Finding the *Locus* of Project Management Principles in School Leadership and Management: A Conceptual Perspective

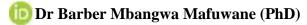# Finding the *Locus* of Project Management Principles in School Leadership and Management: A Conceptual Perspective

Dr Barber Mbangwa Mafuwane (PhD)

Independent researcher

https://orcid.org/0009-0009-3561-3871

Abstract

Purpose: The purpose of this study is to find the place and influence of project management principles in the leadership and management of schools.

Methodology: This study adopted a qualitative research approach to collect data from project management and school leadership and management literature. The literature that was of interest for this study was mainly the literature that focused on the changes in the education system of South Africa and the impact thereof on the role of principals and the functionality of schools as organizations.

Findings: This study established that principals of schools have applied project management principles and practices for ages in their craft without being conscious about it; and that their role as leaders and managers of schools has always been the same as those of project managers in big companies and industries.

Unique contribution to theory, policy and practice: The study further proposed that policy makers need to intervene in the training and development of school leaders and their staff members to prepare them for a cross-functional and cross-organizational consciousness that exists in their daily activities in their schools.

Keywords: *Project Management [Principles], Leadership, Management, Cross-Functional Teams/Activities, Cross-Organizational Teams/Activities*

Introduction

Education is a dynamic system that is designed to cater for the knowledge and skills needs of people in a dynamic world. In order to live up to this complex need, the education system and the education providers need to rise above the ordinary and traditional mode of transferring knowledge and skills, to treating every aspect of their work as a project that needs to be managed using specialised knowledge, skills and tools which are appropriate to the value of the teaching and learning process. The changes in the system bring about new trends which require that leaders and managers in the sector have to cutting edge knowledge and skills beyond the management of personnel and the delivery of the curriculum. The purpose of this paper is to identify the project management principles and find their place and impact in the leadership and management of schools.

This paper acknowledges that in a changing world where the nature of work also changes to conform to the emerging knowledge trends, the education that is provided also needs to change. A changing education system will require calculated changes in the paradigms and perspectives from which the entire system is viewed. Project management as a discipline is regarded as a driver of change, which requires forward-thinking individuals from different disciplines. The response of schools to the changes in the education system demands that school principals are properly skilled and versatile to handle the changes. This implies that principals must be well prepared to, as Mestry (2017) argues, deal with the new work demands, complex decisions and additional responsibilities which include diverse administrative and management functions such as procuring resources, managing learner discipline, resolving conflicts with parents and dealing with unexpected teacher and learner crises.

The writing up of this paper is informed by a perception that modern day principals must see their principalship role the same way as that of project managers by handling every administrative and management issue as a project. This aspect carries much weight for the purpose of this paper and will be explored in detail later in the paper. It is important to indicate that the daily activities in schools are presented as policy directives by the authorities or education officials. Typical examples include the admission of learners in schools, the appointment of teachers and other staff, ensuring functionality of the School Governing Body (SGB), supporting the SGB in its function of supporting the school to provide quality teaching and learning (QLTC), managing the finances of the school, and maximising the usage of available facilities in the school. The activities indicated above will differ in their complexity and the amount of work and the skills that will be needed to ensure that they are carried out for the benefit of the school. Given that project management as a field and a discipline is a high-end, scientific, and highly technical field, this paper will focus on establishing the basics of this field that can be implemented by schools in disadvantaged backgrounds. This refers to schools that may not have access to project management software and computers due to limited access to electricity, and schools which do not have the benefit of circuits and districts that may offer the requisite technical project management support.

Theoretical Framework

Weber (2012) contends that there is an understanding that knowledge is enhanced in a discipline through high quality theory as well as improving the abilities of practitioners to apply theories in an effective way. Given that project management is both a scientific discipline and a professional discipline (Svejvig, 2021) strong practice theories are needed to address the theory-practice dyad involving reflective practice and situated theorization.

The lens (framework) which I find appropriate for this paper for the reason that it concerns the filtering of project management into school management and leadership is a combination of the 'critical path method (CPM)' and the 'Critical chain project management (CCPM)' frameworks (Team Asana, 2023). The choice of the two frameworks is informed by the significant overlaps between them and the fact that they both encapsulate the important attributes which characterize the leadership and management activities and tasks that take place in schools.

