

2-2005

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Recommended Citation

Pounder, J. S. (2005). Full range leadership in the university classroom: A Hong Kong study (HKIBS Working Paper Series 055-045). Retrieved from Lingnan University website: <http://commons.ln.edu.hk/hkibswp/41>

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FULL RANGE LEADERSHIP IN THE UNIVERSITY CLASSROOM: A HONG KONG STUDY

ABSTRACT

This article describes a Hong Kong study that examined the effects of full range leadership in the university classroom. The full range (transformational-transactional) leadership model was chosen because research has indicated that a positive association exists between transformational leadership and various desirable leadership outcomes. It was hypothesized that university instructors adopting a transformational classroom leadership style would generate positive classroom leadership outcomes and that these positive outcomes would be confirmed by positive student evaluation of teaching (SET) scores for the instructors concerned. Through the development and testing of an instrument for measuring full range leadership in the university classroom, it was noted that employment of transformational aspects of full range classroom leadership was significantly and positively associated with desirable classroom leadership outcomes. Furthermore, there was sufficient indication of an association of positive leadership outcomes with positive instructor SET scores to merit further investigation of the relationship.

Key words: classroom leadership, full range leadership, student evaluation of teaching, transformational leadership.

1. INTRODUCTION

Worldwide pressure on universities to be publicly accountable, and typical university responses to such ‘value for money’ pressures including the ‘student as customer’ approaches to educational delivery (Simpson & Siguaw, 2000) have combined to placed student evaluation of teaching (SET) at the centre of the assessment of university teachers’ performance. For example, in 1993, Seldin noted an 86 per cent use of the SET as a central feature of personnel decisions in US higher education, an increase in usage from 68 per cent in 1984 and 28 per cent in 1973 (Seldin, 1993; 1984). Equally, in a feature for the Chronicle of Higher Education, Wilson (1998) stated that “only about 30 per cent of colleges and universities asked students to evaluate professors in 1973, but it is hard to find an institution that doesn’t today. Such evaluations are now the most important, and sometimes the sole, measure of an instructor’s teaching ability” (p. A12). Similarly in the US, a study by the Carnegie Foundation for the Advancement of Teaching indicated that 98% of universities surveyed used SET’s as the major component of university teaching evaluation (Magner, 1997). In US business schools, the figure reported was even higher i.e., 99.3% (Comm & Mathaisel, 1998). Theoretically, SET’s are a formative approach to teaching evaluation aimed at giving feedback to university teachers in order for them to enhance the quality of their instruction. However, in practice, SET’s also inform summative decisions on promotion and tenure (Simpson & Siguaw, 2000) and are a critical input to personnel decisions affecting the future of university academic staff.

The heavy reliance on the SET is justified if rating of instructor performance is connected with student achievement. However, there is considerable disagreement on the link between SET scores and student academic performance. Despite the existence of a few studies indicating that SET’s are reasonably valid multidimensional measures (Marsh & Roche, 1997; McKeachie, 1987) and have a moderate correlation with student learning (d’Appollonia & Abrami, 1997), most investigations have found little correlation between student achievement and student ratings of their instructors (see, for example, Cohen, 1983; Damron, 1996; Dowell & Neal, 1982; McCallum, 1984) By and large, academics are far from convinced about the accuracy of SET’s as a measure of teaching performance (Reckers, 1995). Certainly there is extensive research indicating that a variety of contextual variables such as grading leniency (Aronson & Linder, 1965; Brown, 1976; Centra & Creech, 1976; Clark, 1993; Goldman, 1993; Greenwald, 1997; Perkins et al., 1990) class size (Feldman,

1984; Holtfreter, 1991; Koh & Tan, 1997; Meredith, 1984; Toby, 1993) class timing (Cronin & Capie, 1986; DeBerg & Wilson, 1990; Husbands & Fosh, 1993; Koh & Tan, 1997; Liaw & Goh, 2003) and course content (Cashin, 1990; Cranton & Smith, 1986; DeBerg & Wilson, 1990; Stodolsky, 1984) have a marked effect of teaching evaluations. High on the list of variables influencing SET scores are instructor related factors such as gender (Bennett, 1982; Cooper et al., 1982; Crawford & Macleod, 1990; Feldman, 1993; Kierstead et al., 1988; Langbein, 1994; Rubin, 1981; Sears & Hennessey, 1996; Winocur et al., 1989), age, experience and rank (Clayson, 1999; Feldman, 1983; Holtfreter, 1991; Smith & Kinney, 1992) non academic behavior such as bringing food to class (Emery, 1995; Simpson & Siguaw, 2000) and less tangible factors such as attitude (Kim et al., 2000) and personality (Abrami et al., 1982; Cardy & Dobbins, 1986; Clayson, 1999; Feldman, 1986; Jackson et al., 1999; Naflulin et al., 1973; Williams & Ceci, 1997).

