

Everyone's Smart University

Project (Spring 2021)

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Section	Date	Course Code
Master	Thursday 18 / 03 / 2021.	(PMG511)

PROJECT LEADERSHIP

Instructions:

- ☐ آخر موعد للتسليم هو يوم الخميس 20-05-2021 في تمام الساعة ٩ مساءً.
- ☐ الإجابة متاحة باللغة الإنجليزية أو اللغة العربية مع مراعاة أن تكون المصطلحات العلمية باللغة الانجليزية.
- ☐ يتم تسليم المشروع في صيغة ملف pdf مع الالتزام بنموذج الجامعة ولن تقبل أي مستندات أخرى.
- ☐ يجب مراعاة أقسام البحث الرئيسية (مقدمة Introduction، دراسات علمية سابقة Literature Review، طريقة البحث Methodology، النتائج والمناقشة Results and Discussion، وأخيراً المراجع References. وان كان هناك ملحقات Appendices يتم إضافتها)
- ☐ يجب الالتزام بـ Theme موحد كما يلي:
 - حجم الخط 12.
 - نوع الخط Arial.
 - لون الخط أسود.
 - المسافة بين الأسطر 1.5 line spacing.
 - عدد صفحات البحث (لا تقل عن ثلاث صفحات ولا تزيد عن ستة صفحات).

Instructor's Name: **Dr. Sara Adel**

THE IMPACT OF LEADERSHIP SKILLS ON PROJECT SUCCESS IN **YOUR ORGANIZATION**: A CASE OF YOUR OWN.

Different leadership styles are the key factor in the success of any project. Project Leaders are responsible and accountable for the success/failure of the project. There are numerous responsibilities that are assigned to a Project Leader during the leadership journey.

YOUR MISSION:

Your research/project must provide an overview of information and knowledge in a corporate environment with an underlying theme of **defining leadership styles within applying the hard and soft skills** for that style needed by the leader to ensure successful project delivery in your organization. (You are required to demonstrate your understanding of the relevant body of works to real-life business research).

Choose one only of the following project leadership skills using the tools that we learned during the project leadership course; starting from identifying and assess the case till executing the project.

- Prioritization (Using tools for Estimation – Scheduling – Tracking – prioritizing stakeholders).
- Team management (Using Team structures – Team development stages – Team needs).
- Embracing Accountability (Using RASCI)
- Conflict resolution (Using the Thomas-Kilmann conflict mode instrument).
- Motivation (Using one theory of motivation – Types of motivators).
- Communication in the project.
- Influencing (Using different sources of LEADER POWER).

What you have to do:

Your project task requires the preparation of a full project proposal that should contain the following components:

- **Introduction:** A detailed statement of the problem, research aim, and objectives that you would like to investigate and discuss. **(2 points)**

- **Literature Review and Conceptual framework:** An analysis of the literature relevant to the research topic that will give you the conceptual basis for conducting your research from the previous studies. **(2 points)**
- **Methodology:** Based on the conceptual framework, research aim(s), and objectives, you need to provide a detailed description of the data collection tools, data sources. **(2 points)**
- **Results and Discussion:** Description about the main findings of a research, outline your thoughts to defend your research and to emphasize the significance of it. **(4 points)**
- **References:** Lists all the resources you've used in your project, and your refereed journal articles as well. **(2 points)**
- **Appendices (If it is available in your study):** Any supplementary material you need to add. (Optional)

[Write the names of the chapters/sections of your research/ project and briefly discuss what you will write in those chapters/sections] .

Best of luck...

Dr. Sara Adel

The Impact of leadership skills in project success (Team management (Using Team structures – Team development stages – Team needs)

Introduction

This research presents the first phase of a broader research program and its aim is to measure the impact of team design and leadership distribution on team effectiveness in student teams. The research gathered a project-based learning program implemented for first-year undergraduate students in a Belgian Engineering Faculty. A total sample of 174 students, organized within 29 groups provided a set of collectively and individually written reports and personal confidential statements on team progress. The research did content analysis and a sociometric test to identify group interactions and leadership configurations. The results reveal four main leadership and group structures, each of them being positively correlated to specific perceived work outcomes and I find it very close to the work environment that I am working in so I could easily reflect upon.

