Perceived Leadership Behavior of Physical Education Teacher-Coaches: When They Teach vs. When They Coach

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The objective of the study was to see whether a teacher-coach exhibits different types of leadership behavior when s/he teaches a PE class and coaches a group of athletes. The participants in this study were 17–18 year old second-year preuniversity students from two local junior colleges in Singapore. A total of 159 students of mixed gender participated, including 80 PE students and 79 student-athletes from floorball, canoeing, and shooting teams. All of the 159 students were taught or coached by three (one male and two female) PE teachers, who performed the dual roles of a PE teacher-coach in the school. The data collection instrument used in this study was the Leadership Scale for Sports (Chelladurai & Saleh, 1980) measuring five leadership behaviors. A multivariate analysis of covariance indicated that democratic decision making accounted for most of the differences between the PE students’ and student-athletes’ perceived leadership behavior of their teacher-coaches; the student-athletes perceived their coaches to provide training and instruction more than did the PE students. In addition to training and instruction, the student-athletes perceived more positive feedback given to them than did the PE students. For decision making style, students in PE class perceived more democratic decision making than athletes in school teams. The social support subscale did not show statistically significant group difference.

Keywords: coaching, physical education

The importance of the effective leadership in many instructional situations (e.g., teaching, coaching) has been well documented, and the necessary leadership skills of coaches/teachers have been identified in sport and educational literature (e.g., Chelladurai & Carron, 1983; Cheng, 1994; Sherman, Fuller, & Speed, 2000; Silva, Gimbert, & Nolan, 2000). For physical educators, leadership is also a critical element in performing their jobs. Unlike other professions, however, physical educators are often required to perform several roles such as teaching, coaching, and administrating (Ojeme, 1988) and to display different leadership styles in two educational situations (i.e., teaching and coaching). Whether a physical educator

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teaches a class or coaches a sport, both situations require a high level of leadership. Due to differences in learning objectives, group characteristics, and task characteristics between teaching and coaching (Chelladurai & Kuga, 1996), teacher-coaches are likely to display different leadership styles in each educational situation. Further, students and student-athletes may prefer different leadership styles in coaching and teaching and also perceive the leadership styles of their teacher-coaches differently in the two instructional settings. However, different leadership styles in the two instructional settings have been rarely studied. Thus, in the current study, the perceptions of students and student-athletes toward the leadership behaviors of their teacher-coaches (i.e., training/instruction, feedback, social support, and decision making styles) in the two different educational settings (i.e., teaching physical education lessons vs. coaching sports) were explored.

**Role Identities of Teacher-Coaches**

The Ministry of Education in Singapore introduced the Co-Curricular Activity (CCA) system as an essential part of school education. Outside the standard school curriculum, all students at preuniversity levels, except primary schools, must attend at least one CCA program among the four main CCA groups: sports, performing arts, uniformed groups, and clubs/societies. Particularly, the participation in the sports CCA has increased due to youths’ growing interests in sports (Singapore Sports Council, 2005) and the variety of sports programs in the sports CCA. Therefore, physical educators are required to play dual roles as teachers and coaches. This may compromise teaching or coaching effectiveness, given that an individual comprises multiple role identities related to different contexts (Ervin & Stryker, 2001; Piliavin & Callero, 1991). Although the roles of teachers and coaches may seem similar in the overall subject matter and some curricula (Hastie & Saunders, 1992), teaching and coaching are different professions with different program objectives, student motivation, ability level, and administrative support (Rupert & Buschner, 1989).

In addition, even though sports often form part of the physical education curriculum, the learning outcomes of physical education and competitive school sports remain distinct. In physical education, the frequently cited goals are to foster physical activities and positive social experiences (Todorovich, 2001) and teach the value of lifetime physical fitness (Walling & Duda, 1995), while sports CCA is more focused on developing and specializing students who are talented in specific sports. When teaching physical education classes, teachers attend to many students of varying levels of ability, to whom physical education is made compulsory as a subject in a school curriculum. On the other hand, when coaching, the teachers aim to help relatively small numbers of highly motivated student-athletes who usually participate voluntarily, enhance their skills, and fulfill their potential to achieve sporting excellence. Therefore, the professional practices and roles of teaching and coaching differ according to the respectively desired outcomes (O’Connor & Macdonald, 2002).

