



# INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES



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ISSN: 2222-6990

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To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v9-i1/5862>

DOI: 10.6007/IJARBSS/v9-i1/5862

**Received:** 12 Dec 2018, **Revised:** 30 Dec 2019, **Accepted:** 12 Jan 2019

**Published Online:** 28 Jan 2019

**In-Text Citation:** (Ananthan, 2019)

**To Cite this Article:** Ananthan, S. (2019). The Impact of Leader Development Climate on Participation in Leadership Roles of Military Cadets. *International Journal of Academic Research Business and Social Sciences*, 9(1), 1309–1321.

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**Vol. 9, No. 1, 2019, Pg. 1309 - 1321**

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## The Impact of Leader Development Climate on Participation in Leadership Roles of Military Cadets

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### Abstract

Leadership is learned through experience. Hence, a supportive leader development climate is necessary to help individuals learn and enhance their desire to participate in leadership roles. This research examines the impact of the leader development climate on the participation in leadership roles of military cadets in a defense university. This cross-sectional study is based on data collected through a questionnaire survey under anonymous conditions from final year military cadets in Malaysia. Data was analyzed using SPSS (Version 23.0, 2016). The results show that curriculum design, instructor competence and senior/peer influence had a significant impact on the propensity of military cadets' participation in leadership roles. However, a multiple regression analysis indicates that the influence of seniors and peers had the single most meaningful impact on their decision to participate in leadership positions. In addition, male cadets took on leadership roles more frequently than their female counterparts did. This research provides recommendations for pragmatic changes in policy vis-à-vis creating a climate that enhances leadership development.

**Keywords:** Leader Development, Climate, Participation in Leadership Roles, Military Cadets

### Introduction

In today's complex world, leadership is increasingly seen as a crucial dimension for organizational success. According to Taylor and McIntosh (2012), in the past it was generally accepted that only people at the very top needed to possess effective leadership capacities. However, with globalization and the accompanying challenging and sometimes chaotic work environment, "leadership skills are needed throughout organizations as professionals need to drive change, influence others, adapt to rapidly changing circumstances, and lead cross-boundary project teams" (p.1). Hence, many organizations are spending considerable time and large amounts of financial resources in developing leaders through multiple approaches (Marsh & McLennan, 2013).

One way of developing leaders is by allowing them to take on tough challenging roles with the intention of making them learn leadership skills through the experiential method. As suggested by Day (2001), leadership development is a process that requires not only knowledge, but also time and experience. Similarly, Dugan, Komives and Segar (2008) advocated that leadership be learned

through experience and interaction with groups of people sharing common identities. Military officer cadets undergoing an undergraduate degree program in a defense university are expected to build their leadership capacity during the 4 to 5 years of their training. Besides receiving academic knowledge on leadership, they are expected to learn to lead through participation in leadership roles. Several interviews with instructors at the military training unit undertaken by the researchers indicated that holding leadership positions for prolonged periods is not a vital criterion for graduation of military cadets. The existing system expects the cadets to acquire leadership capacity progressively through active participation in co-curriculum activities and military training. However, anecdotal evidence suggests that many military cadets keep away from taking up leadership positions, be it in classrooms, military training and co-curriculum activities. Hence, the purpose of this study is to determine if the prevailing organizational environment has a role in influencing the intensity of participation in leadership roles of these military cadets.

### **Objectives**

This study has four main objectives: (1) to determine the level of participation in leadership roles of military cadets and the level of leader development climate; (2) to determine the relationship between the leader development climate and participation in leadership roles; (3) to determine to what extent the dimensions of the leader development climate explains the variance participation in leadership roles; (4) to determine if there is a difference in participation in leadership roles with respect to gender. The paper is structured to elaborate the relevant empirical and theoretical evidence supporting the conceptual framework and research hypotheses. It then proceeds to describe the methodology and instrument. Subsequently, the validity and reliability of the measurement scale and hypothesis testing are discussed. Finally, discussion, implications, limitations and future research are elaborated.

