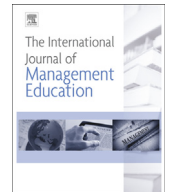


Contents lists available at [ScienceDirect](#)

The International Journal of Management Education

journal homepage: www.elsevier.com/locate/ijme

Research notes

Antecedents of team performance on case studies in a strategic management capstone course



Necmi Karagozoglu

California State University, Sacramento, United States

ARTICLE INFO

Article history:

Received 30 May 2016

Received in revised form 9 October 2016

Accepted 15 November 2016

Keywords:

Strategic management capstone course

Experiential learning

Case studies

Student teams

Team-based learning

Team performance

ABSTRACT

Acquisition of knowledge and skills through team-based case studies is a common pedagogic approach in the strategic management courses. This study explores why some student teams perform better in case study work than others. Several variables associated with team attributes and their effects on team performance were examined. Results showed that effects of the independent variables varied in relation to subjective SA (“self-assessed”) team performance and objective EA (“expert assessed”) team performance. Except for the grade/performance orientation, other independent variables, including team process effectiveness, analytic orientation, learning orientation, and advance preparation showed a positive relationship, and diversity showed a negative relationship with subjective SA performance. In contrast, only two independent variables, advance preparation, and diversity, were related to objective performance EA; the former had a positive relationship and the latter had a negative relationship.

© 2016 Elsevier Ltd. All rights reserved.

1. Introduction

Strategic management is a capstone course, which is typically required for all concentrations in the curriculum of colleges of business administration. Although class size patterns for the capstone course may vary across colleges of business, the present author's college sets a cap of 30 students per section. This course encompasses the common body of knowledge in strategic management and aims to integrate knowledge and skills pertaining to the functional areas such as marketing, finance, human resources, accountancy, and management information systems. The capstone course is quintessential for the college of business administration graduates because irrespective of the students' functional concentrations, strategic management and functional integration knowledge and skills are a necessity for managers to succeed in modern corporations. The quest for competitive advantage can be sourced anywhere in the value chain and requires new strategic initiatives advanced in any functional area to profitably set the company apart from competitors, and implementation of these initiatives usually involves the cooperation of multiple functional areas (e.g., Barney, 1995).

Textbooks on strategic management usually include conceptual material followed by case studies. In management education, there has been an increasing shift from instructor-centered/“spoon feeding” to student centered/experiential learning (Mundell & Pennarola, 1999). In the instructor-centric approach, educators may use case studies, but mainly to explain and highlight concepts in class discussions and assign teams of students, and develop a set of questions about the

E-mail address: nkaragozoglu@yahoo.com.

case study to be answered and presented in a written report. The student-centric approaches, in contrast, are mainly associated with methods that develop and use critical thinking skills and emphasize experiential learning. Drea, Singh, and Engelland (1997) emphasized that experiential learning would be an effective catalyst in developing an active student-centric learning environment. Experiential learning method and the team-based learning are instrumental for students to actively construct their own knowledge and skills (Kolb & Kolb, 2005; Davis, 1996; Lempert, 1996). Case studies in this approach are viewed as instrumental for students to confront open-ended, ill-structured, real-world issues surrounding a profit or not-for-profit organization. Instructors usually require students to work in teams to identify the main issues/problems and develop viable solutions, while they act as a facilitator/coach (Barrows & Tamblyn, 1980). Hernandez (2002) argued that team-based learning, which is instrumental for the team members to bear greater responsibility for their own learning, is associated with higher level thinking and learning in contrast with the traditional approach focused on recall and memorization.

Extant research has been for the most part silent on the pedagogic issues associated with a strategic management capstone course. Educators face challenges to facilitate effective ways for students to acquire critical thinking skills, ensure students learn not to avoid but to tolerate uncertainty and ambiguity in making strategic decisions, and optimize learning and performance in a team setting.

Given the central importance of team-based learning in a strategic management capstone course, this study explores the determinants of team performance on a case study work. Several propositions were developed to predict the effects of the various team attributes on both the subjective/SA (Self-Assessed) and objective/EA (Expert Assessed) performance measures. The propositions were tested and results were analyzed using regression analysis. Finally, the results and implications for the educators are discussed.

2. Conceptual framework and propositions

Professional schools such as business and engineering often place the capstone as the culminating experience in their respective degree programs. Capstone course is typically taken at the end of the students' program in their final semester before graduation. In management education, such courses often emphasize integrative problem-based learning as opposed to "content acquisition" based learning (Elam & Spotts, 2004; Peters & Yanagi, 2006) and are often labeled strategic management.

Capstone courses rely upon a constructivist approach (Springer & Borthick, 2004), which represents the center of gravity of experiential learning (Kolb & Kolb, 2005) in contrast to more traditional "spoon feeding" pedagogy. Springer and Borthick (2004) describe it as "constructing one's own understanding rather than inheriting a teacher's words" (p. 278)—Using constructivist approach-driven experiential learning, capstone courses prepare students to contrive better ways to act in response to ill-structured, "messy" problems (Cavaleri & Fearon, 2000).

The traditional "spoon feeding" approach bears little opportunity for students to develop critical thinking, creativity, and team workplace skills that are achieved by performing in teams (McDaniel & White, 1993; Raelin, 2009). There has been an increasing appeal to shift the pedagogic paradigm from the traditional "spoon feeding" model to the one that presupposes students as active learners, taking greater responsibility for their learning and puts students in the driver's seat and allows teams of students to teach each other (Bok, 1988; Davis, 1996; Sweet & Michaelsen, 2012). In the latter paradigm, the professor shifts his/her role to that of a facilitator/coach. However, in practice, "spoon feeding" style remains in various degrees manifest in colleges of business. Raelin (2009) has posited that a substantial shift away from "spoon feeding" in management education is unlikely due to deep-seated, long-standing consensual beliefs.