One instructor related factor that has been largely neglected in the literature is classroom leadership style. This is despite the fact that research from the field of leadership and management indicates that one of the most popular modern conceptualizations of leadership, namely full range or transformational-transactional leadership can have a profound effect on the degree of subordinate satisfaction with the leader. Furthermore, because it is possible to conceive of the classroom as a small social organization with instructor as leader and students as followers (Cheng, 1994; Luechauer & Shulman, 2002), it is theoretically possible to test the effect of employing full range leadership in an instructional context. With this in mind, in the Hong Kong study, the effect of full range leadership behavior in the university classroom was examined via a process of developing a leadership instrument was for university instructors. It was anticipated that the transformational classroom leadership style would be associated with positive student perception of this style. It was also theorized that this positive student perception would be confirmed by high SET scores for the instructors concerned. The following section describes full range leadership and provides a more detailed rationale for using this particular leadership conceptualization as the basis for the Hong Kong study.

2. FULL RANGE LEADERSHIP

Interest in leadership reemerged in the mid 1980's revolving around the notion of transformational leadership. Studies have largely suggested that transformational leadership

produces desirable leadership outcomes often measured in terms of subordinates' satisfaction with the leader and their assessment of the leader's skills (Avolio & Howell, 1992; Bass, 1985; Hater & Bass, 1988; Seltzer & Bass, 1990). The transformational leadership notion comprises the following leadership characteristics:

- a. *Idealized Influence or Charisma*: The leader provides vision and a sense of mission, instills pride, gains respect, trust and increases optimism. Such a leader excites and inspires subordinates. This dimension is a measure of the extent of followers' admiration and respect for the leader.
- b. *Inspirational Motivation*: The leader acts as a model for subordinates, communicates a vision and uses symbols to focus efforts. This dimension is a measure of the leader's ability to engender confidence in the leader's vision and values.
- c. *Individual Consideration*: The leader coaches and mentors, provides continuous feedback and links organizational members' needs to the organization's mission. Individual consideration is a measure of the extent to which the leader cares about the individual follower's concerns and developmental needs.
- d. *Intellectual Stimulation*: The leader stimulates followers to rethink old ways of doing things and to reassess their old values and beliefs. This dimension is concerned with the degree to which followers are provided with interesting and challenging tasks and encouraged to solve problems in their own way.

(Den Hartog et al., 1997; Hinkin & Tracey, 1999)

In the literature, it is argued that transformational leadership is built on the foundations of transactional leadership (Bass 1985). Dimensions of transactional leadership are as follows:

- a. *Contingent Reinforcement or Contingent Reward*: The leader's rewards to followers are contingent on them achieving specified performance levels.
- b. *Active Management by Exception*: The leader actively seeks out deviations from desired performance on the part of subordinates with a view to taking corrective action.

- c. *Passive Management by Exception*: The leader does not seek out deviations from desired performance and only takes action when problems present themselves.
- d. *Laissez-faire Leadership*: Conceptually distinct from passive management by exception because passive management by exception guards the status quo by exception whilst laissez faire leadership amounts to an abrogation of leadership responsibility.

(Bass, 1985; Bass & Avolio, 1989; Hater & Bass, 1988; Den Hartog et al., 1997)

The notion of full range leadership conveys the idea that leaders, in practice, are likely to display some or all of the transformational-transactional leadership characteristics. However, effective leaders are felt to be those that display more of the active and less of the passive full range leadership behaviors (Sosik et al., 2002).