To unpack the relevance of the two frameworks, I need to explain briefly the overlap between leadership and management in education and the significance of the two in realizing the business of schools at the school level. Principals are expected to provide direction in the school by ensuring that human resources (teachers and support staff) are available and in the right positions and quantities; manage the financial and human resources for the benefit of the school, and provide leadership in the allocation of the resources for the right purposes to realize the vision of the school. These activities will require the implementation of skills which are prominently found in project management. The CPM and the CCPM frameworks will provide the principal and other leaders in the school the necessary and appropriate skills to follow through the implementation of every task at hand.

Typical of the two frameworks is the fact that they locate every leadership and management related exercise that needs to be executed within specific and practical parameters which are required for the successful implementation of any task. Within PM and CCPM project management frameworks, carrying out any task will require creating task dependencies, tracking project goals and progress, prioritizing deliverables, managing due dates by raising red flags when tasks breach their allotted time, and using resource levelling which aims to resolve large workloads by distributing work across available resources (Team Asana, 2023). The CPM and the CCPM frameworks therefore provide leadership and management practitioners with relevant tools which keep them focused on the project goals and creating a task focused road map for every project to be carried out in the school.

Definition and context of project management, its principles and basics in the leadership and management matrix in schools

Project management (PM) has historically been assumed to be associated with industries and companies that handled physical projects such as building and road constructions, to mention just the two. Ingason and Shepherd (2014), argued that project management as a discipline has positioned itself as a critical player in business and other organizations where it built a reputation

of being critical about success and growth of the these formations. Given the recorded successes and growth of businesses and organizations (though not suggesting that no projects failed), PM continued to be applied with some degree of success in other fields including engineering, medicine, social sciences, information technology and education (PWC, 2012).

Seymour and Hussein (2014) drew and interesting analogy from the definition of PM offered by the Project Management Institute (PMI, 2013). They argued that if a project is a temporary group activity designed to produce a unique product, service or result, and that project management is the application of knowledge, skills, tools and techniques to project activities to meet the project requirements, then humans have started working on projects since ancient history. Without giving the examples of ancient projects that the PMI refers to, it is enough to acknowledge that the erstwhile perception that PM is more about physical projects is incorrect due to its multidisciplinary nature.

It therefore suffices to accept that project management as a discipline, involves the application of knowledge, skills and techniques to plan and execute projects effectively and efficiently. It is more about leading the work of a team to achieve the goals of a project within the given constraints. The teaching and learning exercise in schools is a project in its own right; and the purpose of teaching and learning is to impart knowledge and skills to enable the learners to realize their full potential. In order to achieve the goals of the teaching and learning exercise, the school leadership and teachers need to assume the roles of project managers; begin to carefully think about all the necessary steps to be followed to enable the teaching project to take root and succeed.

Chiu (2010) recorded two prominent engineers, Henri Fayol and Henry Gantt as the founding fathers of project management. Fayol was credited for developing the five functions of management which are still used in education management today. These functions are planning, organizing, commanding, coordinating, and controlling; and they blend well with the five key PM steps which are outlined by the PMI. The PMI proposes that project managers, and in this regard, school principals and teachers, in pursuit of the management functions indicated above, must have a clear execution plan which consists of: an initiation plan to start their teaching, develop a plan of how to reach their teaching goals, how they are going to execute their teaching plans, have in place monitoring and evaluation instruments to review and track their progress and planning for emergency changes in their plans, and finalizing their activities by receiving feedback which can be in the form of learning outcomes (PMI, 2013).

The second founding father of modern project management is Henry Gantt, an American engineer who later became a management consultant (Seymour and Hussein, 2014). Henry Gantt is credited for developing the Gantt chart which is still in use today. The Gantt chart is regarded as a visual representation of a project timeline, and it is used for project planning, project scheduling, task management, and resource management. Something that stands out about the Gantt chart is that it recognizes the fact that different aspects of a project are interdependent, meaning that projects have to be broken into smaller units which fit into each other in a particular

order to ensure the successful completion of a project. Any project will involve interplay between physical, human, financial, and other resources to realise its final goals. Writing up this paper for example, required the researcher to have physical resources such as a computer and other articles for reference, the physical presence of the researcher to execute the thinking and writing up process, and financial resources to pay for its publication and other charges.