The constructivist approach works best when students possess critical thinking skills. The need for critical thinking in business education has been often noted in the literature (e.g., Braun, 2004; Ulrich, 2005). Smith (2003) has emphasized the difficulties of teaching critical thinking in business education. A particular model for teaching critical thinking is grounded in problem-based learning (PBL) (Savery & Duffy, 2001). PBL entails confrontation of cognitive conflict, which emanates from exposing students to ill-structured problems, as a stimulus for learning (Hmelo-Silver, 2004; Peterson, 2004).

Experiential learning calls for a shift from a grade/performance orientation (GO) to learning orientation (LO). Student characteristics best matched for learning orientation include self-discipline, independence, and openness to experience to carve a platform for intellectual curiosity and creativity (Calantone, Cavusgil, & Zhao, 2002; Tippin, Lafreniere, & Page, 2012). Although educators generally prefer students to exhibit LO (Ames, 1992; Laverie, Madhavaram, & McDonald, 2008), the traditional methods of teaching are usually antithetical to LO.

Anecdotal evidence suggests that team-based learning appears to be the widely accepted approach in the strategic management capstone course. Strategic management textbooks generally provide information regarding how to analyze case studies, and mention, specifically, about the importance of team-based learning in this connection (e.g., David & David, 2015). The important underlying incentive for professors to divide the capstone classes into teams is to enable students with different concentrations (e.g., marketing, finance, human resources, international business etc.) to integrate their specialized knowledge with other functional areas. A variety of experiential learning-centered assignments, beyond case studies; such as simulation projects generally transpire in student teams (Lamont, 2001). Teams allow making space for good conversation among the students, and as such, opportunities are likely created for reflection and meaning-making experiences that

improve experiential learning (Keeton, Sheckley, & Griggs, 2002). Team-based learning is associated with higher level thinking in contrast with the traditional approach which typically centers on recall and memorization-based learning (Hamilton & Klebba, 2011; Hernandez, 2002). The latter represents a lack of opportunity for students to develop critical thinking, creativity, and requisite skill for performing effectively in teams (McDaniel & White, 1993).

The objective vs. subjective performance distinction is important, as it concerns the dependent variable, due to the claims by past research regarding a disconnection between students and faculty in expectation, perception, and reasoning behind academic performance and evaluation (E.g., Tippin et al., 2012). In a study by Adams (2005), for example, students attributed 38% to effort and 62% to a performance where faculty allocated 17.2% and 82.8%, respectively. Greenberger, Lessard, Chen, and Farruggia (2008) have also pointed out the prevalence of the students' exaggerated perception of grade entitlement. Comprehensive work on case studies, which usually requires significant energy and effort, student bias to expect overly optimistic performance results, is a likely occurrence. Therefore, it is valuable to examine the impact of the antecedent factors on both the subjective and objective performance measures.

The independent variables that influence team performance, in the present study, include those that relate to the nature and style of relationships in the team (i.e., team process effectiveness), to experiential learning (i.e., critical thinking predisposition, learning versus grade/performance orientation), to heterogeneity/homogeneity of the team (i.e., diversity) and Grade Point Average as a control variable. The more elaborate rationale for including these variables and the propositions regarding their effect on team performance are discussed below.

2.1. Grade point average

Several authors have emphasized the importance of including grade point average (GPA) in studies associated with business education and the studies of education in general. Extant research has linked GPA to personality and motivation (Jaramillo & Spector, 2004), team learning (Hite, McIntyre, & Lynch, 2001), and individual learning (Karakaya, Ainscough, & Chopoorian, 2001).

The role of GPA as concerns team performance in case studies may not be straightforward. The case study based approaches, team-based learning, and experiential learning-centered pedagogies are not common to most courses offered in the business programs. Consequently, higher GPA earned in the courses that use a traditional method of teaching may not necessarily influence higher performance in the team-based, experiential learning-centered strategic management capstone course. However, because of the potentially confounding effects of the GPA, its effects will be controlled when testing the study propositions.

2.2. Team process effectiveness

Quality and frequency of interactions amongst the team members constitute important team process factors that affect performance (Cohen & Bailey, 1997; Mark, Mathieu, & Zaccaro, 2001). Teamwork orientation of the individual (Brickson, 2000; Eby & Dobbins, 1997), and other individual characteristics such as level of enthusiasm and motivation (Peterson, 2007) have been shown to influence team process and performance. Group cohesiveness refers to shared understanding or emotion in the group (Boyatzis, Stubbs, & Taylor, 2002; Cohen & Bailey, 1997), and it promotes higher interpersonal communication (Cartwright, 1968); hence, it culminates in higher student satisfaction and learning (Côté & Morgan, 2002; Dillon & Walsh, 1992). According to Carron and Spink (1995), a collaborative team process can increase motivation, completion rates, student satisfaction, and performance.

Proposition 1. *Team Process Effectiveness relates positively to the EA/objective and SA/subjective performance.*

2.3. Learning orientation (LO) versus grade/performance (GO) orientation

Extant research has explored two prevailing orientations in the educational setting. These entail a learning orientation (LO) and a grade/performance orientation (GO) (e.g., Eison, 1981; Payne, Youngcourt, & Beaubien, 2007). These orientations may be interpreted as alternative motivational goals in an achievement context. While LO focuses on developing skill and competence, GO centers on the gravity of performance in order to attain favorable judgments (Dweck, 1990; Harackiewicz & Elliot, 1993; VandeWalle, Cron, & Slocum, 2001). LO relates to knowledge acquisition, insightful understanding and mastery of the material whereas GO culminates in surface level learning approaches (Gibbs & Simpson, 2002; Race, 2005). However, LO and GO are not mutually exclusive; both may be represented in students to varying degrees (Eison, Milton, & Pollio, 1986). Meece and Holt (1993) have indicated that some students could have both high performance and high learning orientations, while other students might have both low performance and low learning orientations.