According to the identity theory (Ervin & Stryker, 2001), a person possesses several role identities (e.g., a physical educator and a coach), and some role identities are more salient than the others. In addition, these salient role identities are influenced by the level of the person’s commitment to each role and strengthen him/her to perform the expected behaviors which are specific to that role (Ervin & Stryker; Conner & Armitage, 1998). In juggling dual roles of a physical educator and
a coach and attempting to fulfill the expectations of both roles together, a teacher-coach may experience both cognitive dissonance and physical strains which cause him/her to devote more time and energy toward one role than the other (Figone, 1994). Researchers have indicated that a preferred role was coaching while a role of a physical educator was compromised (Chu, 1984; Sage, 1987). The differences between the teaching and athletic environment could prompt teacher-coaches to choose coaching as their primary role (Aicinena, 1999). Examples of these differences are a higher level of motivation possessed by athletes compared with students in physical education classes and a school administration placing more value in succeeding in competitive sports than in physical education (Chelladurai & Kuga, 1996). These factors could lead physical education teacher-coaches to believe that they should direct more effort in coaching (Aicinena, 1999).

**Leadership Theories**

Leadership, broadly defined as “the process of influencing the activities of an individual or group to achieve certain objectives in a given situation” (DuBrin, 1990, p. 255), has been extensively studied in industry and academia. Early research in leadership focused on either the traits or behaviors of the leaders. The trait approach assumes that great leaders are born and not made, that is, effective leadership arises from innate personality dispositions rather than from learning (Stogdill, 1974). On the other hand, the behavioral approach assumes that one could learn to be an effective leader by learning and applying behaviors or styles that other effective leaders use (e.g., Katz & Kahn, 1952; Halpin & Winer, 1957). However, the trait and behavioral approaches have been criticized for their heavy emphasis on leaders’ personal factors without considering the interactions between members and situational constraints (e.g., Fiedler, 1967; Hersey & Blanchard, 1984; House, 1971). Thus, recent leadership models were developed based on situational approaches that effective leadership styles can vary based on both the situations and the characteristics of members (e.g., Fiedler’s the contingency theory; Hersey & Blanchard’s situational theory; House’s path goal theory).

Similar to the evolution of leadership theories, many earlier psychologists were interested in personal differences and its influence on problem solving and the decision making process of a leader (e.g., Lawrence, 1982; McCaulley, 1987; Myers & McCaulley, 1985). Huit (1992) categorized people’s personality using Myer-Briggs Type Indicator and proposed that leaders with different personalities should exhibit different types of problem solving and decision making. This line of research implies that individual differences could play a significant role in determining one’s problem solving and decision making styles. However, they also reserve possible influences from other than one’s personality (e.g., knowledge base and adequate level of thinking; see Huit, 1992). Thus, other researchers emphasize the influence of situational factors on leaders’ decision making style (e.g., Chelladurai, 1999; Chelladurai & Arnott, 1985). Chelladurai cited Vroom and his colleagues’ proposition that “the influence of situational attributes was approximately four times the influence of individual difference (i.e., personal) factors on managers’ choices of decision styles” (p. 178).

In the context of sport and exercise, the dimensions of leadership include decision-making processes, provision of feedback, motivational techniques,
development of interpersonal relationships, and giving direction to individuals or teams (Weinberg & Gould, 2003). A physical education teacher-coach deals with all these dimensions when teaching a physical education class as well as coaching a sports team. However, in attempting to apply various leadership theories to sport settings, researchers failed to take the unique characteristics of sport into consideration. For example, when a leader provides his/her members with instructions in sport settings, it could be quite different from ones in office/classroom settings. A teacher or a coach needs to physically demonstrate necessary techniques when it pertains to physical education or sports.

To specifically examine leadership effectiveness in the sporting contexts, Chelladurai (1978) developed the Multidimensional Model of Leadership (MML). In this model, he concluded that an athlete’s performance and satisfaction are dependent on the interactions among three types of coaching behaviors: required behavior, actual behavior, and preferred behavior of athletes. The congruence of these three coaching behaviors is positively related to athletes’ performance and satisfaction. Further, the three coaching behaviors are determined by three antecedent factors: situational, coach, and athlete characteristics (Chelladurai, 1993). The situational characteristics include factors such as organizational structure and environment (including variables such as type of sports, size of team, and task variability) and mainly determine the required behavior of the coach (Chelladurai, 1993). The actual coaching behavior is deemed to be influenced by the coach’s personal characteristics, such as age, gender, experience, and ability (Chelladurai, 1993). The preferred behavior is determined by the situational characteristics as well as the member characteristics (e.g., athletes’ individual characteristics like age, gender, personality and ability; Chelladurai, 1993).