### **Literature Review**

#### **Leader Development Model**

A notable contribution to the leader development literature is the conceptual model proposed by Klein and Ziegert (2004). According to them, leader development is a process whereby a leader gains knowledge and skills in executing effective leadership functions. This process requires appropriate work challenge, feedback and instruction. However, Derue and Wellman (2009) believed that there should only be an optimum amount of work challenge that eventually contributes to positive effects on the leader development effort. Beyond a certain level of work challenge, the experiential task becomes too difficult and the leader development quest takes on a diminishing returns path. Nevertheless, they stressed that continuous and appropriate feedback can offset the negative effects of too much developmental challenge. Hence, the proposed model by Klein and Ziegert (2004) that work challenges, feedback and instruction can change an individual and help the person grow, as a leader has to be treated with caution. Crucially, the model suggests that the receptiveness of the individual to change his or her leadership capacity over time is dependent on the organizational climate for leader development.

Bandura's Social Cognitive Theory (SCT) provides explanation on how cognitive (personal), behavioral and environmental aspects interrelate to regulate an individual's motivation and behavior (Crothers, Hughes & Morine, 2008). Consistent with this theory, Gholami et al. (2015) determined that a positive

climate contributes significantly to employee motivation and behavior to participate in leadership activities. A climate that inculcates leadership and building of leaders contributes to employee's desire to acquire skills related to that domain. Based on this theory (SCT) and findings of previous research, it can be assumed that the more positive is the climate for leader development where an individual's willingness to undertake leader roles is expected and rewarded, the more likely are individuals desire to attempt taking on leadership roles.

### **Leader Development Climate**

The constructs of organizational culture and climate has been researched most seriously since Schein (1965) suggested "...the organization is a complex social system which must be studied as a total system if individual behavior within it is to be truly understood" (p. 3). While culture refers to shared, enduring organizational norms, beliefs and values, climate refers to the current working environment and its effect on individual employee's perception and job satisfaction (Schneider, Ehrhart & Macey, 2013). In the last 15 years, the study of organizational climate in particular has progressed to provide deeper understanding as to how social-organizational variables such as support, conflict, work characteristics, and autonomy contribute to perceptions and meanings among organizational members and later into important organizational outcomes (Schneider, González-Romá, Ostroff & West, 2017). However, most organizational climate studies have tended to focus on specific outcomes such as safety and service (Schneider, Ehrhart & Macey, 2013). With almost no studies on climate for leadership development per se (Klein & Ziegert, 2004). Bosma and Kunnen (2001), through a detailed review of literature concluded that good organizational support (climate) and positive previous developmental outcomes encouraged individuals to participate in leadership roles. Similarly, Klein and Ziegert (2004) contend that a supportive organizational climate can help individuals to learn and enhance their desire to participate in leadership roles. As they undertake challenging tasks, individuals are likely to realize that their performance is short of the expected level and hence endeavor to change their behavior. Such realization can occur from extrinsic feedback from superiors and peers or personal intrinsic reflection. Feedback, reflection and further instruction provides the necessary guidance to work on enhancing future performance. According to the Centre for Leadership Development (CLD) of the Singapore Armed Forces (Chan, Singh, Ramaya, & Lim, 2005), a positive learning and leader developmental climate requires five different components, namely: (a) curriculum design; (b) superiors and instructors who are coaches and facilitators; (c) peers, colleagues and subordinates; (d) the motivated self; and (e) developmental tools and procedures. For the purpose of this study, only the first three components are appraised, as the last two components are deemed to relate to the evaluation of the individual self.

### **Curriculum Design**

One of the important dimensions of organisational climate for leadership is the learning environment. United States Army doctrine asserts, "Leadership develops when the individual desires to improve and invest effort, when his or her superior supports development, and when the organizational climate values learning" (Department of Army, 2012). Accordingly, the curriculum designed for leadership learning is of vital importance. Klein and Ziegert (2004) claimed that organizations, which create a positive learning environment usually, support, reward and expect employees to learn a broad range of leadership skills and knowledge. As alluded by Kolb's experiential learning theory

(Kolb, 2015), leadership development activities must take place on a daily basis as opposed to being isolated events or activities.

