS)

The initial CCS, which was administered to a sample of student teachers in the first pilot test in 1991, consisted of 18 items, of which 10 items were adopted from the PCI form (Willower et al., 1967) following the research results of Graham et al. (1985). That scale was meant to measure the properties of custodialism and humanism along a bipolar continuum. In the pilot test responses to the CCS were of barely adequate internal consistency: an Alpha reliability coefficient of .55. Then, those items with corrected item-total correlations below .15 were excluded, and subsequently only 11 items, of which nine belonged to the PCI, were retained in the second pilot testing.[1] One item from the PCI scale was deleted. In the second pilot testing, six new items together with the eleven retained items were validated. These results also indicated that the CCS needed further construct refinement, though the Alpha coefficient increased to .65. Three PCI items were deleted subsequent to this test (see Table 2).

INSERT TABLE 2 ABOUT HERE

For the main study, 14 new items were constructed and these items were validated along with the items adopted from the second pilot test. The eventual 10-item CCS measures the extent that student teachers emphasise classroom rules, order, discipline and sanctions for controlling pupils' behaviour (see Table 2 for CCS items). Although the CCS only follows the rationale of custodialism as per the Pupil Control Ideology (PCI) (Willower et al., 1967), only one out of the initially selected 10 PCI items was retained in the CCS scale.[2]

2. Humanism Scale (HUS)

   The 12-item HUS was developed to assess student teachers' humanistic beliefs which are related to their empathetic understanding, respect, acceptance of individual differences, and trust in pupils (see Table 3 for the descriptions of the HUS items).

3. Global Professional Self-Esteem (GPS)

   This ten-item GPS assesses student teachers' overall feelings and evaluations about their suitability and worth as a teacher.

4. Adequacy of student teaching abilities (TABILITY)

   This dimension includes 24 items for measuring student teachers' self-perceived adequacy of pedagogical knowledge and skills.

5. Class discipline and management (CLASSMAN)

   This dimension consists of seven items that measure the extent to which student teachers feel that they are capable of maintaining class discipline and that their pupils find their teaching interesting, respect them, and are co-operative in learning.

Within-construct validation procedures

Two types of factorial analysis were used to validate the previously mentioned scales of GPS, HUS, PCS, TABILITY, and CLASSMAN: Exploratory factor analysis and confirmatory factor analysis. The scales were examined separately except that HUS and PCS were combined to test their dimensionality by the time confirmatory factor analysis was carried out. Principal axis factoring and direct oblimin rotation using SPSSX (1988) were selected to arrive at solutions for explicating the meaning of the construct for each scale. Any item with a factor loading greater than .35 was considered to define a factor.

To test the validity of the scales derived through the exploratory approach, confirmatory factor analyse were then conducted. The raw data was processed by means of

the PRELIS 2 program (Jöreskog and Sördom, 1993a) to produce a correlation matrix for LISREL analysis (Jöreskog and Sördom, 1993b). The maximum likelihood (ML) method was selected to estimate parameters. A non-significant chi-square together with the goodness-of-fit indices - the goodness of fit index (GFI), the comparative fit index (CFI) and the Critical N were selected for evaluation of model fit. When the GFI and CFI approach the value of 1.0, and the value of Critical N is greater than 300, these indicators would suggest an adequate model fit. The root mean square residue (RMR) was also reported to indicate the average size of the residues for the discrepancies between the sample covariance matrix and population covariance matrix.

The Cronbach Alpha coefficient was chosen to examine the internal consistency of responses to the scales. Besides assessing reliability of a whole scale, the contribution of each item to the scale was determined by means of a corrected item-total correlation. Items with a corrected item-total correlation greater than .20 would be considered for further construct validation.

Results

Table 4 provides a brief summary of the reliability and principal axis factoring for the validation of the five scales – Global Professional Self-Esteem (GPS), Custodial Control (CCS), Humanism (HUS), Adequacy of Student Teaching Abilities (TABILITY), and Class Discipline and Management (CLASSMAN). The responses to the scales were adequately reliable, with Alpha coefficients ranging from .72 to .93 and corrected item-total correlations for each item exceeded .22. Factor eigenvalues for each scale, under the assumption of a unidimensional factor structure, explained more 40% of the total variance. From inspection of the data in Table 5, it is clear that confirmatory factor analysis results supported the unidimensionality of the GPS, TABILITY, AND CLASSMAN scales.