Literature Review

The decisions regarding team design are critical for team functioning and effectiveness (Erez, Lepine & Elms, 2002; Mohrman, Cohen & Mohrman, 1995). Several researchers have demonstrated that variations in team performance can be explained by differences in team structure (Cohen & Bailey, 1997; Williams, Parker & Turner, 2010). Team structure consists of “team relationships that determine the allocation of tasks, responsibilities, and authority” (Stewart & Barrick, 2000: 135). Among the factors that correlate best with team effectiveness, Campion, Medsker and Higgs (1993) highlight the role of team interdependence and team autonomy. Team interdependence applies to tasks, goals, feedback and rewards (Campion, Papper, & Medsker, 1996) and occurs when members interact cooperatively, with interdependence increasing group communication, flexibility and cohesiveness (Guzzo & Shea, 1992; Hackman, 1992; Murnighan & Conlon, 1991). Team self-leadership may raise team communication and flexibility, as well as team commitment (Manz & Stewart, 1997). In other words, the

concentration of authority and the structuring of activities are the most important features of team structure as regards team effectiveness (Pugh & Hickson, 1997). Team interdependence and self-leadership were found to correspond with higher group effectiveness, mainly for teams engaged in conceptual tasks (Stewart & Barrick, *ibid.*). Team effectiveness is assessed according to three main criteria: productive team outputs, the teams' internal social processes, and overall group satisfaction (Hackman, 1987: 13). The group design, the organizational context and the group synergy impact team effectiveness through their influence on these moderating variables. Particularly, team design influences group effort when the task is motivationally engaging (*ibid.*: 15-16); it influences knowledge and skills mobilization when members have high-relevant expertise, are numerous enough to do the work, have task and interpersonal competences and are moderately heterogeneous (*ibid.*: 18-19); lastly, team design influences the choice of appropriate performance strategies when group norms support self-regulation, situation scanning and strategy planning (*ibid.*: 20-21). In professional environments, team effectiveness is influenced by organizational context, group structure, and group processes (Schwarz, 1994; Sundstrom, De Meuse, & Futrell, 1990), whereas, according to Werner & Lester (2001), team structure and team spirit are significantly correlated with team satisfaction and team grade in students work groups (with workload sharing only related to team satisfaction). Hackman (*ibid.*) identifies group effort, knowledge and skills, and performance strategies as the key moderating factors of team effectiveness. Interactions among team members are measured at the task and relational levels (Bales, 1950; McGarth, 1984; Hackman, 1987). There are four task categories "generating ideas and plans, choosing between alternatives, negotiating conflicts of interest and executing work" (Stewart & Barrick, *ibid.*: 137). From a relational standpoint, team members' relations include interpersonal transactions in terms of "who is talking with whom (or not doing so), who is fighting with whom, who is pairing with whom" (Hackman, *ibid.*: 321).

Research design and methodology

A Problem-Based Learning Project was implemented at Ecole Polytechnique de Louvain in September 2000 for first and second year students. On the first day at school, all engineering students are invited to randomly join a team of 6 students. During the first semester of their first undergraduate year (14 weeks), student teams focus on problem-based learning in three academic disciplines (mathematics, physics and computer engineering) and collective working on an interdisciplinary hands-on project (lasting from weeks 2 to 12). Identical for all the participants, this project aims to facilitate learning from a concrete experience through applying the knowledge and techniques acquired through disciplinary problem-based learning, as well as to enhance teamwork skills and to initiate leadership roles. In 2011, the project consisted of designing a robot prototype capable of removing the nuclear waste resulting from the explosion at the Fukushima nuclear factory in Japan in March 2011. In terms of managerial skills, the learning objectives of the project are to help students enhance their task coordination abilities, as well as to increase their cooperation, communication and conflict management skills. Since the project launching in 2000, groups are expected to weekly rotate four distinct roles among members: the “time keeper”, the “moderator”, the “secretary” and the “scribe”. No explicit instructions are given concerning leadership organization.