At the defense university, military cadets undergo a curriculum that is designed to teach them theoretical and conceptual knowledge of leadership in classrooms. Following Kolb's experiential learning theory, leadership development and learning requires routine participation and overcoming challenges associated with team and organizational leadership. Therefore, besides learning in a formal setting, military cadets are provided many opportunities to experience leadership through field training exercises, co-curriculum activities including participation in sports teams. Those who excel in these areas outside the classroom are usually given tangible rewards of various form.

### **Instructor Competence**

In the military setting, instructors have great influence on the overall development of military cadets (Lim, Chan, Ng & Lua, 2005). They not only play their traditional role as instructors but they are also seen as leaders by their trainees (Ting & Scisco, 2006). Instructors too are seen as a source of motivation and have a tremendous effect on their trainee's desire to endure the hardships of military training. Hardy, Shariff, Munnoch, and Allsopp (2004) found that instructor's transformational leadership qualities affected positively on military recruit's intention to continue their training beyond the induction phase. Military training institutions too tend to use instructors with experience to impart both knowledge and skills related to leadership as these individuals are able to impart military cultural norms and practical experiences to facilitate learning more effectively (Conger, 2010). Instructors are also expected to be role models as role modelling provides trainees the opportunity to adopt behaviors necessary to develop as leaders (Popper, 2005). Feedback is a necessary activity of leader development (Day, 2001). Patrick, Scrase, Ahmed, and Tombs (2009) through their research on effective behavior of military instructors found that trainees benefited greatly from frequent individualized feedback and correction they provided to those who followed their training closely. These attributes of instructors and their competence has a positive impact on how military cadets learn leadership. Hence, there is clear evidence that instructor presence and competence in imparting knowledge, role modelling behaviors and providing timely feedback and correction has a significant impact in creating a climate for leader development. Military cadets who are under the tutelage of such competent instructors feel confident and encouraged to participate in leadership roles.

### **Senior/Peer Influence**

Military training institutions create environments that enables senior cadets to participate actively in the development of junior cadets. They act as mentors, motivators and role models. Hence, military cadets experience a change in their behaviors through influences from both seniors and peers through constant involvement in socialization activities and training as part of their education and development (Boe, 2015; USMA, 2009). Literature on Leader Identity Development (LID) suggests that students enter college with a 'leader identified' view i.e. believing that some are leaders and others will follow these leaders. As they interact with peers and group members through various programs and activities in the college, they experience a developmental influence, which constantly changes the self-view. With exposure to college life, training and most importantly self-reflection,



they gradually change their stance and view that all can participate in leadership roles (Komives, Lucas & McMahon, 2013). Schunk and Pajares (2009), through their research on self-efficacy suggests that individuals develop their leader self-efficacy by participating in leader roles and receiving persuasion and feedback from their instructors, seniors and peers. Similarly, Komives, Owen, Longerbeam, Mainella & Osteen (2005) assert that key influences such as adult (instructors and seniors) guidance, peer (fellow cadets) encouragement, meaningful involvement i.e. the participation in leadership roles provides the individual, an environment to grow as a leader. As they undertake challenging tasks, individuals are likely to realize that their performance is short of the expected level and hence endeavor to change their behavior. Such realization can occur from extrinsic feedback from superiors and peers or personal intrinsic reflection. Feedback, reflection and further instruction provides the necessary guidance to work on enhancing future performance. Simultaneously, the environment may bring about situations whereby individual cadets take on leadership positions due to a demand placed upon them by their seniors. Pressure to contribute in leadership roles could also be generated by their peers as the numerous co-curricular and military training activities require individuals to take up this responsibility.