Coaching Leadership. Leadership studies in sport settings have been mainly centered on coaching leadership (e.g., Chelladurai & Carron, 1983; Sherman et al., 2000). Many of these studies have used the Leadership Scale for Sports (LSS) to test interactions of variables in the MML. Researchers have examined the interactions between athlete characteristics and situational characteristics, and preferred coaching leadership behavior of athletes (Sherman et al.). For example, as athletes get mature, they prefer an autocratic and supportive style of leadership (Chelladurai & Carron; Horn, 2002). Horn suggested that more mature athletes were usually more serious about their sports and, therefore, preferred a coach who was efficient and organized, and at the same time supportive of the athletes. The effect of the athlete’s gender on preferred leadership has also been a research interest. Previous studies have found that male athletes preferred autocratic and social support coaching behaviors while female athletes preferred democratic behavior and participatory style of coaching (Beam, Serwatka, & Wilson, 2004; Chelladurai & Saleh, 1980; Martin, Jackson, Richardson, & Weiller, 1999; Sherman et al.; Terry, 1984). Situational factors such as a type of sports also influence the type of coaching behavior preferred. Athletes in highly interactive team sports such as soccer and basketball preferred an autocratic style of coaching more than did athletes in individual sports such as swimming and bowling (Chelladurai, 1990). Within sports, athletes performing different tasks may also differ in their coaching preferences. For example, Riemer and Chelladurai (1995) found that defensive players in football teams preferred greater amounts
of democratic and social support behaviors than did offensive players in football teams. These studies suggest that athlete characteristics, the relationship between coaches and athletes, and situational factors may influence athletes’ preferred leadership of their coaches. In the physical education setting, however, little is known about the relationship of leadership behaviors of physical educators and their interactions with students.

**Teaching (Instructional) Leadership.** Although the current definition of teacher leadership often includes the concepts of the teachers’ leadership roles in and out of classroom (Silva et al., 2000), the traditional idea of teacher leadership has been discussed mainly in the classroom context (Cheng, 1994). Borrowing from organizational theories, a classroom consisting of a group of students and a teacher is a small social organization. The teacher and students are considered the leader and his or her followers, respectively. Most research in teaching (instructional) leadership has focused on the behaviors of the leaders (i.e., teachers). Cheng measured the instructing effectiveness and students’ preference on the behaviors of teachers in the classroom setting by using two dimensions of leader behaviors, the levels of consideration (i.e., a friendly and caring manner of the teacher) and initiating structure (i.e., goal or task orientation of the teacher). Cheng found that teachers who scored high on both consideration and initiating structure were better for leading a class of students whereas teachers who scored low on both consideration and low initiating structure were ineffective for promoting learning and students’ affective outcomes. In addition, several scholars have identified other effective leadership behaviors and skills for teachers such as rapport building, resource usage, and work management (Darling-Hammond & McLaughlin, 1995; Lieberman, Saxl, & Miles, 1988). As described above, most research in teaching leadership was limited to leadership behaviors in general education settings.

**Research Hypotheses**

Based on the role identity and situational differences between a teacher and a coach, five hypotheses regarding leadership styles of the teacher-coach were proposed for the current study. Piéron and Goncalves (1987) reported similar outcomes that teacher-coaches gave feedback more frequently during coaching than teaching. Specifically, positive prescriptive feedback was used more frequently in coaching while negative prescriptions and negative affective feedback were given more frequently in teaching. More recently, Hardin (1999) investigated teaching attributes of expert coaches in their dual roles of physical education teachers and coaches. Hardin found that they exhibited different pedagogical characteristics in teaching and coaching. The teacher-coaches made plans for coaching sessions (i.e., salient role), not for physical education lessons and focused more on instruction in coaching than they did in physical education classes. From the above studies, a couple of hypotheses were developed for training and instruction and positive feedback of physical education teacher-coaches.

Hypothesis 1: Student-athletes perceive that their coaches provide training and instruction more often than physical education students perceive that of their physical education teachers.
Hypothesis 2: Coaches are perceived to give more positive feedback to student-athletes than do physical education teachers to physical education students.