INSERT TABLES 4 AND 5 ABOUT HERE

As regards the Custodial Control Scale (CCS), it should be noted that eight of the nine initially selected PCI items were deleted due to their low corrected item-total correlations and factor loadings. The Alpha coefficients for responses to CCS in both pre- and post-tests were above .70 and their corrected item-total correlations ranged from .22 to .54. Responses to the Humanism items showed Alpha coefficients of .78 and .80 at pre- and post-testing, respectively, and their corrected item-total correlations ranged from .30 to .58.

For the confirmatory factor analysis, the items of CCS and HUS were combined in order to check the independence of these two constructs. One-factor and two-factor models were tested. The one-factor model failed to converge indicating that this model was an inadequate fit to the data. However, the two-factor solution demonstrated a good fit to the data and the solution was adopted (see Table 6). According to the two-factor model, the items 1 to 10 and 11 to 22 loaded on the latent variables of custodial control and humanism, respectively.

Correlations between the CCS and HUS scales and measures of professional self-esteem and self-perceptions of teaching abilities and class management are shown in Table 7. It is clear that relatively substantial (.37 and above) positive correlations were found with HUS but much lower (-.21 and below) but statistically significant negative correlations were found for CCS.

The pre- and post-teaching practicum means on the custodial and humanistic scales are shown in Table 8. T-tests confirmed that the students became more custodial in their beliefs about classroom management after the practicum but there was no significant change in their

humanistic beliefs.

INSERT TABLES 7 AND 8 ABOUT HERE

Discussion

Responses to the Professional Self-Esteem, Custodial Control, Humanism, Class Discipline and Management, and Adequacy of Student Teaching Abilities scales supported their internal consistency and unidimensionality. Over a series of testing only one out of the 10 items of the PCI form (Willower et al., 1967), which had been selected on the basis of Graham, Halpin, Harris and Benson (1985) study, was finally retained for the construction of the present CCS. This suggested that the PCI may not be suitable for assessing the views of pupil control of student teachers in Hong Kong.

The development of the CCS and HUS scales for this study was based on the rationale of the Pupil Control Ideology Form (PCI, Willower et al., 1967), which suggested that the scale tapped a custodial-humanistic continuum. However, the findings of this research strongly suggested that custodial and humanistic dimensions of the student teachers are independent of another. Firstly, the confirmatory analysis for the scales CCS and HUS supported a model of two factors (see Table 4). Secondly, the CCS and HUS had low correlations of -.28 and of -.26 at the pre- and post-tests, respectively. Thirdly, the HUS showed a stronger relationship with the variables Global Professional Self-Esteem, Adequacy of Student Teaching Abilities (TABILITY), and Class Discipline and Management than the CCS. Lastly, over the period of teaching practice these student teachers became more custodial but there was little change in their humanism. Hence, the changes in custodialism and humanism could not only be observed independently but also be compared. So all these observations question the contention that the

attitudes of custodial control and humanism should be measured along the same continuum as suggested by the Pupil Control Ideology Form (Willower et al., 1967). It can be argued that a teacher who is custodial in class management can simultaneously be humanistic, or vice versa (Christensen, 1960). This may be particularly true in a Chinese context where the concepts of being kind and strict are not seen as contradictory. The two attitudes being bipolar along a continuum would undermine the possible co-existence of the two qualities, as the measurement tends to make discrimination on either a custodial or humanistic dimension. After all, even if the ten PCI items, as validated by the Graham et al.'s (1985) study, are adopted in studies, the perceptions of pupil control ideology can best be discriminated along a custodial dimension.

It is likely that humanism, as an expression of empathy and acceptance, would be a factor in a student teacher's capability of developing a good teacher-pupil relationship. According to the results of this study, that quality of teacher-pupil relationship may place a significant role, directly or indirectly, in developing student teachers' professional self-esteem as well as their self-perception of their abilities for student teaching and for maintaining a classroom environment for learning. On the other hand, a sense of custodial control may reflect the capability of keeping pupils under control in learning as well as a lack of security and confidence in management of learning. It is postulated that the contradictory hidden messages of pupil control operating at the same time result in a weak relationship between pupil control and the variables of professional self-esteem, student teaching abilities, and class discipline and management. It is the diffidence and lack of security, however, that becomes relatively more salient as the CCS was negatively correlated, ultimately, with the professional self-esteem and instructional abilities.