### **Participation in Leadership Roles**

Most leadership theorists concur that leaders are made and not born. They believe that adolescents in particular can learn and develop leadership capacities through active participation especially by holding leadership positions (Fertman, & Van Linden, 1999). Literature on leadership development among college students indicates that students build their leadership capacity through a variety of collegiate activities, which provide learning experiences. These include co-curricular activities, coaching, mentoring, industrial practicum placements, and holding actual leadership positions in clubs and organizations (Dugan, Fath, Shannon, Kathryn, & Joshua, 2013). According to Hirst, Mann, Bain, Pirola-Merlo and Richver (2004), young leaders who experience leadership on a daily basis, learn more from leader development training though not all will learn at the same pace. For those who participate actively in leadership roles that provides challenges, the potential for them to learn and grow is greater than those who experience little or no challenges. Hence, it is imperative that the process for leader development begins as early as possible with appropriate levels of challenging task (Warnick, Schmidt, & Bowden, 2014). Besides challenging work, participation in leadership roles can also be looked at in terms of quantity and quality of involvement (Chan & Drasgow, 2001). Quantity refers to the variety of involvement in team and organizational activities such as clubs, community service, and other group work, which provides opportunity to interact and develop interpersonal and organizational skills. Quality refers to actual leadership positions held which provides opportunities to encounter leadership challenges (Dugan & Komives, 2011). Participation in leadership roles also enhances knowledge about leading and the motivation to lead. This is usually followed up for a yearning to gain more experience to develop one's capacity to lead. Intentional practice of leadership skills is required to bring one to a higher level of expertise (Day, Harrison, & Halpin, (2009).

### **Conceptual Framework**

The literature reviewed thus far forms the foundation for the conceptual framework for the study as shown in Figure 1 below:

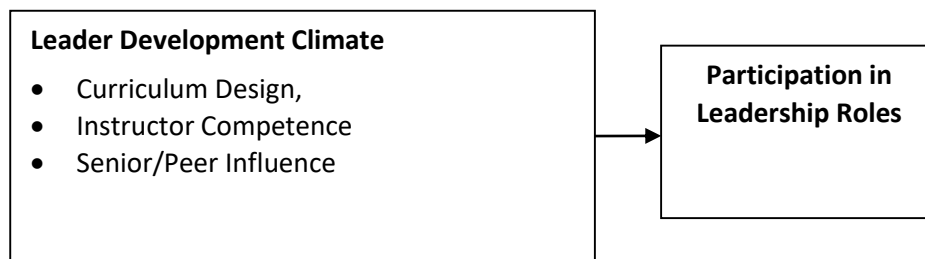


Figure 1: The Conceptual Framework of the Study

Based on the literature review and conceptual framework, it can be hypothesised that:

H1: Curriculum design will be positively related with participation in leadership roles.

H2: Instructor competence will be positively related with participation in leadership roles.

H3: Senior/peer influence will be positively related with participation in leadership roles.

H4: There is a difference in the Participation in Leadership Roles between male and female cadets.

## Methodology

### Instrument Development

Leader development climate was operationalized via three dimensions: curriculum design, instructor influence and senior/peer influence. Measurement items for each dimension was adapted from existing literature and rated on a 5-point scale (1 = strongly disagree to 5 = strongly agree). All items were modified and adapted from Lim et al. [16] in their study of design components of a leadership development program in the Singaporean military. The first dimension, curriculum design was assessed using a six-item scale. For each item, respondents were asked to evaluate both theoretical and practical leadership learning opportunities in the university. An example of an item in this scale is "Leadership lessons were imbedded in almost every activity in the university". High scores on these scales indicate that the existing curriculum and leader development experiences in the university is viewed positively by the military cadets. The second dimension, instructor influence was also measured using a six-item scale. For each item, respondents were asked to indicate the impact instructors had on their leadership development. A sample item in this scale is "Instructors provide appropriate feedback and guidance to develop my leadership abilities". High scores in these scales would indicate the military cadets have gained significantly in developing their leadership skills from their respective instructors. The third dimension, senior/peer influence was also measured using a six-item scale, three items evaluated the influence of seniors and the other items gauged the influence of peers. A sample item in this scale is "Leadership issues were often discussed by my seniors and friends and this helped enhanced my leadership ability". High scores in these scales would indicate the military cadets have gained substantially by learning to lead and developing their leadership skills from their seniors and peers. The independent variable, participation in leadership roles was measured using a four-item scale. An example of an item in this scale is "I often occupied leadership positions in groups, associations, teams, etc. whilst at the university". High scores in these scales would indicate military cadets' frequency and level of participation in leadership positions.