Learning orientation may occur when instilled deliberately by the educators and when students are intensely curious about the subject they study. Experiential learning is associated with the learner-centered approach to teaching in which the balance of power shifts towards the learner. Learning orientation (Kohli, Shervani, & Challagalla, 1998) is the worldview that

an individual carries to explore new facets of topics and techniques. Individuals with learning orientation demonstrate perseverance to learn and gain expertise over a long period of time about a topic. LO centered students are not concerned much with mistakes (Bouffard & Couture, 2003; Dweck & Leggett, 1988), but rather are interested in building skills and abilities for long-term performance (Kohli et al., 1998).

Extant research has emphasized that grade orientation is deeply embedded in student psyche. Kohn (1993), for example, argued that students are socialized into being grade oriented in middle and high school, and it evolves to become deeply embedded in college. GO centered students often find out who the easy graders are and which courses have minimal work before signing on for classes in college. They would seek to perform and accomplish those tasks for which there are quick rewards. They are more interested in building skills and abilities for short-term performance (Kohli et al., 1998). In this orientation, there is immediacy between effort and reward.

Although GO appears to influence performance in the short run, most students may be reluctant to admit their primary goal in their education is to get good grades. Also, the pervasiveness of the traditional teaching method, which entails delivering the material for students to regurgitate it in exams, is a detriment for LO to take effect. Consequently, LO may represent a student idea or wishful predisposition to education, but may not reflect the actual practice.

Based on the above considerations, the following propositions are offered:

Proposition 2a. *Learning orientation (LO) relates positively to SA/subjective performance. It will not relate to EA/objective performance.*

Proposition 2b. *Grade/Performance (GO) orientation relates positively to EA/objective performance. It will not relate to SA/subjective performance.*

2.4. Critical thinking disposition

Case studies involve extensive analytic work. The exercise of critical thinking enhances the quality of analysis and results. Recent views suggest that critical thinking involves cognitive skills dimension and an affective dispositions dimension. Prerequisites for critical thinking are the possession of such appropriate cognitive skills as analysis, evaluation (for truth seeking), interpretation and inference (in an open-minded and inquisitive manner), but also the positive disposition, proclivity and willingness to practice these skills. (Dewey, 1910; Facione, 1990; Facione, et. al., 1995, Lewin, 1935).

Assessment of the dispositional dimension of critical thinking has gained more importance than an assessment of the cognitive skills dimension (Isfikoglu, 2014). The rationale for this lies in the motivational theory of Kurt Lewin (1935) is that disposition to value and employ critical thinking creates a motivational drive to close the gap between what is valued and what is attained (Lewin, 1935).

Proposition 3. *Critical thinking disposition will relate positively to the student teams' SA/Subjective and EA/Objective performance.*

2.5. Advance preparation

Advance preparation by the team members to have a working knowledge of the case facts and a preliminary understanding of the case issues is an important prerequisite to ensure productive team meetings. Unprepared team members would potentially frustrate the prepared members and short-change their own contribution and hence compromise team positive team climate and productivity. The literature is silent on this topic except to emphasize the importance for the instructors to implement ways to hold all team members accountable for the entire project (Prince & Felder, 2006). Instructors often use peer assessment to this end and such measures have been shown to affect positive formative effects on student achievement and attitudes (Jhangiani, 2016; Topping, 1998).

Team members typically manifest different levels of advance preparation, and better-prepared students try to bring the laggards up to speed. Prepared students may resent their unprepared teammates, and that uneven knowledge of the case history and facts amongst the team members may influence the quality and frequency of communication between the team members. Consequently, team advantage and synergistic effects would be compromised. Higher levels of advance preparation by a higher proportion of team members may be a key antecedent for superior outcomes with respect to the EA/objective performance.

As a team makes collective strides, all members acknowledge the accomplishment regardless of their level of advance preparation. Less prepared students may not view their role being a detriment to the teams' overall performance if they make an effort to participate in team communication and engage in discussion and debate albeit following the lead of better-prepared students.

Proposition 4a. *Advance Preparation relates positively to EA/objective performance and SA/Subjective performance.*

Proposition 4b. *The positive relationship between advance preparation and EA/objective performance is substantively and statistically stronger than the relationship between advance preparation and SA/subjective performance.*

2.6. Diversity

Diversity is an important variable in research involving multicultural context. Much research has been devoted to studying diversity in a country, organization, and group settings. A number of these studies found diversity to be a positive factor, and others discovered negative effects. The importance of global competition makes diversity an important asset for companies (Jones & George, 2011; Thomas, 2012). In certain decision-making settings, diversity can also lead to synergistic outcomes (Covey, 1989). However, if it is not managed well, it can potentially lead to conflict and stress in the workplace (Daft, 2009). Moreover, diversity can also result in favoritism and unearned privileges for some individuals at a cost to others (Mujtaba & Sims, 2011).

Because of both the positive and negative effects of diversity identified and acknowledged by extant research and scarcity of studies on the effects of diversity on the performance of student teams, in particular, it will be explored via two alternative propositions as follows:

Proposition 5a. *Diversity relates positively to EA/objective and SA/subjective performance.*

Proposition 5b. *Diversity relates negatively to EA/objective and SA/subjective performance.*

3. Methodology

This is an empirical research study in which data were collected using a survey method, and the propositions were tested via inferential statistics. Data comes from a sample of 98 students enrolled in 3 sections of a capstone course at College of Business Administration, California State University- Sacramento. Although class size patterns for the capstone course may vary across colleges of business, the present author's college sets a cap of 35 students per section. A total number of students enrolled in this course across 12 sections was 357. Demographics of the sample represented 53.7% male, 46.5% female, and 48.9% of an ethnic minority.