2.1 Full Range Leadership and Leadership Outcomes

Strong assertions have been made in leadership literature regarding the beneficial effect on subordinates of the transformational characteristics of full range leadership in particular. A number of studies have suggested that transformational leadership has a marked and positive influence on subordinates' effort and satisfaction (Bass & Avolio, 1990; Bycio et al., 1995; Howell & Frost, 1989; Kirkpatrick & Locke, 1996; Parry, 2000). This positive influence has been observed in a variety of contexts including that of health care (Gellis, 2001), commerce (Podsakoff et al., 1990), military (Yammarino & Bass, 1990), and education (Hoover, 1991). Other studies have indicated a positive effect on subordinate performance (Howell & Frost, 1989) particularly in a group or team situation (Avolio et al., 1988; Barling et al., 1996; Den Hartog et al., 1997, Neumann, 1992). Equally, transformational leadership has been linked with enhanced individual commitment to the group or organization (Barling et al., 1996, Bycio et al., 1995). Similarly, in terms of subordinate development, the intellectual stimulation dimension of transformational leadership has been associated with challenging subordinates to be creative, think critically and independently and find novel ways of solving problems while seeking a wide range of opinions before deciding upon solutions (Bass, 1998). Further, individualized consideration has been viewed as a vehicle for developing subordinates' confidence to tackle problems (Bass, 1985).

In summary, the beneficial effects of transformational aspects of full range leadership on subordinates reported in the leadership literature coupled with the critical effect of SET scores on academic careers indicated that there was scope for research on the effect of aspects of the transformational-transactional style in a university instructional setting. The Hong Kong study involved the development of an instrument based on the full range leadership model that was designed to assess the impact of instructor classroom leadership style on student perception of their instructor's classroom leadership competence. The study also examined the relationship between perceptions of instructor classroom leadership competence and relevant SET scores. This was viewed as an opportunity to add to the leadership literature by experimenting with full range leadership in a university instructional context given that, with the notable exception of initial excursions by Ojode et al. (1999) and Walumbwa and Ojode (2000), studies of the effects of transformational leadership in the university classroom have been few and far between.

3. METHOD

3.1 Setting

The study was carried out in the Business School of Lingnan University, one of Hong Kong's eight accredited universities. It focused on the capstone Strategic Management course in the School's major undergraduate offering which is a Bachelor of Business Administration (BBA) program. At the time of the study, this program had a total cohort of 876 students spread over three years and Strategic Management was a required course for all final year students. Concentrating the study on one particular course was to ensure that results were not obscured due to differences in course content because studies have indicated that course content can influence student evaluation of instructors (Aleomoni, 1989; Cashin, 1990; Clark, 1993; Cranton & Smith, 1986; DeBerg & Wilson, 1990; Koh & Tan, 1997; Stodolsky, 1984).

The Lingnan University Business School was selected in order to facilitate the cooperation needed from the Strategic Management instructors for an approach to evaluating their teaching from a leadership perspective. At the time of the study, the author was one of the instructors responsible for delivering two sections (classes) of the Strategic Management

course and was able to draw upon the collegiality of the Strategic Management instructional team to enlist their support for the research.

3.2 Sample

The sample comprised all the final year students of the BBA Program (n = 285). The choice of final year was consistent with indications in the literature that higher-level students (i.e., those taking higher level courses) are generally more motivated and discriminating in their evaluation of teaching than lower level students (Langbein, 1994)

3.3 The Instrument

The instrument for data collection was a version of the most recent Multifactor Leadership Questionnaire (MLQ Form 5x-Short) developed by Bass and Avolio (2000) to measure all nine dimensions of the transformational-transactional or full range leadership model. These nine dimensions are as follows: (a) Idealized Influence (Attributed) (b) Idealized Influence (Behavior) (c) Inspirational Motivation (d) Intellectual Stimulation (e) Individual Consideration (f) Contingent Reward (g) Management-by-Exception (Active) (h) Management-by-Exception (Passive) (h) Laissez-faire Leadership. Descriptions of the dimensions were presented above. The separation of the Idealized Influence/Charisma dimension into (a) and (b) in the MLQ reflects the recommendation by House et al. (1991) and Hunt (1991) that behavioral and attributed Idealized Influence be differentiated on the basis that charisma is demonstrated by leadership behavior and is also a quality attributed to a leader by followers. The wording of the MLQ Form 5x-Short (Bass & Avolio, 2000) was modified for an instructional setting by the author who brought to this task 20 years experience as a business instructor in Hong Kong universities. These modifications were then scrutinized by a senior academic and instructor in the field of educational research with a special interest in transformational-transactional leadership, and an academic and instructor in the field of the use of English language. Further modifications were made as a result of their input. Modifications were also made to the MLQ take account of the Hong Kong cultural context. For this purpose, Brislin's (1993) back-translation procedure was employed which involved taking the MLQ modified for an instructional setting as described above, and having it translated into Chinese by a bilingual and then a second bilingual, unfamiliar with the efforts of the first bilingual, translating the Chinese version back into English. This procedure

which Brislin (1976) calls decentering allows for modifications of both the source language and the target language such that "...the research project is not centered around any one culture or language. Instead, the idiosyncrasies of each language under study contribute to the final version of the questionnaire" (p. 223-224).

