



# **PRACTICE EXPERIENCE IN ASSESSING THE PROJECT MANAGERS' LEADERSHIP SKILLS**

SILVIA MAZZETTO

*School of Architecture and Interior Design, Lebanese American University, Byblos, Lebanon*

In construction, the achievement of a project is mainly due to the work of the project manager and the contribution they make, as team leader, of knowledge, experience, and coordination skills. This paper presents a practical approach in assessing the students' leadership skills at the College of Engineering at Qatar University, by running a multidisciplinary collaborative project. The students acted as the project managers, involved in leading several working groups. The main aim of the exercise was to propose a practical approach to assessing the extent to which the knowledge and skills of a leader are important for ensuring that a project is completed successfully. The project manager's ability to lead a team through the different work stages of a project is seen as a fundamental contributor to its success. This practical approach to the appraisal of leadership brings the theoretical teaching of Project Management closer to its practical applications, by encouraging students to learn the leadership techniques and tools commonly used in the professional setting. The paper concludes by suggesting that there is a need to focus more attentively on assessing leadership skills when selecting a project manager, in either an academic or a professional context.

*Keywords:* Multidisciplinary collaboration, Entrepreneurship, Practical approach, Teamwork, Responsibilities.

## **1 INTRODUCTION**

Many research exercises and studies have described the importance of project managers for the success of all projects. To attaining that success, the project managers usually have to demonstrate their knowledge of management tools, techniques, and their leadership skills when leading the project team. These skills allow the project managers to guide the team members in the right direction, resolving collaboration problems, coordinating the different tasks, assessing and reducing the risks, and building reciprocal respect, and trust.

The paper describes a practical approach for assessing the leadership skills of the project manager as he/she applies at Qatar University for two consecutive academic years (Fall 2015 and Fall 2016) in the form of a multidisciplinary collaborative project (Mazzetto 2016a).

The primary research objective was to simulate a real-work scenario opportunity for the students to address the real problems related to professional projects, such as the need for leadership skills in multidisciplinary teams, and the need to cope with the pressure of the imposed deadlines. The new practical experiences enabled the students to develop a correct professional attitude, highlight their leadership skills, and improve their positioning in the world of work.

## **2 LITERATURE REVIEW**

Numerous past studies have presented detailed research evaluating the impact of the project manager's skills and performance on the successful completion of a project.

In the literature (Muller and Turner 2010) to achieve the projects' success, the project managers have to demonstrate a solid knowledge base, and good leadership skills to guide their team during the progress of the projects, towards attaining the expected outcomes. In fact, the project manager's leadership skills significantly affect the success of every project, for this reason, such skills should be assessed at the selection stage to choose the appropriate leader for the project implementation.

In the literature, many studies have measured the skills, knowledge, and professional characteristics of project managers in the construction sector, particularly concerning the evaluation of the managerial abilities that are associated with leadership skills. Moreover, the ability to take the lead in managing and coordinating all the roles involved in the project.

Finally, there is a growing debate in the academic world about the contemporary needs of students' practical training that is required more and more in the professional project management sector.

Many authors (Edum-Fotwe and McCaffer 2000, O'Donnell *et al.* 2008) have explored learning methods that could be applied in the educational sphere to develop project management capabilities and skills in students, in compliance with the characteristics that the construction industry most requires in a project manager, so that these can be developed at the academic training stage.

Recent studies in the educational field (Major 2016, Muller *et al.* 2012, Shamir 2011) have highlighted the issue of bridging the gap between the professional and academic worlds, especially in the project management field. This issue has opened many critical questions, particularly about contemporary project management techniques, practices, standards, and approaches that are currently applied to address the increasing request for professionalism in the academic sector. The paper's outcomes provide an innovative assessment approach that could reduce the disconnection between theory and practice, particularly concerning the project managers' leadership ability (Mazzetto 2016b, Mazzetto 2017).

## **3 THE LEADERSHIP ASSESSMENT METHODOLOGY**

This paper describes an assessing approach that was applied at Qatar University, College of Engineering, involving both the Department of Architecture and Urban Planning (AUP) and the Department of Industrial and Systems Engineering (ISE). The applied multidisciplinary collaborative project brought together students from both the Departments in the Project Management courses, assembling them into working groups. That assessing methodology is shown schematically in Figure 1.

Developing the project required data to be collected; each student was required to make personal contributions and interactions within the groups, assessing their skills and their innate attitude to leadership, and thereby selecting the group leaders. Then the project managers during the multidisciplinary collaboration simulated a real-life working experience that was very important for teaching students what to expect in their working lives. In the end, the achieved results of the project managers were assessed and described in the final report to demonstrate the contribution of their leadership.

