UNIVERSIDAD PARA LA COOPERACION INTERNACIONAL
(UCI)

DESIGN PROPOSAL FOR ESTABLISHING A PROJECT MANAGEMENT OFFICE IN ALLYIS TECH MAHINDRA'S LEARNING AND DEVELOPMENT DEPARTMENT

MARÍA LUISA ROMÁN LÓPEZ

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MASTER IN PROJECT MANAGEMENT (MPM) DEGREE

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This Final Graduation Project was approved by the University as partial fulfillment of the requirements to opt for the Master in Project Management (MPM) Degree

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Sophia Crawford
TUTOR

_____

Luis Diego Arguello Araya
REVIEWER No.1

_____

Paula Villalta Olivares
REVIEWER No.2

_____

María Luisa Román López
STUDENT

DEDICATION

To my family: Isabella, Marcella, Guiselle and Camila…without your support this would not have been possible.

ACKNOWLEDGMENTS

To the L&D team for the support and contribution during the research. To my boss, Jimmy, for transcending work and aiding my well-being in an empathetic and supportive way during my period of crisis.

I am grateful for the spiritual growth and connection with God, which allowed me to finish the process.

ABSTRACT

The objective of this Final Graduation Project (FGP) is to address the existing gap in project management practices within Allyis Tech Mahindra's Learning and Development (L&D) department by proposing a design for a Project Management Office (PMO). The research also aims to explore the potential benefits and challenges of its implementation in instructional design (ID) projects to improve the team's efficiency and the delivery of both learning solutions and training materials.

The research methodology utilizes both quantitative and qualitative methods, incorporating surveys, interviews, and literature reviews to assess ID processes and the maturity level of the L&D department. In addition, it analyzes different PMO models to determine the most suitable one for meeting the department's needs. The approach encompasses reviewing articles, industry reports, and project management standards, supplemented by data collected from stakeholders.

The research revealed some inconsistencies and weaknesses in ID and project management practices, as indicated by the level of maturity found (level 2.4) and L&D team members perceptions. The Controlling PMO type was selected as the appropriate one to provide support and a moderate level of control in areas such as Governance, Standardization, Training, Resource Management, Risk Management, Quality Assurance, Stakeholder Communication, and Continuous Improvement.

Keywords: PMO, L&D, ID, project management, organizational maturity analysis, PMO

models, benefits, and challenges

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ABBREVIATIONS AND ACRONYMS

CA	Cloud Academy
CE&S	Customer Experience & Success
FGP	Final Graduation Project
GMP	Green Project Management
ID	Instructional Design
IDs	Instructional Designers
KPIs	Key Performance Indicators
L&D	Learning and Development
LMS	Learning Management System
PMI	Project Management Institute
PMO	Project Management Office
RLs	Readiness Leads
Sr BPMs	Senior Business Program Managers
TSO	Skilling & Onboarding
SBUs	Strategic Business Units
SMEs	Subject Matter Experts
SDGs	Sustainable Development Goals
TAs	Technical Advisors
UN	United Nations
UCI	Universidad para la Cooperación Internacional

EXECUTIVE SUMMARY

Allyis Tech Mahindra is a global technology consulting vendor with offices across the United States, India, Costa Rica, and Romania. The company provides services to clients such as Starbucks and Microsoft, prioritizing technological innovation and community development. However, the focal point of the FGP was the San José, Costa Rica office.

Within the company, the L&D department is responsible for creating training solutions to enhance engineers' skills, specifically those working at Microsoft, its primary client. The department has encountered challenges stemming from the absence of a PMO responsible for managing and supporting ID projects, which has been identified as the key issue to be addressed in the FGP. These challenges include inconsistencies in project planning, execution, communication, and resource allocation. Furthermore, the remote work style increases these difficulties due to the lack of a centralized repository for storing project documents and facilitating the sharing of best practices.

The purpose of the FGP research was to bridge this existing gap in project management practices by proposing the implementation of a PMO. Additionally, the research aimed to explore the potential benefits and challenges of implementing the PMO within the L&D department.

The general objective was to design a PMO proposal for Allyis Tech Mahindra's L&D department, focused on enhancing project management practices for its ID projects. The specific objectives comprised assessing the current ID processes of the L&D department, the maturity level, and the departmental needs, analyzing different PMO types to establish the most appropriate model for the department, identifying the main characteristics, functions, roles, and responsibilities that the PMO should have, evaluating the benefits and challenges associated with the implementation of the PMO, and developing a communication strategy to introduce the PMO proposal to the employees and the stakeholders.