This study has shown that the PCI (Willower et al., 1967) may not be a reliable and valid measure for tapping the student teachers' perceptions of custodialism and humanism. An

inspection of the deleted PCI items subsequent to the second pilot testing (see Table 2), suggests that these items possess a underlying message relating to some sense of pupil control ideology. However, changes in educational thoughts and teaching approaches over the last thirty years, since the publication of PCI, may not warrant such an assumption. Nowadays, Hong Kong student teachers, under the influence of prevailing Western traditions, have become more client-centred, democratic, and open. As such, they could have responded without an implicit message of custodialism to the deleted PCI items, such as "Pupils often misbehave in order to make the teacher look bad" and "Being friendly with pupils often leads them to become familiar." Furthermore, it has been a usual practice for the Hong Kong school teachers and student teachers to spend time both in academic preparation and child guidance. Thus, it would be inevitable that the item "Too much pupil time is spent on guidance and activities, and too little on academic preparation" bears little association with variations in pupil control ideology. On the other hand, the items retained for the Custodial Control Scale seemed to imply direct measurement in accordance with the defined characteristics of the scale.

This research succeeded in devising two new scales for measuring custodialism and humanism with satisfactory internal consistency and with-in construct validity suitable for use with Hong Kong student teachers. Further studies are required to test if this validation result can be generalised to different samples of teacher trainees and teachers. In particular, further research is needed to test these sakes in a Western educational context.

Conclusions

It appears that at least in the context of Hong Kong, humanistic and custodial attitudes have their own distinctive properties and consequences and hence should be differentiated as belonging to two separate, independent dimensions. This distinction is something that further

research needs to take seriously.

Too often in the past, researchers have relied on the Pupil Control Ideology form without checking on its reliability and validity. We would suggest that further Western research should test the validity of the PCI and its underlying dimensional assumptions. Further Hong Kong research can use the scales developed in this research with some confidence. Further research in this area seems warranted as it seems that teaching practice has an impact on the student teacher's view of custodial control but it is humanistic attitudes which are closely associated with the self-confidence, teaching abilities, and management skills of our future teachers.

NOTES

1. The initial attempt was meant to retain as many items as possible for further validation. Thus the criterion for corrected item-total correlation was slightly relaxed.

2. For further details of the instrument development and validation see Yeung (1997).

References

Abernathy, S., Manera, E., & Wright, R.E. (1985) What stresses student teachers most? *Clearing House, 58(8)*, pp. 361-62.

Abu-Saad, I & Hendrix, V.L. (1993) Pupil control ideology in a multicultural society: Arab and Jewish teachers in Israeli elementary schools, *Comparative Education Review, 37(1)*, pp. 21-30.

Agne, K.J., Greenwood, G.E., & Miller, L.D. (1994) Relationships between teacher belief systems and teacher effectiveness, *Journal of Research and Development in Education, 27(3)*, pp. 141-152.

Barrett-Lennard, G.T. (1962) Dimensions of therapist response as causal factors in therapeutic change, *Psychological Monographs, 76, No. 43* (Whole No. 562).

Barrett-Lennard, G.T. (1976) Empathy in human relationships: Significance, nature and measurement, *Australian Psychologist, 11(2)*, pp. 173-184.

Berger, E.M. (1952) The relation between expressed acceptance of self and expressed acceptance of others, *The Journal of Abnormal and Social Psychology, 47(4)*, pp. 778-784.

Brenneman, N O. (1974) *Teacher self-acceptance, acceptance of others, and pupil-control ideology*, Doctor of Education dissertation, The Pennsylvania State University.

Brophy, J. (1988) Educating teachers about managing classrooms and students, *Teaching and Teacher Education, 4(1)*, pp. 1-18.

Burns, R.B. (1976) Preferred teaching approach in relation to self and other attitudes, *Durham Research Review, 36*, pp. 1079-1085.

Chinsky, J.M. & Rappaport, J. (1970) Brief critique of the meaning and reliability of "Accurate Empathy" ratings, *Psychological Bulletin, 73(5)*, pp. 379-382.

Christensen, C.M. (1960) Relationships between pupil achievement, pupil-need, teacher warmth, and teacher permissiveness, *Journal of Educational Psychology, 51(3)*, pp. 169-174.