According to SpriggHR (2020), every project manager must take into account a number of key project management principles before embarking on a project. These principles help to simplify things and give direction to the project by ensuring that from start to finish, the predetermined goals of the project are set and achieved. The project management principles according to SpriggHR (2020) include the vision and mission of the organization which must be clearly articulated clearly at the start of a project to enable the project participants to know the ultimate objectives thereof and therefore work towards plans to accomplish the objectives. At this point of embracing the vision and mission of the organization and planning towards the realization of the goals of the project, Kwak (2003) advices that job specification which specifies the requisite knowledge, skills and abilities of the workforce need to be taken into consideration for the successful completion of the project.

The second principle is referred to as the business objectives which concern itself with succinctly outlining the specific organizational goals or objectives, and communicating the expected results. Providing a clear definition of the actionable business objectives of the project enable the team players in the organization to evaluate their efforts against their performance, and to step up if the results are not satisfactory. This is followed by the principle of standards of engagement which is concerned about deliberating on the engagement expectations which include the frequency of job-specific meetings between the various members of the organization. In principle, this principle suggests that the success of any organization as would be evidenced by the realization of its goals and objectives depends on the communication that happens between players in the business of the organization.

The fourth principle of PM is the intervention and execution strategy. Gilbert-Jamison (2010) refers to this principle as the 'meat' of the project which includes using a gap analysis process to establish the appropriate approach to resolve an issue or issues in a project. A successful approach to solving any emerging issue(s) in a project will enable the project leaders to place properly qualified persons in the right places to map out and implement an execution strategy to solve the issue(s). It is important to indicate that the different PM principles do not operate in silos, but they are intertwined and interdependent. The fifth principle is the organizational alignment which is also referred to as the 'buy-in.' The interdependence of the PM principles is evident here between this principle and the third one (standards of engagement) which emphasizes the importance of communication between role players in a project. This principle sets out an important precedence about taking all participants who are affected by the outcomes of the project on-board through ongoing, regular, and transparent communication. SpriggHR

(2020) indicated that a rule of thumb for this principle is to always ensure the message includes the WIIFM ("what's in it for me') at every level of the workforce where the project takes place.

The sixth principle is defining milestones which focus on signifying the completion of specific, incremental portions of the project itself, which allows for a transparent way to track progress. Milestones are said to be significant in increasing team morale, drawing attention to team member achievements and ensuring that all team members' efforts are recognized, valued, and rewarded. This principle emphasizes the importance of giving incentives for outstanding, quality performance. The seventh principle is accountability and responsibility and it covers both the project manager(s) and all other team members in the project. At the heart of this principle is the fact that the project manager must have a specific skill set that helps to keep the team on task, but the team members are held accountable for the completion of the tasks allocated to the. The third and fifth principles indicated above come into play in this regard because both of them emphasize the importance of communication; and accountability can be ensured through constant communication between the project manager and the team members.

The last, but not the least important principle is retrospect and measuring success. This principle is basically about looking back at the faults and experiences during the course of the project. It is about conducting a review of the project after its completion; discussing the areas of success and areas that need improvement. This is the part of the project where the project manager(s) put together a project improvement plan that encapsulates corrective measures to deal with similar challenges in other projects. Furthermore, this principle includes the calculation of the returns on investment of the completed project.

Sketching the locus of PM into the leadership and management philosophy of the school

This section of the study provides an outline of the links which are evident from the contextualization of project management and its link with the business of schools. It is in no way intended to duplicate what has been explored above, but to support the view that project management principles are applicable in educational leadership and management, and to demystify the erstwhile assumption that PM is tylor-made for big industries and companies.

The established success of PM in big businesses and industries warranted its implementation in other sectors such as education. This view is supported by Cleland (1995) who contended that the body of knowledge in project management has the potential to provide guidance in the management of cross-functional and cross-organizational teams which are purported to play a significant role in the management of projects. Cross-functional teams, according to Organ and Bottorf (2022) and Pratt (2023) are a workgroup or group of people from various departments in an organization who work together to achieve a common goal. The workgroup collaborates within the organization to achieve a stated objective. Pratt (2023) indicates that cross-functional teams may be put in place on a temporary basis to function as a unit for the duration of a particular project; from start to finish of that project. Organ and Bottorf (2022) on the other hand, indicated that cross-functional teams are a breakaway from the erstwhile organizational structure

of working is 'silos' to enable the team to see the bigger picture of the organization. In a nutshell, cross-functional teams are appropriate for schools as they bring together personnel with different viewpoints, expertise, and backgrounds to efficiently tackle problems to achieve the goals of the school.