## Research Design

As this research employed the hypothetic-deductive research approach, a descriptive, non-experimental, cross-sectional survey research design was adopted. It allows for the collection of quantitative data in a highly economical manner. The collected data can be subsequently analyzed using descriptive and inferential statistics to test the hypothesis (Saunders, Lewis & Thornhill, 2009). This method utilizes the opinion and perception of participants to determine the correlations between more than one continuous quantitative endogenous variables with continuous quantitative exogenous variables. This research design was deemed appropriate to meet the objectives of the study. Data was collected through survey; usable responses from 273 final year military cadets were gathered.

## Data Analysis and Findings

Table 1 shows the values of Cronbach's alpha for the variables, namely participation in leadership roles, curriculum design, instructor competence, and senior/peer influence ranged from 0.76 to 0.83, indicating that the constructs satisfactorily met the standards of reliability analysis.

Table 1: Means, Standard Deviations, Correlations among Study Variables

Variables	Mean	SD	Y	X <sub>1</sub>	X <sub>2</sub>	X <sub>3</sub>
Participation in Leadership Roles (Y)	2.85	.70	(.76)			
Curriculum Design (X <sub>1</sub> )	3.31	.69	.45	(.80)		
Instructor Competence (X <sub>2</sub> )	3.22	.65	.30	0.60	(.83)	
Senior/Peer Influence (X <sub>3</sub> )	3.23	.70	.74	0.62	0.56	(.78)

Notes: N=273. Cronbach's alphas are in parentheses. \*p < .05, \*\*p < .01

Preliminary analyses were performed to ensure no violation of the assumptions of normality and linearity. The results shown in Table 1 also depicts the mean score, SD and correlation values among study variables. To meet the analysis for objective 1, the level of each construct was determined by categorizing the mean scores of each variable into three distinct categories of low ( $L < 2.33$ ), moderate ( $2.34 < M < 3.67$ ), and high ( $3.68 < H < 5.00$ ). Based on the data shown in Table 1, the mean scores of all four constructs were reported to be at the moderate level by the respondents. As for objective 2, the relationship between curriculum design (X<sub>1</sub>), instructor competence (X<sub>2</sub>), senior/peer influence

(X<sub>3</sub>), and participation in leadership roles (Y), was investigated using Pearson product-moment correlation coefficients. Overall, H1, H2 and H3, of this research are supported with each bivariate relationship varying in terms of strength and significance. The strongest linear relationship is found between senior/peer influence (X<sub>3</sub>) and participation in leadership roles (Y) ( $r = .739$ ,  $p = .01$ ). The positive correlation coefficient indicates that as the influence of the seniors and peers' increases, the participation in leadership roles too increases. This finding clearly supports the research hypothesis that there is a positive relationship between senior/peer influence and participation in leadership roles. Similarly, as hypothesized, a moderate association is also found between curriculum design and



participation in leadership roles ( $r = .447$ ,  $p = .01$ ). However, the relationship between instructor competence and participation in leadership roles, though significant, is comparatively weak compared to the other two predictor variables ( $r = .302$ ,  $p = .01$ ). The analysis for objective 3 was carried out using the multiple linear regression analysis. The R-squared value of 0.648 obtained implies that the three predictor variables explain about 64.8% of the variance in the participation in leadership roles (Y) and this variance is considered moderate. The F-statistics [ $F(3, 269) = 168.870$ ] is very large and the corresponding p-value is highly significant ( $p = 0.001$ ). This indicates that the slope of the estimated linear regression model line is not equal to zero confirming that the proposed three-predictor/factor multiple linear regression model of the study is highly significant. The Beta statistics shown in Table 2 reveals that the strongest contribution in enhancing participation in leadership roles of military cadets is the influence of seniors and peers.