In the third week of the semester, students formed their own teams. The selected teams have had no prior experience working together. Each team was assigned to work on a set of strategic planning matrices for the PepsiCo case offered in the textbook by David and David (2015) as a cohesion case. Students were assigned to work on the following matrices: IFEM (Internal Factor Evaluation Matrix), EFEM (External Factor Evaluation Matrix), SWOT (Strengths/Weaknesses/Opportunities/Threats Matrix), SPACE (Strategic Positioning and Action Evaluation Matrix), QSPM (Quantitative Strategic Planning Matrix). The deadline to complete the matrices was set three weeks from the date of assignment.

Strategic planning matrices are covered in most strategic management textbooks. Some include an extensive variety of matrices and others offer fewer varieties. David and David (2015) classifies various matrices into input, matching and decision matrices. There are advantages to using matrices over less structured and mostly qualitative analysis in strategic planning. These advantages pertain to ensuring that no important factor is overlooked, prioritizing factors, facilitating critical thinking, and increasing credibility and persuasiveness of planning outcomes.

Three strategic management faculties (including the present author) served as judges to evaluate the work published in the instructor manual by David and David (2015) vis-a-vis the assigned matrices in order to determine the "objective" results. Upon completion of the student teams' work on the matrices, the present author evaluated the performance of the teams. The teams were rank ordered based on the extent of deviation of their results from the "objective" results. This evaluation was presented to the students, and subsequently, the questionnaire for the study was administered. The questionnaire was developed drawing from extant research and is included at the end of this article.

The dependent variable is the team performance on the strategic planning matrices. It was measured both in subjective and objective terms. The objective performance was measured based on the deviation of the team's results from the expert results (i.e., the expert evaluated solution from the David and David instructor manual) for each matrix and by summing the deviations from all matrices. The performance was also measured by a subjective self-assessment via the performance assessment scale.

Independent variables were measured using 5-point Likert-type scales. Students were asked to self-report their GPA's. Cassidy (2001) found that self-reports of GPA and GPAs reported from the registrar highly correlated (0.97). The constructs of learning orientation and performance orientation were measured using multi-item scales adapted from Ames and Archer (1988). Team process effectiveness scale was based on the work by Lurie, Schultz, and Lamanna (2011). Critical thinking disposition was measured through items that focused on Open-Mindedness, Analyticity, and inquisitiveness dimensions emphasized in the California Critical Thinking Disposition Inventory (CCTDI) which is a widely used instrument to measure this variable (Isfikoglu, 2014). The advance preparation was measured through indirect measures of whether

Table 1

Means, standard deviations and correlations.

Variable	Mean	Standard deviation	1	2	3	4	5	6	7	8
1. GPA	3.23	0.37								
2. Team process effectiveness	3.81	0.67	0.028							
3. Learning orientation	3.59	0.72	-0.081	0.716**						
4. Performance/Grade orientation	3.06	0.76	-0.020	0.175	0.299**					
5. Advance preparation	3.74	0.70	-0.124	0.640**	0.601**	0.249*				
6. Critical thinking predisposition	3.17	0.64	0.050	0.676**	0.634**	0.185	0.467**			
7. Diversity	0.59	0.20	0.258*	0.105	0.080	-0.072	0.028	0.227*		
8. Subjective, "Self-assessed" performance	4.01	0.70	0.032	0.690**	0.517**	0.103	0.627**	0.554**	-0.043	
9. Objective, "Expert assessed" performance	7.17	1.78	0.100	0.109	0.145	0.145	0.207*	0.031	-0.260*	0.316**

*P < 0.05; **P < 0.01.

Table 2

Results of regression analysis for predicting subjective performance (self-assessed).

Variable	Beta
Proposition 1	
GPA	0.013
Team process effectiveness	0.690***
Proposition 2	
GPA	0.004
Analytic orientation	0.554***
Proposition 3	
GPA	0.075
Learning orientation	0.525***
Proposition 4	
GPA	0.034
Grade/Performance orientation	0.104
Proposition 5	
GPA	0.112
Preparation	0.644***
Proposition 6	
GPA	0.047
Diversity	-0.506***

*P < 0.05; **P < 0.01; ***P < 0.001.

Table 3

Results of regression analysis for objective performance (expert assessed).

Variable	Beta
Proposition 7	
GPA	0.097
Team process effectiveness	0.099
Proposition 8	
GPA	0.099
Analytic orientation	0.018
Proposition 9	
GPA	0.111
Learning orientation	0.145
Proposition 10	
GPA	0.103
Grade/Performance orientation	0.150
Proposition 11	
GPA	0.126
Preparation	0.213*
Proposition 12	
GPA	0.181
Diversity	-0.317**

*P < 0.05; **P < 0.01; ***P < 0.001.

the team had mostly used fact-based analysis versus intuition and guesswork, and direct measures that assessed the extent of advance preparation exhibited by the team members. The data on diversity was collected based on the students' self-report on their ethnic background and it was operationalized using the diversity calculator (<http://www.cs.cmu.edu/~trb/java/Dcalc/>).

4. Results and discussion

Table 1 shows the means, standard deviations, and correlations. Although only advance preparation and diversity were related to objective, “self-assessed” performance, all of the study variables except for the performance/grade orientation and diversity significantly correlated with subjective performance. Critical thinking predisposition, highly touted factor in case studies, significantly correlated with team process effectiveness, learning orientation, advance preparation, diversity, and subjective “self-assessed” performance.