3.4 Hypotheses

At the core of the literature on full range leadership is the finding that the transformational leadership style is generally perceived positively by subordinates. This gave rise to the following hypothesis:

H1: Student ratings of each of the transformational dimensions of classroom leadership (i.e., Idealized Influence (Attributed), Idealized Influence (Behavior), Inspirational Motivation, Intellectual Stimulation, Individual Consideration) will correlate positively and significantly with their ratings of each of the classroom leadership outcomes (i.e., Extra Effort, Effectiveness and Satisfaction).

As, the study was also concerned with the relationship between student perception of classroom leadership outcomes and SET scores, the second hypothesis was as follows:

H2: For each class, ratings of classroom leadership outcomes will correlate positively and significantly with SET scores.

The first hypothesis in particular assumed the development of a psychometrically sound classroom leadership instrument and for this purpose confirmatory factor analysis available on LISREL 8.54 (Joreskog & Sorbom, 2002) was employed with the full range leadership model as the reference point. Particular attention was paid to the place of Contingent Reward in the classroom leadership variant of the original. This was because a number of studies have argued that Contingent Reward loads onto the transformational rather than the transactional factors (e.g., Lim, 1997; Sarros & Santora, 2001; Thite, 1999; Yukl, 1999). On this basis they have suggested that the full range leadership conceptualization lacks discriminant validity because in the original full range leadership model developed by Bass and his colleagues (Avolio et al., 1995; 1999; Bass, 1985; Bass & Avolio, 2000), Contingent Reward is regarded as a transactional characteristic.

3.5 Administration of the Survey

The survey involved five instructors (four males and one female) and 10 sections (i.e., classes) of students (instructors deliver the course to more than one class). Class sizes ranged from 17 to 34. The survey took place in the 2002/2003 academic year. The instrument was distributed by the individual instructors to all students attending the class on the 10th week of a 13 week semester to ensure that students had had sufficient experience of their classroom instructors' style to enable them to give informed answers to items in the instrument. The instrument allowed for complete anonymity because student names were not required on the questionnaire. 217 usable responses were received giving a response rate of 76%. 94 respondents were male and 123 were female.

4. FINDINGS AND ANALYSIS

4.1 Validity and Reliability

As stated above, confirmatory factor analysis was employed using LISREL 8.54 (Joreskog & Sorbom, 2002). A recent review of the literature (Huang, 2003) has indicated that there is little agreement amongst researchers as to the 'best' index to use to ascertain goodness of fit. However, the LISREL program provides a number of goodness of fit indices, some of which are widely used in research and have rule of thumb acceptance/rejection (of the model) standards associated with them (ibid., 2003). Table 1 shows a comparison of the relevant goodness of fit indices resulting from the application, in the Hong Kong study, of LISREL using the SIMPLIS command language and a correlation matrix based on Spearman's rho (relevant to the ordinal data produced by the instrument) to first, a model of classroom leadership specifying the Contingent Reward dimension as a transactional leadership factor and secondly, to a model of classroom leadership specifying the Contingent Reward dimension as a transformational leadership factor. For confirmation purposes, the procedure was repeated using a Pearson's product-moment correlation matrix as data input and the results shown in parenthesis in the table. Table 1 also illustrates the rule of thumb acceptance standards for each goodness of fit index. The chi-squared test was not included because a number of researchers have shown that the chi-squared test almost invariably gives significant results with large samples and thus can be a misleading index with smaller samples. Accordingly, they have advocated the use of other goodness of fit measures instead such as

those contained in the table (Anderson & Gerbing, 1998; Avolio et al., 1999; Bentler, 1990; Bollen, 1989; James et al., 1982).