Crane, C. (1974) Attitudes towards acceptance of self and others and adjustment to teaching, *British Journal of Educational Psychology, 44(1)*, pp. 31-36.

Duan, C. & Hill, C.E. (1996) The current state of empathy research, *Journal of Counseling Psychology, 43(3)*, pp. 261-274.

Dymond, R.R. (1949) A scale for the measurement of empathic ability, *Journal of Consulting Psychology, 13*, pp. 127-133.

Eisenberg, N. & Miller, P.A. (1987) The relation of empathy to prosocial and related behaviors, *Psychological Bulletin, 101(1)*, pp. 91-119.

Enochs, L.G., Scharmann, L.C., & Riggs, I.M. (1995) The relationship of pupil control to preservice elementary science teacher self-efficacy and outcome expectancy, *Science Education, 79(1)*, pp. 663-75.

Feshbach, N.D. & Campbell, M. (1978) *Teacher stress and disciplinary practices in schools: A preliminary report*, Paper presented at the Annual Meeting of the American Orthopsychiatric Association. (55th San Francisco, California, March 27-31, 1978).

Feshbach, N.D. & Roe, K. (1968) Empathy in six- and seven-year-olds, *Child Development, 39*, pp. 133-145.

Gibson, D.R. (1972) Professional socialization: The effects of a college course upon role conceptions of students in teacher training, *Educational Research, 14(3)*, pp. 213-219.

Gladstein, G.A. (1983) Understanding empathy: Integrating counseling, developmental, and social psychology perspectives, *Journal of Counseling Psychology, 30(4)*, pp. 467-482.

Glasnapp, D.R. & Guenther, J.E. (1973) Humanistic and skills orientation change during student teaching, *College Student Journal, 7*, pp. 43-47.

Goodman, J. (1988) Constructing a practical philosophy of teaching: A study of preservice teachers' professional perspectives, *Teaching and Teacher Education, 4(2)*, pp. 121-137.

Graham, S., Benson, J., & Henry, N. (1985) An analysis of the dimensionality of the pupil control ideology scale, *Educational and Psychological Measurement, 45*, pp. 889-896.

Graham, S., Halpin, G., Harris, K., & Benson, J. (1985) A factor analysis of the pupil control ideology scale, *Journal of Experimental Education, 53*, pp. 202-206.

Halpin, G., Halpin, G., & Harris, K. (1982) Personality characteristics and self-concept of preservice teachers related to the pupil control orientation, *Journal of Experimental Education, 50(4)*, pp. 195-99.

Harty, H., Andersen, H.D. & Enochs, L.G. (1984) Science teaching attitudes and class control ideologies of preservice elementary teachers with and without early field experience, *Science Education, 68(1)*, pp. 53-59.

Hogan, R. (1969) Development of an empathy scale, *Journal of Consulting and Clinical Psychology, 33*, pp. 307-316

Hoy, W.K. (1968) The influence of experience on the beginning teacher, *School Review, 76*, pp. 312-321.

Hoy, W.K. & Rees, R. (1977) The bureaucratic socialization of student teachers, *Journal of Teacher Education, 28(1)*, pp. 23-26.

Huges, R., Jr. & Hukill, H. (1982) *Participant characteristics, change, and outcomes in preservice clinical teacher education,* ERIC Document 240096

Hungerman, A.D. (1984) *Competency in classroom management: conflicts in assessmen,* Paper presented at the Annual Meeting of the Association of Teacher Educators (64th, New Orleans, LA, January 28-February 1, 1984). ERIC Document 244951

Jones, D.R. (1982) The influence of length and level of student teaching on pupil control ideology, *The High School Journal, 65(7)*, pp. 220-225.

Jones, D.R. & Harty, H. (1980) Secondary school student teacher classroom control ideologies and amount of engaged instructional activities, *The High School Journal, 64(1),* pp. 13-15.

Jöreskog, K.G. & Sördom, D. (1993a) PRELIS 2 User's Guide (N.J., Scientific Software International).

Jöreskog, K.G. & Sördom, D. (1993b) LISREL 8 User's Guide (N.J., Scientific Software International).