According to the role identity theory, teacher-coaches would perceive his or her roles and responsibilities differently based on their roles (Ervin & Stryker, 2001). That is, coaches whose role includes taking good care of physical and psychological conditions of athletes might be more interested in athletes’ well-being than teachers whose main role is to deliver knowledge and skills. Furthermore, teaching and coaching differ in terms of instructor-student ratio, activity, time availability, and availability of equipment and facilities (Figone, 1994). Physical education teachers can only see their students for limited hours (usually two hours) a week whereas a coach’s contact with his or her athletes may extend up to 10 hours a week. In addition, in Singapore, physical education classes typically consist of 40 students, which are usually larger than sports teams, and the teacher-student ratio tends to be quite high. Also a teacher is usually in charge of many different classes than one specific class. This evidence should make a significant difference in level of social support (i.e., leaders’ interests in members’ personal welfare and personal care) for students and athletes in physical education and school team environments. Based on the role identity theory and the comparison made between the physical education and sports environments, a hypothesis was developed as below.

Hypothesis 3: Coaches are perceived to give more social support to student-athletes than do physical education teachers to physical education students.

Research hypotheses on decision making styles of teacher-coaches (i.e., democratic and autocratic decision making) were developed by exploring literature on individual and situational differences and their influences on decision making. Although there has been a conflict in what is a determining factor in leaders’ choice of decision making style, more recent studies highlight the importance of situational factors such as problem attributes and situational differences (e.g., Chelladurai & Kuga, 1996; Hackman & Oldham, 1980). Chelladurai and Arnott (1985) found that problem attributes influenced basketball players’ preference for a particular decision making style used by their coaches more than individual differences. Further, Chelladurai and Kuga asserted that teachers have less autonomy which leads to “a perception of personal responsibility” (p. 476) than coaches because teachers’ job is more regulated than coaches. While, in addition, the responsibility of physical education should be assumed by a school not by an individual physical education teacher, the responsibility on the performance of a school sports team is totally assumed by a coach. Given the level of autonomy associated with the job tasks, the coach has more authority on decision making, invested in the position and the degree of control (Chelladurai & Kuga, 1996). Based on these previous studies, two research hypotheses were developed as below.

Hypothesis 4: Teacher-coaches exhibit a more democratic decision making style when they teach a physical education class than coaching a sport team.

Hypothesis 5: Teacher-coaches exhibit more autocratic decision making style when they coach a sports team than when they teach a physical education class.
Method

Participants

The participants in this study were 17–18 year old second-year preuniversity students from two local junior colleges in Singapore. One hundred and fifty-nine students of mixed gender participated, including 80 physical education students (49 males and 31 females) and 79 student-athletes (59 males and 26 females) from college floorball, canoeing, and shooting teams. All of the 159 students were taught or coached by one male or one of two female physical education teachers, who performed the dual roles of a physical education teacher-coach in the school. One female teacher coached the floorball (i.e., an indoor field hockey with plastic ball and stick) team, another female coached the canoeing team, and the other male coached the shooting team. The physical education students had been taught by the teachers for over a year, and the students were introduced a wide range of activities, including fitness training and games. The floorball and canoeing athletes, each consisting of a boys’ team and a girls’ team, and the shooting athletes representing a boys’ team had also been coached by their teacher-coaches for over a year. Both the boys’ and girls’ floorball teams emerged as champions in the national inter-school floorball competition in the previous year. Therefore, all the students had competition experience, and their skill levels were relatively high. The canoeing and shooting teams also had relatively extensive competition experience having taken part in at least five different competitions at the interschool level in the past year.

Instrument

The data were collected using the Leadership Scale for Sports (LSS). The original LSS was a 40-item questionnaire developed by Chelladurai and Saleh (1980) to assess five dimensions of leadership behavior in a sport context. The dimensions include a) training and instruction—behavior aimed at improving athlete performance by facilitating training; b) democratic behavior—behavior allowing athletes to participate in decisions about group goals, practice methods, game tactics, and strategies; c) autocratic behavior—behavior using a coach’s independent decision making and stressing his or her authority when working with athletes; d) social support—behavior concerning the welfare of athletes and building warm interpersonal relationships with them, regardless of athletes’ performance; and e) positive feedback—behavior consistently praising or rewarding athletes for good performance (Chelladurai & Saleh). Particularly, democratic and autocratic behaviors (14 items) were decision-making style factors, social support and positive (13 items) were motivational factors, and training and instruction (13 items) was a task factor. The scale has been used in various sport settings and considered sound (e.g., Chelladurai, & Arnott, 1985; Chelladurai & Haggerty, 1989; Sherman et al., 2000). A recent study tested the psychometric properties of the LSS and showed a fair fit to the data, $\chi^2 = 1493.24$, $\chi^2/df = 2.05$, RMSEA = .061 ($CI = .057$, .063, $p < .01$), CFI = .97, NFI = .93 (Kwon, Koh, Pyun, & Wang, in press).