According to Petersimons.org (2018), cross-organizational teams mean working in partnerships or strategic alliances with other organizations to achieve the strategic objectives of the organization. Viggers and Kristensen (2023) indicated that cross-organizational teams stimulate innovation as they bring ideas from a wide spectrum of organizations to support the realization of the objectives of an organization. Both the cross-functional and cross-organizational teams can be kept as long as the organization needs them based on the service they provide, given that they are temporary teams. Cross-functional teams can be formulated using members of staff in the school whereas cross-organizational teams, a typical example of which is the National Education Collaboration Trust (NECT) in South Africa, is formulated from members of different organizations from outside the school.

Given the scholarly assumptions indicated above, it is clear that the techniques which characterize PM have been used in education without the school principals being aware that they were using PM tools to bring about success in their schools. Much as project managers in big industries use specialized knowledge, skills and techniques to achieve their project goals, school principals and their teachers also need curriculum knowledge, skills, and techniques to deliver the subject content for the success of their learners.

 In concert with the work and contribution of Henri Fayol who developed the five management functions of planning, organizing, commanding, coordinating and controlling, school principals today use the same functions to move their schools from good to great. The work of Henry Gantt the second founding father of project management also finds expression in the manner in which the schooling system is organized. According to the Gantt chart, the schooling system itself can be regarded as a project; considering that it outlines the project timeline, project planning, scheduling, tasks management, and resource management. The schooling system is also bound by timelines where there are four school terms, each described by planned activities which must be planned, funded, managed, and carried out with and within specific timelines.

Successful school principals acknowledge and appreciate the interdependence of smaller units and activities as they believe that they all contribute to a successful whole. Much as PM involves interplay between human, physical and financial resources to complete a project, so does teaching and learning. Schools require teachers (human), classrooms (physical), and money (financial) resources to carry out their business of teaching and learning. All the eight key principles of PM outlined by SpriggHR (2020) apply to schools and the schooling system. Bowen (2018) credited the vison and mission statement of any organization as being a reflection of the core ethical values of the organization and essential for its success by giving it direction towards the achievement of its goals and objectives. Schools, like many corporate entities must have a vision and mission as part of their management and leadership philosophy. Together with the vision and

mission, the other seven principles of PM contribute towards creating the organizational culture which is necessary for the functionality of the school. In summary, a review of the literature on project management and its processes has revealed that all the principles, skills and functions which are used by project managers are known and have been at the disposal of school managers in their leadership and management activities for ages.

Summary and conclusion

This study has confirmed the multidisciplinary nature of project management as a discipline and a practice. There is evidence from fields such as education to confirm that PM is not only applied in physical projects such building and road construction, and manufacturing industries such motor vehicle assembly plants, to mention a few examples. The study revealed that the education sector has been using project management principles since time immemorial. The core business of schools which is teaching and learning, the governance function which involves school governing bodies and Quality Learning Teaching Campaigns (QLTCs), and school administration all require the implementation of the eight PM principles and the five management functions which were explained in some detail above. It is therefore incumbent upon policy makers to engage in a level of training and development of school principals with a vision of making them aware of their cross-cutting roles as project managers in their schools.

According to Haron, Devi, Hassim, Alias, Tahir and Harun (2017), principals as project leaders must be knowledgeable about policies and procedures that govern the different functions and services in education. This knowledge will enable them to appreciate the complex nature of their sector and to understand that their success and that of their schools will be judged on the basis of how well the resultant product or service supports the mission and vision of their sector. Principals as project managers must take the road less travelled; that is the road taken by project managers in other sectors, where every inch of a project, from its initiation to its finalization, is managed by knowledgeable people. This will involve acknowledging that developing teachers more on curriculum content and its delivery alone is not enough to breed success in the schools. Teachers and other personnel must also be developed in the other functions between curriculum delivery and harvesting the products at the end of the school year.

The recommendations that emerged from this study include the following:

- That the principles of project management must become part of every planning process in the school, ranging from general management and leadership, to curriculum planning, delivery, and monitoring and evaluation, and
- Policy makers must emphasize the importance of training and development of school principals and their different staff members and make them aware of the interdependence of their roles for the success of their schools.

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