Killian, J.E. & McIntyre, D.J. (1986) *Preservice students' attitudes toward pupil control as they develop through the field experiences,* Paper presented at the Annual Meeting of the American Educational Research Association (70th, San Francisco, CA, April 16-20, 1986). ERIC Document 269391

Lewin, P., Nelson, R.E., & Tollefson, N. (1983) Teacher attitudes toward disruptive children, *Elementary School Guidance and Counseling, 17(13),* pp. 188-193.

Lortie, D.C. (1975) *School teacher: A sociological study*, (Chicago, University of Chicago Press).

McIntyre, D. J. (1983) *Field experiences in teacher education: From student to teacher,* ERIC Clearinghouse on Teacher Education, Washington, D.C., Foundation for Excellence in Teacher Education, Washington, D.C. ERIC Document 225942.

Newton, E.H. & Brathwaite, W.E. (1987) Priorities and program effectiveness in teacher education: A study of perceptions of teachers in training and their tutors *Teaching and Teacher Education, 3(3),* pp. 193-204.

Payne, M.A. & Richardson, A.G. (1988) Factorial structure of the pupil control ideology scale: a West Indian perspective, *Research in Education, 40*, pp. 11-17.

Purcell, T.D. & Seiferth, B.B. (1981) Evaluation of the student teaching experience, *College Student Journal, 15(2)*, pp. 137-139.

Reed, D. (1989) Student teacher problems with classroom discipline: Implications for program

development, *Action in Teacher Education, 3(3),* pp. 59-65.

Rogers, C.R. (1951) *Client-centered therapy: Its current practice, implications and theory* (London, Constable).

Rogers, C.R. (1957) The necessary and sufficient conditions of therapeutic personality change, *Journal of Counseling Psychology, 21*, pp. 95-103.

Rogers, C.R. (1959) A theory of therapy, personality and interpersonal relationships as developed in the client-centered framework, in S. Koch (Ed.) *Psychology: a study of a science. Study I. Conceptual and systematic: Vol. 3, Formulations of the personal in social context* (pp 84-256) (New York, McGraw-Hill).

Rogers, C.R. (1962) The interpersonal relationship: The core of guidance, *Harvard Educational Review, 32(4),* pp. 416-429.

See, H.K.P., Hall, C. & Hall, E. (1998) Changes in the attitudes of Hong Kong teachers and their students following an experimental counselling skills training course, *Asian Journal of Counselling, 5(1&2),* pp. 1-11.

Silvernail, D.L. & Costello, M.H. (1983) The impact of student teaching and internship programs on preservice teachers' pupil control perspectives, anxiety levels, and teaching concerns, *Journal of Teacher Education, 34(4)*, pp. 32-36.

SPSS Inc. (1988) SPSSX: User's Guide, 3rd Edn (Chicago).

Stotland, E. (1969) Exploratory investigations of empathy, in L. Berkowitz (Ed.) *Advances in Experimental Social Psychology. Vol. 4.* (pp. 217-314), (New York, Academic Press).

Sullivan, C.G. (1979) *Sources of anxiety within the school setting as reported by Emory University preservice and inservice teachers. A descriptive study*, ERIC Document 179536.

Truax, C.B. (1966) Influence of patient statements on judgments of therapist statements during psychotherapy, *Journal of Clinical Psychology, 22,* pp. 335-337.

Truax, C.B. & Carkhuff, R.R. (1967) *Toward Effective Counseling and Psychotherapy: Training and Practice*, (Chicago, Aldine Publish Company).

Veenman, S. (1984) Perceived problems of beginning teachers, *Review of Educational Research, 54(2)*, pp. 143-178.

Wesley, D.A. & Vocke, D.E. (1992) *Classroom discipline and teacher education*, Paper presented at the Annual Meeting of the Association of Teacher Educators (Orlando, FL, February 15-19, 1992). ERIC Document 341690

Willower, D.J. (1977) Schools and pupil control, in Donald A. Erickson (Ed.) *Educational Organization and Administration*, (Berkeley, California, McCutchan).

Willower, D.J., Eidell, T.J., & Hoy, W.K. (1967) *The School and Pupil Control Ideology.* (Monograph No. 24), (University Park, PA, Pennsylvania State University).

Wilson, H.A. (1985) *Student teaching: A search for control and style*, ERIC Document 267130

Yeung, K.W. (1992) *The Use of Repertory Grid Technique to Study Student Teacher Stress* Unpublished M.A. Dissertation, (The University of Reading, England).