There were three versions of the original questionnaire: athlete preference, athlete perception, and coach perception. The preference version measures what members want their coaches to be or to do as a leader. The perception version
measures how the members perceive their coaches’ leadership behavior, and the
coach perception version is a self-evaluation of coaches on their leadership behavior.
For the current study, the athletes’ perception version was used. In addition, for the
questionnaire administered to the physical education students, some of the terms
were changed for them to be relevant in the physical education context. The terms
“coach”, “athletes”, “group/team” and “sport” were changed to “physical education
teacher”, “students”, “class” and “game”, respectively.

The participants responded to each questionnaire item by grading their per -
ceptions on a five-point Likert scale. The scoring of each item was as follows: 1
= never, 2 = seldom (about 25% of the time), 3 = occasionally (about 50% of the
time), 4 = often (about 75% of the time) and 5 = always. The participants were also
asked to indicate their gender and name of their teacher or coach. For the athletes,
they were asked to indicate their sports (e.g., floorball, canoeing, and shooting)
and years of experience in the sports as well.

Procedure
Consent was obtained from all participants before the questionnaires were admin-
istered. The participants were assured that their identity would remain confidential
and that they had a right to withdraw or discontinue at any time. The questionnaire
was explained and administered after a regular training session for the student-
athlete group, and after a physical education lesson for the physical education
student group. The physical education teacher-coaches were not present at the time
of administering the questionnaire.

Data Analyses
First, the data set was examined to detect outliers and missing values. The Mahala-
nobis distance test showed no outlier, and the data also did not contain any missing
values. All the responses from 159 students were used for data analyses. Next, for
each scale, descriptive statistics were obtained for each of the five dimensions,
including tests for skewness and kurtosis. Reliability was measured with Cronbach’s
alpha. Finally, the group difference tests were done with a multivariate analysis
of covariance (MANCOVA). Because the data were collected for three different
physical education teacher-coaches, the individual difference was controlled by
using it as a covariate.

Results
Descriptive statistics, skewness, kurtosis, and Cronbach’s alpha values for the
perceived version are reported in Table 1. The data from the perception scale were
normally distributed. Cronbach’s alpha coefficients for the subscales of the percep-
tion version of the LSS were higher than the recommended value of .70 except the
autocratic subscale (Nunnally & Bernstein, 1994). The coefficient for autocratic
behavior was .57. Given the poor internal consistency of the autocratic behavior,
it was not considered for further analyses and discussion.
A MANCOVA indicated a significant difference between the physical education students and the student-athletes in their perceptions of teacher-coaches’ leadership behaviors; Wilks’s Lambda = .79, $F(4, 153) = 10.91, p < .000, \eta^2 = .22$. The follow up univariate analyses in Table 2 indicated that democratic behavior accounted for most of the differences between the physical education students’ and the student-athletes’ perceived leadership behavior of their teacher-coaches, $F(1, 156) = 9.80, p = .002, \eta^2 = .059$. The physical education students perceived their coaches to provide democratic behavior more than did the student-athletes. In addition to democratic behavior, training and instruction, $F(1, 156) = 6.32, p = .013$, and positive feedback, $F(1, 156) = 7.59, p = .007$, showed a statistical difference between the physical education students and the student-athletes, albeit with minimal effect sizes ($\eta^2 = .04$, and .03, respectively). The student-athletes perceived more training and instruction and positive feedback than the physical education students. However, there was no significant difference in social support, $F(1, 157) = 1.17, p = .281$, between the physical education students and the student-athletes, failing to support the hypothesis 3. A statistical power value of social support was .11.