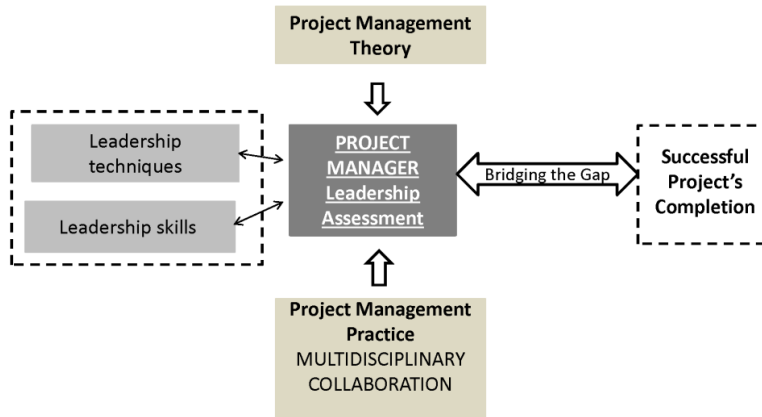


Figure 1. Multidisciplinary assessing methodology for leadership skills and techniques. Framework for collaborative projects.

### 3.1 Data Collection and Final Reports: Tools for Leadership Assessment

The group reports showed the collected data for assessing leadership skills including: (1) general information about the students and the projects carried out within the groups (2) a checklist of skills for assessing the leadership abilities of the project managers (3) an evaluation of the projects placed on the leadership abilities of the project managers. However, the results presented here only show the data for evaluating the leadership, to show how a possible study method was applied to multidisciplinary university collaboration.

### 3.2 Project Managers' Leadership Skills Assessment

The students selected the most critical leadership skills used by the project managers for carrying out their project, and they scored them (Figure 2), using a standard set of ratings (Table 1 and Table 2). The results (Figure 2) show the characteristics that were voted as the most important for the success of the leaders during the two academic years.

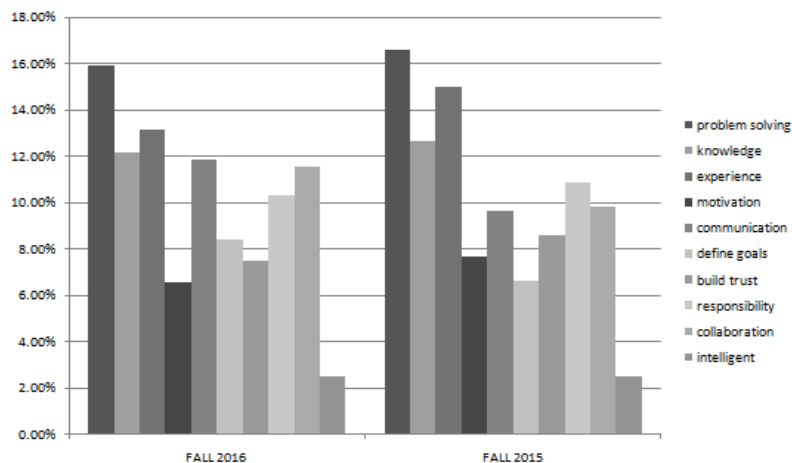


Figure 2. Leadership skills assessment for the multidisciplinary collaboration projects, average values (Fall 2015 and Fall 2016).

### 3.3 Assessment of the Project Managers' Leadership Skills and Techniques

After completing the process of assessing the project managers' leadership skills (Table 1 in Fall 2015 and Table 2 in Fall 2016), the data were compared, to show the correspondence between the skills and the project's success. There was a clear correspondence showing that a low percentage score for the leadership skills of project managers corresponds to a similarly low percentage score

Table 1. Leadership's skills and techniques assessment, total scores in Fall 2015.

| <b>Leadership Assessment Fall 2015</b>   | <b>Understanding of the leadership techniques and skills leaders use to work collaboratively in their team and communities.</b> |   |   |
|--|---|---|---|
| Criterion  | Adequate (Moderate understanding) Low (61-70) /100  | Accomplished (Clear Understanding) Average (71-80) /100 | Mastery (Excellent Understanding) Best (81-90) /100 |
| There is understanding of techniques Leaders use to work collaboratively with the team         | 10%   | 15%   | 7%  |
| There is understanding of the leadership skills which leaders use to provide for the community | 11%   | 15%   | 8%  |
| There is understanding of the leadership principles and rules                                  | 10%   | 16%   | 8%  |
| <b>TOTAL VALUES</b>  | <b>31%</b>  | <b>46%</b>  | <b>23%</b>  |

Table 2. Leadership's skills and techniques assessment, total scores in Fall 2016.

| <b>Leadership Assessment Fall 2016</b>   | <b>Understanding of the leadership techniques and skills leaders use to work collaboratively in their team and communities.</b> |   |   |
|--|---|---|---|
| Criterion  | Adequate (Moderate understanding) Low (61-70) /100  | Accomplished (Clear Understanding) Average (71-80) /100 | Mastery (Excellent Understanding) Best (81-90) /100 |
| There is understanding of techniques Leaders use to work collaboratively with the team         | 5%  | 20%   | 6%  |
| There is understanding of the leadership skills which leaders use to provide for the community | 5%  | 25%   | 7%  |
| There is understanding of the leadership principles and rules                                  | 3%  | 22%   | 7%  |
| <b>TOTAL VALUES</b>  | <b>13%</b>  | <b>67%</b>  | <b>20%</b>  |

for the project outcomes. The same values were repeated during the two multidisciplinary collaboration experiences both for average and high percentage scores, showing how the outcomes of a project are very often directly affected by the manager's leadership skills.