Insert Table 1 about here

The goodness of fit parameters in Table 1 based on a Spearman's rho correlation matrix indicated that the version of the classroom leadership model with Contingent Reward as a transactional factor was a slightly better fit to the data than the model with Contingent Reward as a transformational factor. When a Pearson's product moment correlation matrix was employed as data input, the SIMPLIS procedure was unable to clearly distinguish between the two versions of the model in terms of goodness of fit. In brief, confirmatory factor analysis indicated that both versions of the classroom leadership model fitted the data well (i.e., were potentially capable of construct valid measurement) with the version of the classroom leadership model specifying Contingent Reward as a transactional leadership factor being a slightly better fit to the data.

Cronbach's Alpha (Cronbach, 1951) available on SPSS version 11.5. (SPSS, 2002) was employed to test the internal consistency-reliability of the 12 scales (i.e., nine leadership dimension and three leadership outcome scales) comprising the classroom leadership instrument. Table 2 below illustrates the Cronbach Alpha scores for each of the scales.

Insert Table 2 about here

Nunnally (1978) and Peter (1979) have argued generally for an internal consistency-reliability criterion of 0.70 for widely used scales and seven of the above scales either met or exceeded that criterion with the Individual Consideration scale falling marginally short of the standard at 0.68. No scale had a score below 0.60, a criterion that is considered acceptable in social science research (Anastasi, 1990) particularly in the case of an exploratory study (Nunnally, 1978). Therefore, Alpha scores were acceptable given that the Hong Kong study was an initial experiment in modifying the original MLQ for a classroom setting.

4.2 Transformational Classroom Leadership and Classroom Leadership Outcomes

Table 3 reports the correlation among the various dimensions of full range classroom leadership. In examining Table 3, it should be noted that correlations equaling or exceeding 0.3 are considered strong in the case of ordinal measurement (Boutillier, 2001; Healey et al., 1999). In the table, the variable labels represent the transformational-transactional leadership dimensions and outcomes as follows: **Transformational** (IIA = Idealized Influence - Attributed, IIB = Idealized Influence - Behavior, IM = Inspirational Motivation, IS = Intellectual Stimulation, IC = Individual Consideration), **Transactional** (CR = Contingent Reward, MBEA = Management by Exception - Active, MBEP = Management by Exception - Passive, LF = Laissez Faire Leadership), **Outcomes** (EE = Extra Effort, E = Effectiveness, S = Satisfaction).

Insert Table 3 about here

Table 3 indicates that scores on each of the transformational classroom leadership dimensions were significantly and positively correlated with scores on each of the classroom leadership outcomes and therefore hypothesis (H1) was supported.

4.3 Classroom Leadership Outcomes and SET Scores

Lingnan University has an SET system for all its university instructors. The Lingnan system involves the conduct of SET's for every class with instructors teaching their designated classes for the duration of the course. The critical measure of teaching performance used for both formative and summative purposes is the overall mean score for teaching the class. Instructors participating in this research agreed to provide this author with the mean SET scores for each of the classes under study. For comparison purposes, given that the mean score per class was the relevant data point, the mean scores for the leadership outcomes (Effectiveness, Satisfaction and Extra Effort) were calculated, for each class involved in the study. As there were ten classes participating in the study, ten mean leadership outcome scores were correlated with ten mean teaching scores resulting from the Lingnan University CTE system. Given that the mean was employed in the correlation analysis, both Spearman's rho and Pearson's r were calculated and the results are shown in Table 4:

Insert Table 4 about here

Table 4 shows that none of the correlations were significant at the 0.05 level. However, levels of significance are affected by sample size (Frieman et al., 1978; Kirby et al., 2002) and the Hong Kong study, being exploratory in nature, involved a sample of ten classes only. Nevertheless, using a correlation coefficient of 0.3 as the standard of a strong correlation for ordinal data (Boutilier, 2001; Healey et al., 1999), all correlation coefficients were strong. Therefore, hypothesis H2 was not supported by the analysis i.e., although scores on leadership outcomes were positively correlated with SET scores, none of the correlations were significant. Nevertheless, the analysis did indicate the possibility that a larger sample could confirm hypothesis H2.