### Table 1  Descriptive Statistics for the Subscales in the LSS (Perception Version)

<table>
<thead>
<tr>
<th>Subscale</th>
<th>$M$</th>
<th>$SD$</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training &amp; instruction</td>
<td>3.82</td>
<td>.44</td>
<td>.06</td>
<td>.16</td>
<td>.83</td>
</tr>
<tr>
<td>Democratic behavior</td>
<td>3.28</td>
<td>.67</td>
<td>.09</td>
<td>-.25</td>
<td>.87</td>
</tr>
<tr>
<td>Autocratic behavior</td>
<td>2.57</td>
<td>.57</td>
<td>.23</td>
<td>-.09</td>
<td>.57</td>
</tr>
<tr>
<td>Social support</td>
<td>2.76</td>
<td>.73</td>
<td>.27</td>
<td>.18</td>
<td>.85</td>
</tr>
<tr>
<td>Positive feedback</td>
<td>3.61</td>
<td>.63</td>
<td>-.23</td>
<td>.25</td>
<td>.83</td>
</tr>
</tbody>
</table>

### Table 2  Descriptive Statistics and MANCOVA for the Physical Education Students’ and the Student-Athletes’ Perceptions of Leadership Behaviors

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Students ($n = 80$)</th>
<th>Student-Athletes ($n = 79$)</th>
<th>$F$</th>
<th>$p$</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training &amp; instruction</td>
<td>3.73 .47</td>
<td>3.91 .38</td>
<td>6.32</td>
<td>.013*</td>
<td>.039</td>
</tr>
<tr>
<td>Democratic behavior</td>
<td>3.40 .63</td>
<td>3.16 .68</td>
<td>9.80</td>
<td>.002*</td>
<td>.059</td>
</tr>
<tr>
<td>Social support</td>
<td>2.70 .75</td>
<td>2.82 .70</td>
<td>5.4</td>
<td>.462</td>
<td>.003</td>
</tr>
<tr>
<td>Positive feedback</td>
<td>3.47 .67</td>
<td>3.75 .57</td>
<td>7.59</td>
<td>.007*</td>
<td>.046</td>
</tr>
</tbody>
</table>

*p < .05
Discussion

This study investigated perceived leadership behaviors of physical education teacher-coaches. Specifically, it was primarily designed to examine group differences between physical education students and student-athletes in their perception of physical education teacher-coaches’ leadership in the following dimensions: training and instruction, positive feedback, social support, and democratic behavior. The results indicated that there were significant group differences in perceptions of leadership behaviors in training and instruction, democratic behavior, and positive feedback, as indicated in the hypotheses.

The first hypothesis was that student-athletes would perceive their coaches to provide training and instruction more often than physical education students would perceive that of their physical education teachers. This hypothesis was supported in this study. This finding was in line with Rupert and Buschner’s (1989) study which found that teacher-coaches spent more time giving instructions in coaching situations while they spent more time in management when teaching. A possible explanation for the teacher-coaches to provide less training and instruction when teaching physical education could be a lack of time. Compared with coaching sessions, physical education lessons were relatively rushed episodes lasting less than 45 minutes for each lesson. Often, lesson time was significantly reduced when one took into account the time taken by students to get changed and report for class, as well as administrative activities such as marking of attendance by the teachers. Therefore, when the lesson finally got started, the teachers could be in a hurry to get the students engaged in games or activities, keeping instructions brief. A primary objective of physical education is to provide students educational environment to perform and enjoy a variety of physical activities with understanding. The fact that physical education encourages active participation in physical activities as opposed to focusing on training students to be elite sports athletes could also explain the lesser emphasis placed by the physical educators on training and instruction behavior. In terms of coaching, Chelladurai and Kuga (1996, p. 474) indicated the “zero-sum nature of athletic competitions”, which meant that only one winner could survive in a competition. The performance of a sports team from sports competitions directly results in a school’s reputation. For example, one of the core businesses of teacher-coaches in Singapore is to provide a platform for schools to benchmark their achievement through interschool sports competitions (MOE, 2007, October 22). Therefore, coaches in Singapore are forced to spend more time and effort to instruct skills, techniques, and tactics to improve athletes’ performance.

The second hypothesis was supported. That is student-athletes perceived their coaches to provide more positive feedback than physical education students perceived their teachers to do so. This was consistent with Piéron and Goncalves’ (1987) study in which they observed that teacher-coaches tended to provide more positively prescriptive feedback more frequently in coaching situations, and more negatively prescriptive and affective feedback in teaching situations. Similarly, Mancini and Agnew (1980) observed that there were more interactions between students and teacher-coaches in the coaching setting by providing more praise and acceptance when coaching than when teaching. In addition, Chelladurai and Kuga (1996) indicated that one of differences between teaching and coaching is the size of groups a physical educator and a coach manage. In Singapore, a physical
education class consists of around 40 or more students while a sports team may include a lesser number of athletes. Because a coach may control a smaller size of the group, it is true that there are more opportunities for the coach to provide effective feedback to each athlete in a team.