Results of regression analysis predicting the Subjective/“Self-Assessed” Performance and Objective/“Expert Assessed” Performance are exhibited via Tables 2 and 3 respectively.

Proposition 1, which predicted a positive relationship between the team process effectiveness and objective performance was not supported (Beta = 0.01, NS) but the team process effectiveness related positively to the subjective performance (Beta = 0.69, $p < 0.001$). This result implies that when the students perceive their team process as effective, they link this perception automatically to positive performance outcomes. The non-significant effect of team process effectiveness on objective performance may imply that cohesive teams with frequent and good communication among the members do not necessarily translate into quality performance outcomes.

Proposition 2a was supported in that learning orientation did not relate to objective performance (Beta = 0.15, $P=NS$), but related positively to subjective performance (Beta = 0.53, $P = 0.001$). Proposition 2b was partially supported: contrary to the prediction, grade/performance orientation did not relate to objective performance (Beta = 0.15, NS), but as predicted, it also did not relate to subjective performance (Beta = 0.10, NS). This implies the irrelevance of grade/performance orientation that is deeply embedded in the traditional method of teaching to the experiential learning-centered case method of teaching.

Proposition 3 was partially supported. Although, critical thinking predisposition was highly significantly related to subjective performance (Beta = 0.55, $p < 0.001$), it did not relate to objective performance (Beta = 0.02, NS). Surprisingly, critical thinking predisposition being an essential case study skill did not seem to affect objective performance. It is plausible that because team members typically demonstrate varying degrees of competence in analytical skills, only a few team members with good analytical skills may determine the quality of performance outcomes and others simply follow their lead and mostly “free ride”. That is, even if the team does not collectively reflect high analytical skills, the performance outcomes may still look good because of the contribution of some of the skilled members.

Proposition 4a was supported: the team members' advance preparation related positively to both the subjective SA (Beta = 0.21, $p < 0.05$) and objective EA performance (Beta = 0.64, $p < 0.001$). Proposition 4b was also supported in that the latter relationship was stronger than the former.

Out of the two alternative propositions stated regarding the role of diversity, alternative 5a was not supported, but alternative 5b was fully supported. That is, diversity was negatively related to both the subjective (Beta = -0.50 , $p < 0.001$) and objective (Beta = -0.32 , $p < 0.01$) performance measures.

This study suffers from limitations common to studies that use survey method to gather perceptual data. In addition, the external validity of the results should be interpreted with caution as the culture of the student body, Student Admission Test (SAT) scores, and reputation of the college may influence the results. For example, the same study conducted at Stanford University may not reveal consistent results. Also, cross-sectional aspect of the study poses further limitation in that if another time-frame had been chosen differing results may manifest.

Notwithstanding its limitations, this study revealed important findings and potentially useful implications for the educators. The results, consistent with past studies, have shown that students tend to overstate their performance. They also seem to link their positive perception regarding various team attributes such as those related to team process and analytic orientation to good subjective (“self-assessed”) performance. In contrast, the latter attributes did not appear to relate to objective (“expert-assessed”) performance.

GPA does not seem to influence the teamwork on case studies in a capstone course, probably due to the prevalence of the traditional, “spoon feeding” style of teaching in the prerequisite courses. Even though grade/performance orientation is deeply embedded in the student psyche, students do not seem to view it as the motivational driver for their performance. Results showed no association between the grade/performance orientation and subjective and objective performance. The students seem to attribute greater importance to learning orientation as motivational driver for their case study performance.

The finding that grade/performance orientation has no bearing on the team performance is noteworthy. Previous studies showed that grade/performance orientation is related, in particular, to short-term performance (Jha & Bhattacharyya, 2013).

It is plausible that grade/performance orientation does not affect case study performance because it involves a longer-term process as opposed to short-term course requirements such as exams.

Two variables that are significantly related to both the subjective and objective performance were the team members' advance preparation on the assigned case studies and diversity. As concerns objective performance, the results show that student effort in terms of preparing for the assigned case study in advance of the team meetings trumps the effects of all other independent variables, with the exception of diversity. It seems advance preparation is a key factor in successful team performance. This finding implies that in the absence of adequate advance preparation, various other attributes, such as team process effectiveness, analytic orientation, and grade/performance orientation do not facilitate good objective (expert assessed) performance as standalone factors. The results suggest overall that the quality of a team's objective (expert assessed) case study performance ultimately hinges on more ethnically homogenous student teams whose members take the time to adequately prepare for the assigned case study in advance of the team meetings. In this connection, an important caveat for the perils of grade inflation may be issued. Student awareness of grade inflation in the program may hinder the level of student motivation and effort to ensure advance preparation, and, thus, may lead to substandard team performance on case studies. Consequently, the instructors in a grade inflation environment may continue to inflate grades and lower the performance standards in grading case studies.

The finding of a highly significant negative relationship between the ethnic diversity and both the subjective and objective performance has important implications for the team processes, particularly in multicultural universities. This result implies diversity may potentially compromise team cohesion. Teams embody shared understanding or emotion that is reflected through group cohesiveness (Cohen & Bailey, 1997). Group cohesiveness describes members' affinity for each other and their desire to remain part of the team. Cohesive teams experience more interpersonal communication (Cartwright, 1968) and consequently higher potential for learning. Successful strategies for increasing student satisfaction and perceptions of learning include those that allow for maximum interactions among and between students (Dillon & Walsh, 1992).

Therefore, in multicultural settings, it might be useful to allow ample opportunities for students to socialize and get to know each other before they pick their teammates. Perhaps, an effective approach may entail a two-phase team formation. Initially, students can form a tentative team to do a minor project with and, subsequently, they may be given an option to change teams or form a new team for the major case study assignment.