5. DISCUSSION

5.1 Contingent Reward

In addition to the above findings, reference to Table 3 shows that scores on the Contingent Reward transactional leadership dimension were positively and significantly correlated with scores on each of the transformational leadership dimensions and with scores on each of the leadership outcomes. This is consistent with the results of the confirmatory factor analysis described earlier which indicated that both versions of the classroom leadership model specified in Table 1 were a good fit to the data even though the classroom leadership model with Contingent Reward as a transactional factor was a marginally better fit based on a Spearman's rho correlation matrix. Reference to Table 3 reveals not only significant positive correlations of scores on the Contingent Reward scale with scores on each of the transformational leadership scales but also significant positive correlations with scores on the Management by Exception (Active) and Management by Exception (Passive) scales, although in the case of the latter this correlation is relatively weak. It seems then that Contingent Reward 'straddles' the transformational-transactional leadership continuum. This finding in an instructional context is consistent with findings in the general leadership literature that, as discussed above, have differed regarding the location of Contingent Reward in the full range leadership model.

5.2 Active Management by Exception

Reference to Table 3 also indicates that Management by Exception (Active) scores were significantly and positively correlated with each of the transformational leadership scores and with the leadership outcome scores. This finding highlights variations in the literature regarding the relationship between the Active Management by Exception dimension and the transformational dimensions. For example, Avolio and co-authors' (1999) analysis of 14 separate samples found that scores on the Management by Exception (Active) dimension were negatively correlated with those on each of the transformational dimensions. However, Yammarino and Bass (1988) found small positive correlations between Active Management by Exception and Charisma, Individualized Consideration and Intellectual Stimulation. Yammarino et al. (1989) reported more substantial correlations between Active Management by Exception and these same dimensions i.e., 0.46, 0.41, and 0.62 respectively. Correlations of a similar magnitude can be found in Yammarino and Bass (1990). Equally, Spangler and Braiotta (1990) found that Active Management by Exception correlated 0.85 with transformational leadership. The Hong Kong findings are consistent with the findings of these latter studies. It is possible that Active Management by Exception is of particular relevance to an instructional context because it involves, at least partially, top-down feedback which is the expected modus operandi in the instructor-student relationship. For example, one of the Active Management by Exception items contained in the classroom leadership instrument developed in the Hong Kong study was as follows: "He/She (The instructor) is quick to point out where my performance deviates from what is required by the course."* This finding, plus the positive correlation of Active Management by Exception with leadership outcomes also indicated in the Hong Kong study, tend to confirm the statement made earlier in connection with the original full range leadership conceptualization, namely that leaders considered effective are those who display more of the active and less of the passive full range leadership behaviors (Sosik *et al.*, 2002).

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5.3 A Teaching Development Opportunity

The Hong Kong study indicated that scores on the transformational dimensions and active transactional dimensions (i.e., Contingent Reward and Active Management by Exception) of the classroom leadership instrument were significantly associated with scores on the classroom leadership outcomes of Satisfaction, Extra Effort and Effectiveness. The study also indicated the potential association of high classroom leadership outcome scores with high SET scores for university instructors. This indication is potential rather than actual according to the findings of this study because correlations between classroom leadership outcome and SET scores, although strong and positive, were not significant. However, significance levels are affected by sample size (Frieman et al., 1978; Kirby et al., 2002). Therefore, this lack of significance is possibly due to the fact that, although over 200 students participated in the research, for the purpose of ascertaining the relationship, if any, between classroom leadership outcome scores and SET scores, the sample size was small comprising the ten classes involved in delivering the Strategic Management course to these students.

In addition to the positive effects that the transformational leadership and active transactional leadership styles have on classroom leadership outcomes and potentially on SET scores, there are other arguments in favor of adopting the transformational approach to classroom leadership. For example, House et al. (1988) and Howell and Frost (1989) have highlighted the beneficial effects of transformational leadership on subordinate performance and Slater and Narver (1995), Farrell (2000) and Coad and Berry (1999) have pointed to enhanced learning resulting from transformational leadership. Similarly, Howell and Higgins (1990), Sosik (1997) and Al-Beraidi and Rickards (2003) have found empirical support for the beneficial effects of transformational leadership on innovation and creativity. Furthermore, Atwater et al. (1991), and Parry and Proctor-Thomson (2002) have conducted research that appears to confirm the Carlson and Perrewé (1995) assertion that “transformational leadership is viewed as the best approach for instilling ethical behavior in organizations” (p. 5). On the basis that the classroom leadership model developed and tested in the Hong Kong study reflects and retains the integrity of the original full range leadership conceptualization (Bass & Avolio, 1994), it is feasible to expect that the additional benefits of transformational leadership described here will also result from the exercise of the transformational dimensions of classroom leadership although this expectation in a university classroom context will need further examination because it is purely speculative at this stage. Nevertheless, there is surely

little question that enhanced student performance, learning, creativity and ethical behavior are highly desirable objectives of university instruction. Arguably, therefore, the potential of transformational classroom leadership to deliver these objectives is worth exploring.