#### **4 RESULTS**

The presented multidisciplinary experience for assessing the leadership skills was conducted two years, and generated 28 complete projects, enabling the leadership skills of the project managers to be assessed by evaluating them against the results they obtained managing the final projects. The skills, interactions, and responsibilities that most significantly influenced the performance of the project managers were identified from the values they obtained in the leadership assessment.

The results showed that the outcomes of a project are very often directly affected by the manager's leadership skills, both regarding project quality and the completeness of the results obtained. There was a direct correspondence between the project outcomes and the leadership ratings of the project managers: low, medium, and high assessment scores for the projects matched with similarly low, medium, and high scores for the leadership skills of the project managers. The overall results of the students' leadership assessment have increased by about 21%, and the evaluation of the multidisciplinary projects has increased by about 1% of average values, in Fall 2016. The values of the best performances have approximately been in the same range across the two semesters (around 20% of the total values). Some common leadership styles were also identified that have not yet been analyzed in detail, but that did make it possible to identify common outcomes.

#### **5 CONCLUSIONS**

From the evaluations made, it can be concluded that the fundamental skills for good leadership by a project manager are an excellent problem-solving attitude, substantial practical experience, an adequate store of knowledge, and good communication skills.

The roles of the different participants in a project are often challenging to manage, but the ability and responsibility of the leader, as the guide, is precisely to know how to create a fair balance between the parties involved, and an adequate level of communication and collaboration. Some important conclusions can be drawn from the outcomes obtained, of which one is the importance of assessing the leadership skills of a project manager, both in the academic and the professional fields. A correct evaluation would make it possible to select the most appropriate project manager for a multidisciplinary project, also taking account of their skills and the level of authority they attained. The skills of a project manager, including their leadership style, can directly affect the outcome of how a project is managed, and its success.

Some limitations were imposed on this research, for example only a small sample of students was involved, due to the fact the multidisciplinary experience, done in coordination between different departments, was repeated for only two semesters. For that reason, the outcomes cannot be extrapolated to make an exhaustive assessment of the leadership requirements in the field of project management in higher education. That will require subsequent confirmation by similar exercises.

#### **References**

- Edum-Fotwe, F. and McCaffer, R., Developing Project Management Competency: Perspectives from The Construction Industry, *International Journal of Project Management*, 18, 111-124, 2000.
- Major, D., Models of Work-Based Learning, Examples, and Reflections, *Journal of Work Applied Management*, 8(1), 17-28, 2016.

- Mazzetto, S., Practice Experience and Multidisciplinary Collaboration in Project Management: A Case Study, in *Integrated Solutions for Infrastructure Development* Lau, H. H.; Tang, F. E., Ng, C. K.; and Singh, A. (eds.), Third Australasia and South-East Asia Structural Engineering and Construction Conference ASEA-SEC-3, Kuching, Sarawak, Malaysia, Oct 31-Nov 4, 2016a.
- Mazzetto, S., Theory, and Practice in Project Management. A Multidisciplinary Approach, in *Interaction between Theory and Practice in Civil Engineering and Construction*, Komurlu, R., Gurgun, A. P., Singh, A.; and Yazdani, S. (eds.). First European and Mediterranean Structural Engineering and Construction Conference, EURO-MED-SEC-1, Istanbul, Turkey. doi: 10.14455/ISEC.res.2016.100. May 24-29, 2016b.
- Mazzetto, S., Leadership and Collaboration in Project Management Education: A Case Study, in *Resilient Structures and Sustainable Construction* Pellicer, E., Adam, J. M., Yepes, V., Singh, A., and Yazdani, S. (eds.), Ninth International Structural Engineering and Construction Conference Valencia, Spain July 24-29, 2017.
- Muller, R., and Turner, R., Leadership Competency Profiles of Successful Project Managers, *International Journal of Project Management*, (28)5, 437-448, 2010.
- Muller, R., Gerald, J., and Turner J. R., Relationship between Leadership and Success in Different Types of Project Complexities, *IEEE Transactions on Engineering Management*, 59(1), 77-90, 2012.
- O'Donnell, H., Karallis, T., and Sandelands, E., Reflecting on the Skills Agenda: A Construction Industry Perspective, *Education and Training*, 50, 59-63, 2008.
- Shamir, B., Leadership Takes Time: Some Implications of (Not) Taking Time Seriously in Leadership Research, *The Leadership Quarterly*, 22(2), 307-315, 2011.