It is plausible that the effect of diversity may be a function of the type of task performed by a team. In case studies that require highly analytic work, extensive communication and debates amongst the team members, greater trust, and familiarity afforded by homogeneity may be more conducive to the quality of performance outcomes. In other task contexts that require innovative thinking and a rich array of perspectives, diversity may be a catalyst for superior results.

5. Conclusion

Ultimately, teaching a capstone course to business students is a challenging endeavor. This course integrates functional area knowledge and teaches strategy formulation and implementation. Typical pedagogic approach is to divide students into teams and assign them comprehensive, multi-functional case studies that usually reflect unstructured problems. Student cohorts who complete the prerequisite courses and advance to take the capstone course do not necessarily have uniform levels of sufficient competence in team-based approaches, case study method, and experiential learning. Instructors of a strategic management capstone course would benefit from a research-based, reliable guidance as to what approaches work best to achieve desired student learning outcomes. The present study has attempted to fill some of this void by exploring determinants of a student team's success in the strategic management course. There is a need for future studies to explore other pedagogic aspects in this research stream.

Although, advance preparation by students in a case method of instruction is a common sense requirement for good performance, the results showed its overarching importance relative to other variables that influence performance. Therefore, it is crucially important to motivate students to thoroughly prepare in advance of a class discussion or teamwork on the assigned cases. It might be useful also to quiz students on the assigned cases to ensure adequacy of their advance preparation. It is important to realize that students who perform well in the "spoon feeding" type courses are not prepared to do equally well in the experiential learning context. It is, therefore, indispensable to provide a thorough explanation to the students how the two approaches differ and how the students can succeed in the latter method. Due to the students' tendency to substantially overstate their performance as shown by the results, it is important to provide frequent feedback on their progress in successive steps of their case study work. The unexpected finding about the negative effect of diversity on team performance has a noteworthy implication: In multicultural settings, in particular, it may be rather useful to create ample opportunities for the entire class of students to sufficiently socialize with each other (to avoid teams based solely on proximity), and possibly work together on smaller projects, to ensure students form cohesive teams for their main case study assignment. It may also be beneficial to provide continuous training and coaching to the teams toward achieving superior performance.

Questionnaire

Course section # _____

Your GPA _____

Your gender _____

Your ethnicity _____

Your concentration _____

ABOUT YOUR TEAM:

- Your team number:
- How many members: Female _____; Male _____

INSTRUCTION:

Please indicate, by circling the appropriate number in the scales, your degree of agreement with each of the below statements:

CRITICAL THINKING DISPOSITION*This team was excited about new ways to think*

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

This team seems to prefer complex to simple problems

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

This team seems to find satisfaction in deliberating hard and for long hours

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

This team seems to question things rather accept them as they are

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

TEAM PROCESS EFFECTIVENESS*This team encourages all members to share ideas*

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

All members make a concerted effort to contribute to teamwork

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

This team creates an environment where things can be accomplished.

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

Members of this team were consistently well prepared to do a quality job on the assigned matrices

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

There was a frequent and good communication throughout the team about the assigned project

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

Team members had adequate knowledge to do a good job on the matrices

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

Most of the people in this team seemed to enjoy the task at hand.

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

This team managed time well and met the project deadline comfortably

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

Members of this team regularly took time to reflect on how they do things

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

LEARNING ORIENTATION

Members of this team are motivated to learn about strategic management.

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

Members of this team are motivated to learn from the team exercise on strategic planning matrices.

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

Members of this team are motivated to continually improving their skills.

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

Learning how to be a better strategic manager is of fundamental importance to this team.

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

Members of this team are enthusiastic about acquiring knowledge and skills in strategic management

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

Members of this team find learning about complicated concepts satisfying and regard making mistakes is just part of the learning process.

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

Members of this team are intrinsically motivated to constantly expand their knowledge.

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

GRADE/PERFORMANCE ORIENTATION

It seems important for the members of this team to be considered by their fellow team members as good students

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

Members of the team seem to try outperforming one another in displaying requisite knowledge and competence for the project.

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

Members of this team appear to seek rewards in short term for their efforts.

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

Members of this team prefer to see the tangible output as a reward for their effort.

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

ADVANCE PREPARATION

This team has collectively made an effort to use mostly fact-based (as opposed to intuition based) evaluation to determine the numerical values (ratings) to construct the assigned matrices.

Disagree **Strongly Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

Members of this team collectively displayed adequate preparation and knowledge about the PepsiCo case for which strategic planning matrices were constructed?

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

Members of This team demonstrated comparable levels of advance preparation to do well on the assignment

Disagree Strongly **Disagree** **Agree** **Strongly Agree** **Very Strongly Agree**
 1 2 3 4 5

PERFORMANCE ASSESSMENT

How would you rate the quality of your team's overall performance on the assigned matrices?

Poor Quality **Low Quality** **Average Quality** **Good Quality** **Excellent Quality**
 1 2 3 4 5

Relative to the performance of other teams, how would you rate the relative quality of the work done by your team on the assigned matrices?