The findings of the Hong Kong study have practical relevance if it is possible to teach desirable leadership behaviors and Barker (1997) has argued against this possibility. However, contrary to Barker's view, there is evidence that transformational leadership in particular is teachable (Bass, 1990; Barling et al., 1996; Kelloway & Barling, 2000, Kelloway et al., 2000). Bass (1990) has described two approaches to transformational leadership training. The first is personal feedback and goal setting where leaders self rate their performance using, for instance, a self rating version of the MLQ and the same leaders are also rated by their subordinates using the standard MLQ. Leaders are then counseled on discrepancies between self-ratings and subordinate ratings. The outcome of counseling sessions is a specific action plan for each participant designed to enhance transformational leadership behaviors (Barling et al., 1996). The second approach involves group based workshops in which a variety of exercises take place such as brainstorming on effective or ineffective leadership and watching videos illustrating various leadership styles and all linked to the theory of transformational-transactional leadership. Consistent with the counseling approach, the outcome of the workshop approach is specific action plans designed to enhance the transformational leadership style of participants.

Consistent with the MLQ Form 5x-Short (Bass & Avolio, 2000), the classroom leadership instrument developed in the Hong Kong study comprised 45 behaviorally based statements that model the type of behavior exhibited in the various dimensions of classroom leadership. Certainly in the Hong Kong context, it would appear feasible also to develop a self-assessment version of the instrument along the lines of the self assessment version of the original MLQ. Comparison of self assessment ratings with student ratings of classroom leadership could then be the basis for the type of counseling sessions described above in which dialogue would focus on differences between the student ratings and teachers' own self evaluations. Given the tangible nature of the items in the classroom leadership instrument, differences identified and discussed in the counseling sessions could then provide the basis for an actionable plan for improvement not only in the obvious transformational dimensions of classroom leadership but also in the areas of Contingent Reward and Active Management by Exception that, according to the results of the Hong Kong study, may be importance aspects

of classroom leadership effectiveness. After a suitable time has elapsed, those instructors undergoing the counseling sessions could then repeat the process of administering both versions of the instrument. A comparison of the initial results with the results of the second administration could serve to identify areas of classroom leadership where improvements were evident, where further improvements were needed, and also to gauge the usefulness of the counseling approach for enhancing classroom leadership performance. In addition to assessing the effect of training on classroom leadership behaviors, the data from these initial and follow up surveys could be used, along with relevant SET ratings, to further explore the relationship between classroom leadership behaviors and SET ratings.

6. LIMITATIONS AND FURTHER STUDY

The obvious limitation of the Hong Kong study was that it was confined to the instructors and students of the one capstone course in one of the eight universities in Hong Kong. Therefore, more work has to be done involving, for example, additional courses and the other Hong Kong universities in order to produce more generalized findings for Hong Kong higher education. Generalizing findings beyond Hong Kong will require the procedure described in this study, or refinements of the Hong Kong procedure, to be carried out in the higher educational system of other countries. Despite this limitation, confining the scope of the Hong Kong study had the advantage of ensuring that extraneous variables, such as variations in course content, were eliminated while enabling the sampling of over 200 students. However, confining the scope of the study also had the drawback of qualifying the conclusion regarding the effect of classroom leadership style on SET scores due to the sample of classes involved being limited to the 10 taking the course in the academic year in which the research was undertaken.

In summary, the Hong Kong study indicated the potential for developing a classroom leadership instrument that facilitates valid and reliable measurement and retains the essence of the transformational-transactional or full range leadership model. Furthermore, there is evidence from the Hong Kong findings that the active characteristics of classroom leadership based on the full range leadership model are associated with positive classroom leadership outcomes. There is also an indication that perceived effectiveness in classroom leadership may have a positive impact on teachers' SET scores although this relationship needs to be established using a larger sample. These initial findings should be 'good news' for university

instructors under pressure generally to maintain or enhance SET scores because the findings point to a positive approach to enhancing the instructional experience via effective classroom leadership. This must be preferable to various attempts to ‘curry favor’ with students that have no educational value and which are reportedly employed by some instructors in order to enhance their SET scores (see, for example, Bauer, 1996; Crumbley, 1995; Emery, 1995; Handlin, 1996; Ryan et al., 1980; Sacks, 1996; Simpson & Siguaw, 2000). In addition to the potential of effective classroom leadership for enhancing educational processes and outcomes, it is also hoped that the results of the Hong Kong study are of interest to scholars in the fields of leadership, education or both and provides them with a platform for further research.