Table 2: The Impact of Leader Development Climate on Participation in Leadership Roles

Participation in Leadership Roles (Y)	B (Unstandardized Coefficients)	Std. Error	Beta	t	p-value
Constant	-.214	.144		-1.48	.139
Curriculum Design ( $X_1$ )	.311	.051	.307	6.13	.000
Instructor Competence ( $X_2$ )	.174	.051	.162	3.41	.001
Senior/Peer Influence ( $X_3$ )	.456	.048	.460	9.56	.000

Notes:  $R = 0.805$ ,  $R^2 = 0.648$ ,  $Adj. R^2 = 0.644$ ;  $F(3, 269) = 168.870$ ,  $p = .0001$  Predictors: (Constant), Curriculum Design, Instructor Competence, Senior/Peer Influence

### Gender Participation in Leadership Roles

The independent samples t-test was used to determine if there was any significance difference in the level of participation in leadership roles between male and female military cadets as required by objective 4. It was assumed that the military environmental factors might have an impact on these two distinct groups in their propensity to take on leadership positions. The data obtained was analysed and is reported in Table 3 and 4.

Table 3: Group Statistics of Participation in Leadership Roles by Gender

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Participation in Leadership Roles	inMale	205	2.96	.707	.049
	Female	68	2.50	.563	.068

Table 4: Independent Samples T-Test for Participation in Leadership Roles

As shown in Table 3, the mean Participation in Leadership Roles score for male cadets is higher ( $M = 2.96$ ,  $SD = .707$ ) than the mean score for female cadets ( $M = 2.50$ ,  $SD = .563$ ). In Table 4, Levene's test for equality of variance revealed that the F statistic is significant ( $F = 6.490$ ,  $p = .011$ ), and therefore equal variance is not assumed. However, the t-value that was reported by this test is 5.433. This t-statistic obtained was rather high ( $t = 5.433$ ,  $t \geq 1.96$ ) and the corresponding p-value was much smaller than the alpha value of 0.05 ( $p = .001$ ,  $p < 0.05$ ). Thus, there is a significant difference in the mean participation in leadership roles scores for male and female cadets. Hence, this result suggests that Hypothesis 4 is supported i.e. there is a significant difference between male and female military cadets in their participation in leadership roles. This is consistent with the study conducted by Boldry, Wood and Kashy (2001), which found male military cadets showing greater motivation and desire for leadership roles, qualities necessary for military performance compared to female cadets. These findings also concur with Bobbio and Rattazzi's (2006) study on university students, which found that male students were more willing to step into leadership positions, than their female counterparts. The rationale for this could be found in Kennedy-Pipe's (2008) suggestion that in the military, most processes including leadership require masculine behavior and norms. As such, informal leadership roles were predominantly taken over by male soldiers.

### Conclusion and Implications

To summarize the findings, it is necessary to mention that the leader development climate was operationalized through three main constructs of curriculum design, instructor influence and senior/peer influence. Of the three dimensions, influence of seniors and peers had the greatest impact on creating a strong positive leader development climate, followed by design of curriculum for leader development activities. Instructors, reportedly have the least effect on encouraging cadets to participate in leadership roles. Indeed, a strong leader development climate plays an important role in influencing the desire for military cadets to participate in leadership roles. Lastly, the results also suggest that male military cadets took on leadership roles with greater preponderance than their female counterparts did.

These findings support the design components of the leadership development system propagated by Chan et al. (2005). The findings conclude that military cadets at the defense university largely participated in leadership roles out of social concerns and positive stress applied by seniors and peers as opposed to influence of instructors and the curriculum requirements. This is probably due to the heavy cost in time and effort endured by those who were appointed to leadership roles in the military training environment.

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