Poor Quality **Low Quality** **Average Quality** **Good Quality** **Excellent Quality**
 1 2 3 4 5

References

- Adams, J. B. (2005). What makes the grade? Faculty and student perceptions. *Teaching of Psychology*, *32*(1), 21–24.
- Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology*, *84*(3), 261–271.
- Ames, C., & Archer, J. (1988). Achievement goals in the classroom: Students' learning strategies and motivation processes. *Journal of Educational Psychology*, *80*(3), 260–267.
- Barney, J. B. (1995). Looking inside for competitive advantage. *Academy of Management Executive*, *9*(4), 49–61.
- Barrows, H. S., & Tamblyn, R. (1980). *Problem-based learning: An approach to medical education*. New York: Springer.
- Bok, D. C. (1988). *Higher learning*. Cambridge, MA: Harvard University Press.
- Bouffard, T., & Couture, N. (2003). Motivational profile and academic achievement among students enrolled in different schooling tracks. *Educational Studies*, *29*(1).
- Boyatzis, R. E., Stubbs, E. C., & Taylor, S. N. (2002). Learning cognitive and emotional intelligence competencies through graduate management education. *Academy of Management Learning and Education*, *1*(2), 150–162.
- Braun, N. (2004). Critical thinking in the business curriculum. *Journal of Education for Business*, *79*(4), 232–236.
- Brickson, S. (2000). The impact of identity orientation on individual and organizational outcomes in demographically diverse settings. *Academy of Management Review*, *25*(1), 82–101.
- Calantone, R. J., Cavusgil, S. T., & Zhao, Y. (2002). Learning orientation, firm innovation capability, and firm performance. *Industrial Marketing Management*, *31*(6).
- Carron, A., & Spink, K. S. (1995). The group size-cohesion relationship in minimal groups. *Small Group Research*, *26*(1), 86–105.
- Cartwright, D. (1968). The nature of group cohesiveness. In D. Cartwright, & A. Zander (Eds.), *Group dynamics: Research and theory* (3rd ed., pp. 91–109). New York: Harper & Row.
- Cassady, J. C. (2001). Self-reported GPA and SAT: A methodological note. *Practical Assessment, Research & Evaluation*, *7*(12).
- Cavaleri, S., & Fearon, D. (2000). Integrating organizational learning and business praxis: A case for intelligent project management. *Learning Organization*, *7*(5), 251–258.
- Cohen, S. G., & Bailey, D. E. (1997). What makes teams work: Group effectiveness research from the shop floor to the executive suite. *Journal of Management*, *23*(3), 239–290.
- Côté, S., & Morgan, L. M. (2002). A longitudinal analysis of the association between emotion regulation, job satisfaction, and intentions to quit. *Journal of Organizational Behavior*, *23*(8), 947–962.
- Covey, S. R. (1989). *The seven habits of highly effective people: Restoring the character ethic*. New York: Simon & Schuster.
- Daft, R. L. (2009). *Management* (9th ed.). Mason, OH: Thomson Learning.
- David, F. R., & David, F. R. (2015). *Strategy management: A competitive advantage approach, concepts and cases* (15th ed.). Prentice Hall.
- Davis, M. H. (1996). *Empathy: A social psychological approach*. Westview Press.
- Dewey, J. (1910). *How we think*. Boston, MA: D. C. Heath.