Yeung, K.W. (1997) *The Impact of Teaching Practice on General and Professional Self-Perceptions: An Investigation of Hong Kong Student Teachers.* Unpublished Ph. D. Dissertation, (The University of Hong Kong, Hong Kong).

Zeichner, K.M. & Grant, C.A. (1981) Biography and social structure in the socialization of student teachers: A re-examination of the pupil control ideologies of student teachers, *Journal of Education for Teaching, 7(3)*, pp. 298-314.

Table 1: Summary of Pupil Control Ideology (PCI) studies

Studies	Focus of study	Subjects	Construct validation of PCI	Statistical approaches
Dobson, Goldenberg & Elsom (1972)	Relationship between PCI and class behaviour	20 elementary school teachers	No report of construct validity of PCI	10 teachers who scored the highest PCI scores comprised the custodial group whereas another 10 teachers who scored the lowest comprised the humanistic group.
Glasnapp & Guenther (1973)	Change of PCI and skills orientation during student teaching	33 student teachers	Only made reference to the validity results of Willower et al. (1967)	Using correlations and analysis of variance
Barfield & Burlingame (1974)	PCI in selected schools	275 teachers in elementary, junior and senior high schools	Only made reference to the validity results of Willower et al. (1967) and a number of other studies	Analysis of variance
Lunenburg & O'Reilly (1974)	Personal and organizational influence on PCI	978 teachers and principals	Only made reference to the validity results of Willower et al. (1967)	2-way analysis of variance
Nachtscheim & Hoy (1976)	Relationships between authoritarian personality and PCI	More than 400 teachers and 15 principals from 35 elementary school	Only made reference to the validity results of Willower et al. (1967)	Correlational analysis
Willower (1977)	A literature review on PCI and PCB		Only made reference to the validity results of Willower et al. (1967)	
Hoy & Rees (1977)	Bureaucratic socialization of student teachers	97 student teachers	Only made reference to the validity results of Willower et al. (1967)	A comparison of means
Jones & Harty (1980)	Student teachers' PCI and amount of engaged instructional activities	19 secondary student teachers	Only made reference to the validity results of Willower et al. (1973)	Correlational analysis
Zeichner & Harty (1981)	Influence of teaching experience and cooperating teachers' PCI on student teachers' PCI	40 elementary student teachers	Only made reference to the validity results of Willower et al. (1967)	Change in PCI scores before and after teaching practice Regression analysis

Shearin (1982)	Relationship between PCI and student alienation	8 junior high schools	Only made reference to the validity results of Willower et al. (1973)	Schools above the mean PCI were classified as being humanistic while those below as custodially oriented
Halpin, Halpin & Harris (1982)	Relationship of student teachers' PCI and their personality characteristics	110 student teachers	Only made reference to the validity results of Willower et al. (1967) and the reliability results of Halpin, Golden and Halpin (1974)	Correlational analysis
Jones (1982)	PCI and student teaching	62 student teachers	No report of construct validity of PCI	Comparison of mean scores before and after teaching practice
Lunenburg (1983)	Relationships between PCI and self-concept as a learner of students	35 schools	Only made reference to the validity results of Willower et al. (1967)	Correlational analysis
Lunenburg & Stouten (1983)	Relationship between PCI and pupils' projected feelings toward teachers	131 classes of teachers and their pupils	Only made reference to the validity results of Willower et al. (1973)	Correlational and regression analysis
Harty & Hassan (1983)	PCI and the science classroom environment in urban secondary schools of Sudan	20 humanistic teachers and 20 custodial teachers	Only made reference to the validity results of Willower et al. (1967)	Teachers with a PCI score at 66 and below were placed in a humanistic group, whereas those with a score of 73 or above in a custodial group
Lunenberg (1984)	A literature review	-	No mention of validity studies of PCI	-
Harty, Anderson & Enochs (1984)	Effects of early field experiences on science teaching attitudes and class control ideologies	82 preservice teachers	Only made reference to the validity results of Willower et al. (1973)	Comparison of mean scores
Graham, Benson & Henry (1985)	Validation of PCI	199 teachers	A 10 item, one factor model Alpha coefficient was .71	Exploratory factor analysis and confirmatory factor analysis
Graham, Halpin, Harris & Benson (1985)	Validation of PCI	362 teacher education students	A 10 item, one factor model Alpha coefficient was .936	Exploratory factor analysis and confirmatory factor analysis
Docking (1985)	Effects of a ten-week inservice course on PCI and teacher anxiety	11 staff members of an elementary school	Only made reference to the validity results of Willower et al. (1973) and the reliability results of Halpin, Golden and Halpin (1973)	Comparison of overall scores