Results and discussion

The analysis of the collective and individual reports enabled a classification of the 29 groups into four leadership categories. The first category, labeled “Waiting for Godot”, comprises eight groups who did not succeed in organizing themselves in roles and task sharing and where no leadership strategy emerged. The working patterns adopted by the six groups in the second category may have initially created the illusion that some kind of leadership emerged but the leadership potential generated by the “foot soldiers” petered out because of the presence of “hangers-on” who displayed a more passive attitude. The third category comprises seven groups, characterized by the emergence of “organizing leaders” who took command relatively late in the process to

“save” the team and mobilize members to ensure a reasonable performance. The eight groups in the fourth category chose to distribute leadership roles among members, achieving a high level of satisfaction and pride as regards their collective outcomes. An unexpected theoretical finding concerns leadership roles. We discovered that the student teams did not use all of the four leadership roles conceptualized by Barry (1991). They often relied on one or several organizational leaders as well as on a social leader for the “shared leadership” category. Within this category, we also observed a cognitive leader, not specified in Barry (1991) who might be specific in academic settings. As Holmer (2001) suggested, students with recognized expertise in one relevant area for the project task were perceived as legitimate in coordinating their teammates in that specific domain. “Expertise” may function as a form of “power” or “authority” (cf. French & Raven, 1959), thus as a leadership role to be distributed by the group among team members. We surmise at this stage the presence of a series of competencies exercised by some of the members in the shared leadership category which may contribute to an understanding of the role of the cognitive leader within these academic settings. Being able to call on existing theoretical knowledge for clarification purposes; being able to transpose to and validate this knowledge in new 15 situations and demonstrating skills in reformulation and explanation may be some of the skills and competencies that make up this profile. Aware that further research is required to give body to this type of leader, the research team has added a set of 9 questions on cognitive leader attributes to the individual questionnaire on teamwork processes and attitudes and these will be tested with future groups in the next phase of this project.

Another interesting pedagogical finding concerns the relationship between leadership, group structure and learning. Learning is limited when there is no leadership, weak to average when leadership is based only on organizational leaders and higher in the case of shared leadership. This could be interpreted using Holmes’ theory about team performance as a function of leadership, learning, and defensive routines (2001: 591), Defensive routines (Argyris, 1993) are risk-avoidant behaviors that protect individuals and groups from experiencing embarrassment and threat, while at the same time inhibiting their willingness to voice personal ideas, therefore reducing their capacity to deal with interpersonal difficulties and to learn new ways of dealing with

teamwork situations. Our results suggest that shared leadership groups maximize satisfaction and help students to overcome those defensive routines. As Bacon et al., (1999) point out, “Students learn more from good group experiences than from bad”, professors are thus responsible for designing appropriate pedagogical projects that may help students learn not only how to collectively deliver appropriate production outputs, but also how to organize as a team and how to function together as a self-managed group (O'Connor & Yballe, 2007).

Conclusion

This first study has enabled us to identify four leadership configurations that have emerged in student teams and which can be situated on a continuum. They evolve from inexistent or limited forms of leadership, through to more effective team performance due to organizing leadership input, culminating in shared leadership processes which generate higher levels of team performance and satisfaction. Building on the positive correlation established by Sivasubramaniam et al, (2002) between shared leadership and student team performance, this study has contributed to a better understanding of how shared leadership processes actually emerge, function, interact and succeed in student self-managed teams. It has also brought to light a possible new role particularly appropriate in academic settings, that of the cognitive leader. However, we still do not know if all student teams will eventually adopt shared leadership processes or whether this depends on some students' already possessing predispositions for exercising leadership. On practical and methodological levels, the orchestration of the pedagogical components inherent in the team design, particularly those concerning deadlines and tutor feedback, would seem to favor the emergence of at least temporarily structured leadership patterns. Further research on how group dynamics are influenced by tutor input at specific periods during the project as well as on the nature of this input (prescriptions, role-models, feedback...) would provide insight for designing effective pedagogical guidelines to deal with leadership issues in student teams. As this study demonstrated, the use of sociometric measures in revealing some of the underpinnings for developing group dynamics could be extended, particularly as regards possible exploitation by tutors.

References

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