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Table 1: LISREL Output for Two Models of Classroom Leadership Based on Spearman's rho Correlation Matrix - Rule of Thumb Standards and Goodness of Fit Indices

<i>Goodness of Fit Index</i>	<i>Rule of Thumb Standard for Acceptance of Model</i>	<i>Classroom Leadership (Contingent Reward a Transactional Factor)</i>	<i>Classroom Leadership (Contingent Reward a Transformational Factor)</i>
Goodness of Fit (GFI)	≥ 0.9	0.934 (0.952)	0.924 (0.953)
Adjusted Goodness of Fit (AGFI)	≥ 0.9	0.900 (0.926)	0.884 (0.928)
Standardized Root Mean Square Residual (SRMR)	≤ 0.8	0.063 (0.054)	0.114 (0.053)
Root Mean Square Error of Approximation (RMSEA)	≤ 0.1	0.085 (0.070)	0.092 (0.068)
Comparative Fit Index (CFI)	≥ 0.9	0.937 (0.943)	0.918 (0.946)
Incremental Fit Index (IFI)	≥ 0.9	0.937 (0.943)	0.918 (0.946)
Non-Normed Fit Index (NNFI)	≥ 0.9	0.919 (0.932)	0.894 (0.930)

Note: Figures in parenthesis based on a Pearson product-moment correlation matrix as data input.

Table 2: Cronbach's Alpha Scores for the Classroom Leadership Dimension Scales

<i>LEADERSHIP DIMENSION</i>	<i>NO OF ITEMS IN SCALE</i>	<i>CRONBACH'S ALPHA</i>
Idealized Influence (Attributed)	4	0.75
Idealized Influence (Behavior)	4	0.60
Inspirational Motivation	4	0.63
Intellectual Stimulation	4	0.70
Individual Consideration	4	0.68
Contingent Reward	4	0.62
Management-by-Exception (Active)	4	0.75
Management-by-Exception (Passive)	4	0.70
Laissez Faire Leadership	4	0.71
Extra Effort	3	0.85
Effectiveness	4	0.81
Satisfaction	2	0.66

n=217

Table 3: Overall Correlation Matrix (All Teachers and All Respondents)

(Spearman's rho)

	IIA	IIB	IM	IS	IC	CR	MBEA	MBEP	LF	EE	E	S
IIA	-											
IIB	.316**	-										
IM	.411**	.364**	-									
IS	.371**	.274**	.270**	-								
IC	.318**	.321**	.324**	.342**	-							
CR	.292**	.291**	.365**	.338**	.361**	-						
MBEA	.345**	.302**	.313**	.310**	.371**	.315**	-					
MBEP	-.079*	.035	.067*	.052	.093**	.152**	.114**	-				
LF	-.013	.059	.032	.039	.044	.019	.118**	.393**	-			
EE	.405**	.319**	.342**	.353**	.324**	.279**	.367**	.017	.057	-		
E	.474**	.309**	.320**	.383**	.294**	.365**	.381**	.020	.037	.521**	-	
S	.425**	.343**	.289**	.323**	.317**	.209**	.280**	-.096*	-.133**	.498**	.467**	-

** Correlation is significant at the .01 level (2-tailed).

* Correlation is significant at the .05 level (2-tailed).

n = 217

Table 4: Classroom Leadership Outcome Scores and SET Scores – Correlation Analysis

		Effectiveness	Satisfaction	Extra Effort	Overall
Spearman's rho	SET	0.517	0.444	0.486	0.419
	Sig. (2-tailed)	(0.126)	(0.199)	(0.154)	(0.288)
Pearson's <i>r</i>	SET	0.409	0.343	0.352	0.399
	Sig. (2-tailed)	(0.241)	(0.331)	(0.318)	(0.254)

n = 10