The research methodology integrated both quantitative and qualitative methods. Primary data collection involved interviews with stakeholders from the L&D department, encompassing managers and project leads. Secondary data sources comprised scholarly articles and industry reports. This mixed-methods approach utilized surveys for quantitative data and interviews and focus groups for qualitative data.

It was concluded that the team has good, but inconsistent ID processes, a maturity level of 2.4, and important gaps in areas such as cost and procurement. It is recommended to have dedicated staff for PMO and ID process maintenance, as well as collaboration with Tech Mahindra leaders for structural alignment. It is also suggested to focus on successfully establishing the PMO in Costa Rica to be able to replicate the model in other offices, such as India, in order to expand the PMO and standardize the process in both teams. The objective would be to ensure an adequate implementation process, as well as a correct transition between the stages that this process entails.

1 INTRODUCTION

1.1. Background

Allyis Tech Mahindra operates as a vendor, providing technology consulting, managed services, and staffing solutions to clients such as Starbucks, Microsoft, IGT, Xbox, Walmart, and others. It has four global locations: the United States, India, Costa Rica, and Romania. Each location contributes to the company's mission of driving technological innovation and community growth (Tech Mahindra Allyis, n.d.).

For this FGP, the focus is on the San José, Costa Rica location, specifically on improving project management practices within the Learning and Development (L&D) department. This department is responsible for creating training solutions to improve the skills and knowledge of Microsoft engineers, Allyis Tech Mahindra’s primary client.

Despite this important role, the L&D department has struggled since there is currently no PMO to manage and support the ID projects. Furthermore, as the L&D team works remotely, the lack of a common virtual project management location for storing general documentation has made it challenging to track, share, and use the best practices across ID projects.

While the FGP is influenced by the L&D department's partnership with Microsoft, the research will focus on Allyis Tech Mahindra's internal context to ensure confidentiality. It is also important to note that this research coincides with a significant transition within the company (acquisition), which could impact details throughout the FGP development.

1.2. Statement of the Problem

Although the L&D department has project managers and some established project management practices, the lack of a PMO has led to challenges in standardizing projects and developing cohesive project management proposals for the client. Some of these challenges are:

- **Planning**: There is variability in planning and executing approaches, combined with diverse stakeholder working styles. This requires constant adaptation by project managers to meet project needs, impacting project timelines, resource allocation, and stakeholder expectations.
- **Communication**: Project managers communicate differently with no official templates and use different communication channels based on stakeholders' preferences. This inconsistency in communication impacts expectations from one project manager to another and among stakeholders which leads to misunderstandings, delays, and a lack of alignment.
- **Resources and project requirements**: Currently, resource allocation is entirely managed by the Lead ID Manager, given that it sometimes results in under or overuse of resources due to unclear project requirements. This also affects the ID team's capacity, as not all projects receive the appropriate instructional designers (IDs), which leads to constant reallocation or additional training/learning curves that end up extending the overall project timeline.
- **Project Management practices**: There is no official and common location to store and share project documents, because it limits the L&D department's ability to share

best practices and lessons learned across projects; thus, it limits the overall project management experience.

1.3. Purpose

The FGP is proposed to address the main issues affecting the L&D department's operation; however, there may be other scenarios that can also be improved with it.

There was an initial effort to establish a PMO in 2023, but it was paused due to resource limitations. Therefore, the purpose of this research is to design a PMO structure to support current and new project managers whose goal is to enhance the L&D department’s project management practices in order to ensure consistency across projects, improved project outcomes and client satisfaction.

The design and implementation of a PMO seeks to develop the mindset of continuous improvement through the restructuring of processes and the introduction of different methodologies such as initiation processes and guidelines, communication protocols and templates, and change management and quality assurance processes, all in accordance with the Project Management Institute (PMI) guidelines.

The PMO is also expected to represent a major change in the L&D department in terms of support and guidance for project managers, regardless of their background, whether they are current staff or incoming hires. Having training and access to best practices can equip the team with the tools and knowledge required to manage projects using both traditional and agile methodologies, as it allows them to grow within their roles, contribute to the achievement of project objectives, and improve departmental performance.