Payne & Richardson (1988)	Validation of PCI	628 primary and secondary teachers in a Caribbean context	Seven factors for primary teachers and nine factors for secondary teachers	Factor analysis
Lunenburg & Schimidt (1989)	Relationships among PCI, PCB, and quality of school life	239 elementary and secondary teachers from 6 schools	Only made reference to the validity results of Willower et al. (1967)	Correlational analysis
Woolfolk, Rosoff & Hoy (1990)	Relationships between teachers' sense of efficacy and their beliefs about managing students	55 teachers	Alpha coefficient for the study was .78. No mention of validity of PCI for the study	Correlational and multiple regression analysis
Hoy & Woolfolk (1990)	Influence of student teaching experience on three teacher perspectives – PCI, social problem solving and efficacy	191 student teachers	Alpha coefficient of PCI of the study was .72 No mention of validity study of PCI	Correlational and regression analysis
Abu-Saad & Hendrix (1993)	PCI in Israeli elementary schools	206 elementary school teachers	Only made reference to the validity results of Willower et al. (1967)	Analysis of covariance
Agne, Greenwood & Miller (1994)	Relationships between teacher belief systems and teacher effectiveness	88 teachers and 92 inservice teachers	Only made reference to validity results of other studies	Logistic multiple regression
Enochs, Scharmann & Riggs (1995)	Relationships of PCI to self-efficacy & outcome expectancy	73 preservice majors	Only made reference to the validity results of Willower et al. (1973)	Correlational analysis
See, Hall & Hall (1998)	Effect of a counselling skills course on changes in attitudes of teachers	42 secondary teachers in Hong Kong	No report of validity of PCI	Comparison of mean scores

Table 2: Item of Custodial Control Scale (CCS)

Items	Descriptions
@1	It is more important for pupils to learn to obey rules than that they make their own decisions.
2	It is important for me to keep a distance from my pupils so that I can exert my authority in teaching.
3	I regard punishment as an effective means for deterring pupils' disruptive behaviour.
4	I will require pupils stand in corner of the classroom when they cause disturbances in class.
5	Pupils should behave as I have told them to do in classroom.
6	I will scold a disturbing child in front of the class in order to keep the behaviour under control.
7	I cannot tolerate pupils in making too much noise during my teaching.
8	I will only allow pupils to carry out classroom learning activities in an orderly manner.
9	Pupils will not stop making disturbances unless they are punished.
10	There is no way to stop pupils' nuisance unless they are punished.
The following items were dropped subsequent to the analysis of this study.	
@	Being friendly with pupils often leads them to become too familiar.
@	Pupils can be trusted to work together without supervision.
@	If a pupil uses obscene or profane language in school, it must be considered a moral offence.
@	Too much pupil time is spent on guidance and activities and too little on academic preparation.
@	Pupils often misbehave in order to make the teacher look bad.
	I have the feelings that pupils are generally troublesome and difficult to deal with.
	I will suspend the privilege of those pupils who are not co-operative in learning.
	I will privately scold those pupils who offend class order.
	I will arrange pupils to stay after school if their learning behaviour is unsatisfactory.
	As I begin teaching a new class during my teaching practice, I will inform pupils of necessary classroom rules in order to ensure satisfactory class discipline.
	I believe that pupils should first be controlled before they can be taught.
	Being too friendly with pupils would worry me.
	I feel frustrated if pupils misbehave in classroom.
The following PCI items were dropped subsequent to the second pilot study.	
@	It is often necessary to remind pupils that their status in school differs from that of teachers.
@	A few pupils are just young hoodlums and should be treated accordingly.
@	Student governments are good safety valves but should not have much influence on school policy.