The third hypothesis about social support was not supported. There was no statistically significant group difference between the physical education students and the student-athletes on social support ($p = .462$) although the direction of mean scores for the student-athletes (i.e., 2.82) and the physical education students (i.e., 2.70) turned out as hypothesized. One possible explanation can be derived from the Fiedler’s (1967) contingency model of leadership. Fiedler stated that the main focus of the model was related to leaders’ personalities, and the styles of the leaders were categorized as either task-oriented (e.g., training and instruction) or relation-oriented (e.g., social support) leaders (Chelladurai, 1999). In the Fidler’s model, “leadership effectiveness is contingent upon the fits between the leader’s style and the situational favorableness” (Chelladurai, p. 168). As the student-athletes voluntarily select their CCA sports teams, the athletes and the coaches share common organizational goals, resulting in “a great degree of congruence” among the athletes, the coaches, and the teams (Chelladurai, p. 169). Based on Chelladurai’s conclusion, it seems that coaches who are more task-oriented rather than relation-oriented may be more effective (consistent with the discussion for the hypothesis 1) in Singapore situation. The researchers initially developed this hypothesis given the two situational factors, the duration of contact and the group size (Chelladurai & Kuga, 1996), between the two different settings. However, because the two settings are still involved in sport situations, the favorable environments may cause the teacher-coaches to exhibit less social support behaviors and more task-oriented behaviors. The low mean scores in two groups may have produced theses results.

The fourth hypothesis was also supported. The teacher-coaches showed significantly different type of decision making in two different settings (i.e., physical education class and school team), which indicated that the teacher-coaches’ decision making was primarily determined by the situation and role identity. This finding is aligned with Vroom and his colleagues’ proposition (Vroom & Jago, 1988; Vroom & Yetton, 1973) that the influence from situational attributes is much greater than individual differences. The teacher-coaches used more democratic decision making style when they taught physical education classes than when they coached student athletes.

Limitations and Recommendations for Future Study

Unfortunately, as was frequently the case in previous studies (Chelladurai & Carron, 1981; Chelladurai & Saleh, 1980; Sherman et al., 2000; Sullivan & Kent, 2003), the internal consistency estimate (Cronbach’s alpha) for autocratic behavior was less than .70. This effectively ruled out any conclusion with regards to autocratic behavior of the teacher-coaches in this study. In future research, the subscale of autocratic decision making may need to be excluded until future modification is made on this subscale. Meanwhile, assuming that autocratic and democratic decision making styles occupy two ends of a decision making style continuum, researchers may use the democratic subscale only to cover the two different aspects of decision making style.
Although this study provided valuable findings on teacher-coaches’ perceived leadership, a future study needs to examine this with different settings such as different populations and different sample sizes. The current study cannot guarantee that the results would be replicated with other populations in different cultural settings. Particularly, future research needs to be done in other countries where different sizes of a physical education class is available (e.g., bigger than 40 or smaller than 40 students in a physical education class). The results with different sizes of physical education classes will be able to verify several assumptions made throughout the current study. In addition, to improve the generalizability, the study needs to be replicated in other cultures such as the United States or European countries where individualism is more appreciated than collectivism.

If the researchers would have collected the data from more students to secure bigger sample sizes in each cell, there could have been a better chance of rejecting the hypothesis 3. Since the directions of the mean scores in social support between the two groups were following the hypothesis, with bigger sample sizes, the hypothesis would have been supported. The assessments of power for the significance tests also indicated that the power value of the social support variable was quite low. Given the effect size, future researchers need to prepare bigger sample sizes to achieve the recommended power value of .70 (Stevens, 1996). Another recommendation for future research is to examine the effect of the gender of teacher-coaches. For the current study, the possible effect of the teacher-coaches’ gender was not examined because of a disproportionate number of respondents from male and female teacher-coaches. Future research with appropriate data will be able to examine whether gender of instructors determines their leadership styles. In addition to examining the effect of instructors’ gender, the type of activity also needs to be examined in future studies. In the current study, the student-athletes from different types of activities (e.g., team sport and individual sports) were included and, thus possible effects from type of sports were not examined. A future study can systematically collect data from team sports and individual sports to see if types of sports influence student-athletes’ perceptions on teacher-coaches leadership behaviors.

References