- Dillon, C. L., & Walsh, S. M. (1992). Faculty: The neglected resource in distance education. *American Journal of Distance Education*, 6(3), 5–21.
- Drea, J. T., Singh, M., & Engelland, B. T. (1997). Using experiential learning in principles of marketing course: An empirical analysis of student marketing audits. *Marketing Education Review*, 7(2), 53–59.
- Dweck, C. (1990). Self-theories and goals: Their role in motivation, personality, and development. In R. Dienstbier (Ed.), *Perspective on motivation: Nebraska symposium on motivation* (Vol. 58, pp. 199–235).
- Dweck, C., & Leggett, E. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, 95(2), 256–273.
- Eby, L. T., & Dobbins, G. H. (1997). Collectivistic orientation in teams: An individual and group level analysis. *Journal of Organizational Behavior*, 18(3), 275–295.
- Eison, J. A. (1981). A new instrument for assessing students' orientations towards grades and learning. *Psychological Reports*, 48(2), 919–924.
- Eison, J. A., Milton, O., & Pollio, H. R. (1986). *Making sense of college grades*. San Francisco, CA: Jossey-Bass.
- Elam, E. R., & Spotts, H. (2004). Achieving marketing curriculum integration: A live case study approach. *Journal of Marketing Education*, 26(1), 50–65.
- Facione, P. A. (1990). *Critical thinking: A statement of expert consensus for purposes of educational assessment and instruction*. Millbrae, CA: California Academic Press.
- Facione, P. A., Giancarlo, C. A., & Facione, N. C. (1995). The disposition toward critical thinking. *Journal of General Education*, 44(1), 1–25.
- Gibbs, G., & Simpson, G. (2002). *Evaluation of regional retention activity: Interim report*. Open University, Student Support Research Group Report 40/2002.
- Greenberger, E., Lessard, J., Chen, C., & Farruggia, S. P. (2008). Self-entitled college students: Contributions of personality, parenting, and motivational factors. *Journal of Youth and Adolescence*, 37(10), 1193–1204.
- Hamilton, J. G., & Klebba, J. M. (2011). Experiential learning: A course design process for critical thinking. *American Journal of Business Education*, 4(12), 1–11.
- Harackiewicz, J. M., & Elliot, A. J. (1993). Achievement goals and intrinsic motivation. *Journal of Personality and Social Psychology*, 65(4), 904–915.
- Hernandez, S. A. (2002). Team learning in a marketing principles course: Cooperative structures that facilitate active learning and higher level thinking. *Journal of Marketing Education*, 24, 73–85.
- Hite, R. E., McIntyre, F. S., & Lynch, D. F. (2001). The impact of student characteristics on cooperative testing in the marketing classroom. *Marketing Education Review*, 11(1), 27–34.
- Hmelo-Silver, C. E. (2004). Problem based learning: What and how do students learn? *Educational Psychology Review*, 16(3), 235–266.
- Isfiroglu, G. (2014). Cross-cultural equivalency of the California critical thinking disposition inventory. *Educational Sciences: Theory & Practice*, 14(1), 159–178.
- Jaramillo, F., & Spector, P. E. (2004). The effect of action orientation on the academic performance of undergraduate marketing majors. *Journal of Marketing Education*, 26(3), 250–260.
- Jha, R., & Bhattacharyya, S. (2013). Learning orientation and performance orientation: Scale development and its relationship with performance. *Global Business Review*, 14(1), 43–54.
- Jhangiani, R. S. (2016). The impact of participating in a peer assessment activity on subsequent academic performance. *Teaching of Psychology*, 43(3), 180–186.
- Jones, G. R., & George, J. M. (2011). *Essentials of contemporary management*. Boston, MA: McGraw-Hill/Irwin.
- Karakaya, F., Ainscough, T. L., & Chopoorian, J. (2001). The effects of class size and learning style on student performance in a multimedia based marketing course. *Journal of Marketing Education*, 23(2), 84–90.
- Keeton, M. T., Sheckley, B. G., & Griggs, J. K. (2002). *Efficiency and effectiveness in higher education*. Dubuque, IA: Kendall/Hunt Publishing Company.
- Kohli, A. K., Shervani, T. A., & Challagalla, G. N. (1998). Learning and performance orientation of salespeople: The role of supervisors. *Journal of Marketing Research*, 35(2), 263–274.
- Kohn, A. (1993). *Turning learning into a business: Concerns about "quality management" at school*.
- Kolb, A. Y., & Kolb, D. A. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning & Education*, 4(2), 193–212.
- Lamont, L. M. (2001). Enhancing student and team learning with interactive marketing simulations. *Marketing Education Review*, 11(1), 45–55.
- Laverie, D. A., Madhavaram, S., & McDonald, R. E. (2008). Developing a learning orientation: The role of team-based active learning. *Marketing Education Review*, 18(3), 37–51.
- Lempert, D. H. (1996). *Escape from the ivory tower: Student adventures in democratic experiential education*. San Francisco, CA: Jossey-Bass, Inc.
- Lewin, K. (1935). *A dynamic theory of personality: Selected papers*. New York: McGraw-Hill.
- Lurie, J. S., Schultz, S. H., & Lamanna, G. (2011). Assessing teamwork: A reliable five-question survey. *Family Medicine*, 43(10), 731–734.
- Mark, M. A., Mathieu, J. E., & Zaccaro, S. J. (2001). A temporally based framework and taxonomy of team processes. *Academy of Management Learning and Education*, 26(3), 356–376.
- McDaniel, S. W., & White, J. C. (1993). The quality of the academic preparation of undergraduate marketing majors: An assessment by company recruiters. *Marketing Education Review*, 3(Fall), 9–16.
- Meece, J. L., & Holt, K. (1993). A pattern analysis of students' achievement goals. *Journal of Educational Psychology*, 85(4), 582–590.
- Mujtaba, B. G., & Sims, R. L. (2011). Gender differences in managerial attitudes towards unearned privilege and favoritism in the retail sector. *Employee Responsibilities and Rights Journal*, 23(3), 205–217.
- Mundell, B., & Pennarola, F. (1999). Shifting paradigms in management education: What happens when we take groups seriously? *Journal of Management Education*, 23(6), 663–683.
- Payne, S. C., Youngcourt, S. S., & Beaubien, J. M. (2007). A meta-analytic examination of the goal orientation nomological net. *Journal of Applied Psychology*, 92(1), 128–150.
- Peterson, T. O. (2004). So you're thinking of thinking problem-based learning?: Three critical success factors for implementation. *Journal of Management Education*, 28(5), 630–647.
- Peterson, T. M. (2007). Motivation: How to increase project team performance. *Project Management Journal*, 60–69.
- Peters, T. D., & Yanagi, J. S. (2006). A strategic management learning laboratory: Integrating the college classroom and the college human resource management environment. *Organization Management Journal, Teaching & Learning*, 3(1), 34–53.
- Prince, M. J., & Felder, R. M. (2006). Inductive teaching and learning methods: Definitions, comparisons, and research bases. *Journal of Engineering Education*, 95(2), 123–138.
- Race, P. (2005). *Making learning happen: A guide for post-compulsory education*. SAGE Publications Ltd.
- Raelin, J. (2009). The practice turn-away: Forty years of spoon-feeding in management education. *Management Learning*, 40(4), 401–410.
- Savery, J. R., & Duffy, T. M. (2001). *Problem based learning: An instructional model and its constructivist framework*. Bloomington, IN: Center for Research on Learning and Technology. Retrieved from: <http://crlt.indiana.edu/publications/journals/TR16-01.pdf>.
- Smith, G. F. (2003). Beyond critical thinking and decision making: Teaching business students how to think. *Journal of Management Education*, 27(1), 24–51.
- Springer, C. W., & Borthick, A. F. (2004). Business simulation to stage critical thinking in introductory accounting: Rationale, design, and implementation. *Issues in Accounting Education*, 19(3), 277–303.
- Sweet, M., & Michaelson, L. K. (2012). *Team-based learning in the social sciences and humanities: Group work that works to generate critical thinking and engagement*. Sterling, VA: Stylus Pub.
- Thomas, R. R. (2012). Organizational diversity: A missed opportunity. *Employee Relations Today*, 38, 1–8.
- Tippin, G. K., Lafreniere, K., & Page, S. (2012). Student perception of academic grading: Personality, academic orientation, and effort. *Active Learning in Higher Education*, 13(1), 51–61.
- Topping, K. (1998). Peer assessment between students in colleges and universities. *Review of Educational Research*, 68(3), 249–276.
- Ulrich, T. A. (2005). The relationship of business major to pedagogical strategies. *Journal of Education for Business*, 80(5), 269–274.
- VandeWalle, D., Cron, W. L., & Slocum, J. W. (2001). The role of goal orientation following performance feedback. *Journal of Applied Psychology*, 86(4), 629–640.