@ - Items from Willower et al. (1967)

Table 3: Items of Humanism Scale (HUS)

Items	Descriptions
1	When pupils misbehave in classroom, I will seek to understand the reasons for their behaviour.
2	I accept the idea that it is natural for pupils to behave differently in classroom.
3	I will respect the ideas of my pupils even though I do not agree with them.
4	I believe that mutual respect and understanding between my pupils and me are more effective than control in ensuring classroom discipline.
5	Classroom rules and order should be established between my pupils and me so as to ensure their understanding and acceptance.
6	I believe that empathising with pupils will enhance their trust in me.
7	I would like to treat pupils as friends so that we can be close to each other.
8	Pupils can realise their sense of responsibility for their behaviour.
9	Pupils can distinguish right and wrong, and behave appropriately.
10	I consider that empathy is crucial for encouraging pupils to have positive change.
11	Students should be given maximum opportunity to express themselves in classroom discussions.
12	I think it is important to listen to pupils' opinions in order to understand their needs.
The following items were dropped after the second pilot testing.	
@	Pupils can be trusted to work together without supervision
	I believe that pupils can be self-disciplined in classroom.
	Students should be removed from the classroom as a last resort after they have been given several chances.

@ Item from Willower et al. (1967)

Table 4: Summary of internal consistency reliabilities (alpha), item-analyses, and exploratory factor analyse of scales

Scales	Alpha	Corrected item-total correlations	No. of factors extracted	Percent of variance
GPS1	.88	.48-.75	2	60.4
GPS2	.89	.51-.77	2	61.2
CCS1	.74	.26-.52	2	43.7
CCS2	.72	.22-.54	2	42.3
HUS1	.78	.36-.54	2	40.7
HUS2	.80	.35-.58	2	44.6
CLASSMAN	.83	.47-.72	1	51.6
TABILITY	.93	.49-.67	2	49.5

No. of participants in Test 1 : 557
No. of participants in Test 2 : 466

Table 5: Summary of confirmatory factor analysis testing dimensionality of scales

Scales	Lambda	Delta	RMR	p-value of χ^2	GFI	CFI	Critical N
GPS1	.31-.90	.30-.90	.021	.91	1.00	1.00	1892.37
GPS2	.30-.91	.18-.91	.020	.78	1.00	1.00	1478.38
CCS1*	.20-.70	.43-.95	.040	.10	.97	.99	642.89
HUS1	.36-.75						
CCS2*	.17-.72	.47-.96	.038	.28	.98	1.00	595.60
HUS2	.30-.72						
TABILITY	.54-.79	.38-.72	.018	.24	.97	1.00	649.84
CLASSMAN	.54-.87	.24-.71	.0094	.67	1.00	1.00	1714.39

* CCS and HUS were analysed together

GPS – Global Professional Self-esteem
HUS – Humanism Scale
CCS – Custodial Control Scale
TABILITY – Adequacy of student teaching abilities
CLASSMAN – Class discipline and management

GPS1 - "1" stands for a pre-test measure.
GPS2 - "2" stands for a post-test measure.

Table 6: Confirmatory factor analysis of Custodial Control Scale (CCS) and Humanism Scale (HUS) pre- and post-teaching practice (Completely standardised solution)

Item No.	Pre- teaching practice (n=573)		Post-teaching practice (n=475)	
	CCS1	HUS1	CCS2	HUS2
1	.22		.31	
2	.51		.33	
3	.70		.61	
4	.61		.53	
5	.20		.19	
6	.59		.49	
7	.36		.33	
8	.24		.17	
9	.59		.63	
10	.63		.72	
11		.51		.69
12		.56		.68
13		.61		.66
14		.57		.61
15		.53		.58
16		.71		.68
17		.52		.34
18		.36		.54
19		.38		.49
20		.75		.72
21		.56		.56
22		.73		.30

Custodial Control Scale Items 1 to 10
Humanism Scale Items 11 to 22

Table 7: Product-moment correlations of custodial control and humanism with global professional self-esteem, adequacy of student teaching abilities and class discipline and management scales (post-practice data n=466)

Scales	Custodial Control	Humanism
Professional self-esteem	-.11*	.54*
Teaching abilities	-.15*	.42*
Class management	-.21*	.37*

* $P < .01$

Table 8: Pre- and post practicum means student teachers' custodial control and humanistic scale responses and results of dependent variable t-test (n=416)

Scales	Pre-Means	Post-Means	t-ratios
Custodial Control	29.53	31.54	71.07*
Humanism	49.38	49.54	1.87

* $P < .01$

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