1.4. General Objective

To design a PMO proposal for Allyis Tech Mahindra's L&D department, focused on improving project management practices for ID projects.

1.5. Specific Objectives

1. To assess Allyis Tech Mahindra's L&D department's current ID processes, maturity level, and departmental needs.
2. To analyze different PMO types to establish the most appropriate PMO model for Allyis Tech Mahindra's L&D department.
3. To identify the main characteristics, functions, roles, and responsibilities that the Allyis Tech Mahindra's L&D department's PMO should have.
4. To evaluate the expected benefits and challenges of the implementation of the PMO to determine expected results.
5. To compile communication considerations required for the introduction of the PMO within Allyis Tech Mahindra's L&D department.

2 THEORETICAL FRAMEWORK

2.1 Company/Enterprise Framework

In the context of this research, it is important to clarify that Allyis was acquired by Tech Mahindra in 2022, and the transition process in Costa Rica began in 2023. As the transition is still in progress (or maturing), the analysis relies on current accessible information regarding the company's status, values, and principles. Considering this; from now on, the company will be referred to Allyis Tech Mahindra, with the caveat that this information may undergo changes in the short or medium term.

Figure 1

Tech Mahindra's acquisition of Allyis

Note: From *Allyis All Hands Meeting, November 14, 2023* [PDF]. Unpublished confidential document.

2.1.1 Company/Enterprise Background

Allyis was established in the 1990s and based in Seattle. It offers technology consulting, managed services, and staffing solutions (Tech Mahindra Allyis, n.d.). It counts with more than 2000 employees located in United States, India, Romania, and Costa Rica, and generates revenue primarily through managed services. Its client base includes consumer and enterprise software clients, as well as industries such as consumer electronics, retail, food, and healthcare (Tech Mahindra, 2022).

As a result of the acquisition, Tech Mahindra plans to use Allyis' L&D services for tasks such as building knowledge bases, advising on learning curriculums, customizing training platforms, and designing learning programs.

2.1.2 Mission and Vision Statements

2.1.2.1 Mission

> We commit to developing local talent to succeed in a changing global market. We deploy community talent using our Greenshoring™ Mode[1]l to provide global competitiveness. We harness all the strengths of our diverse talent pool and work hard to create an inclusive culture and workplace for all employees. We maximize the use of community talent and localized infrastructure. (Tech Mahindra Allyis, n.d.)

[1] Greenshoring™ is the process by which companies can locally outsource their IT functions in a conscionable cost-effective manner while being true to the communities they are based out of. From “The Greenshoring™ Model” by Allyis Tech Mahindra. (n.d.). *About us*. https://www.allyis.com/companyinfo

2.1.2.2 Vision

Currently, Allyis Tech Mahindra does not have a written vision. Therefore, the following is proposed based on the mission and values of the company (formulated with support from the L&D team):

To drive technological innovation and foster community growth, we envision a future where our solutions empower organizations while remaining connected to our values of integrity, collaboration, and continuous improvement.

2.1.3 Organizational Structure

The organizational structure of Allyis Tech Mahindra is primarily composed of two teams: Delivery & Sales and Support Function.

It is instrumental to note that Allyis Tech Mahindra; being a service provider, has its own structure. However, projects are also influenced and impacted by the structure that the client (Microsoft) holds. In other words, there are roles associated with the client such as Subject Matter Experts (SMEs), Technical Advisors (TAs), Readiness Leads (RLs), Senior Business Program Managers (Sr BPMs), Director of BPMs Management, and others.

Considering the accessibility of information and the confidentiality required by the client, this FGP will focus on the structure/roles within Allyis Tech Mahindra to strengthen internal project management practices and, consequently, improve relationships and practices with the client.

Within the theoretical framework of project management, Allyis Tech Mahindra adopts an organizational structure that aligns with the *Functional or Centralized* structure, as identified through the PMI analysis of organizational structure types. According to the

PMI (2017), a functional structure is “an organizational structure in which staff is grouped by areas of specialization and the project manager has limited authority to assign work and apply resources” (p.707).

Before presenting Allyis Tech Mahindra’s organizational structure (Figure 3), Figure 2 presents the primary roles within the L&D department. This aims to illustrate the interrelationship among these roles and their impact on projects, all of which fall under the Skilling and Onboarding (TSO), and Delivery Excellence teams.

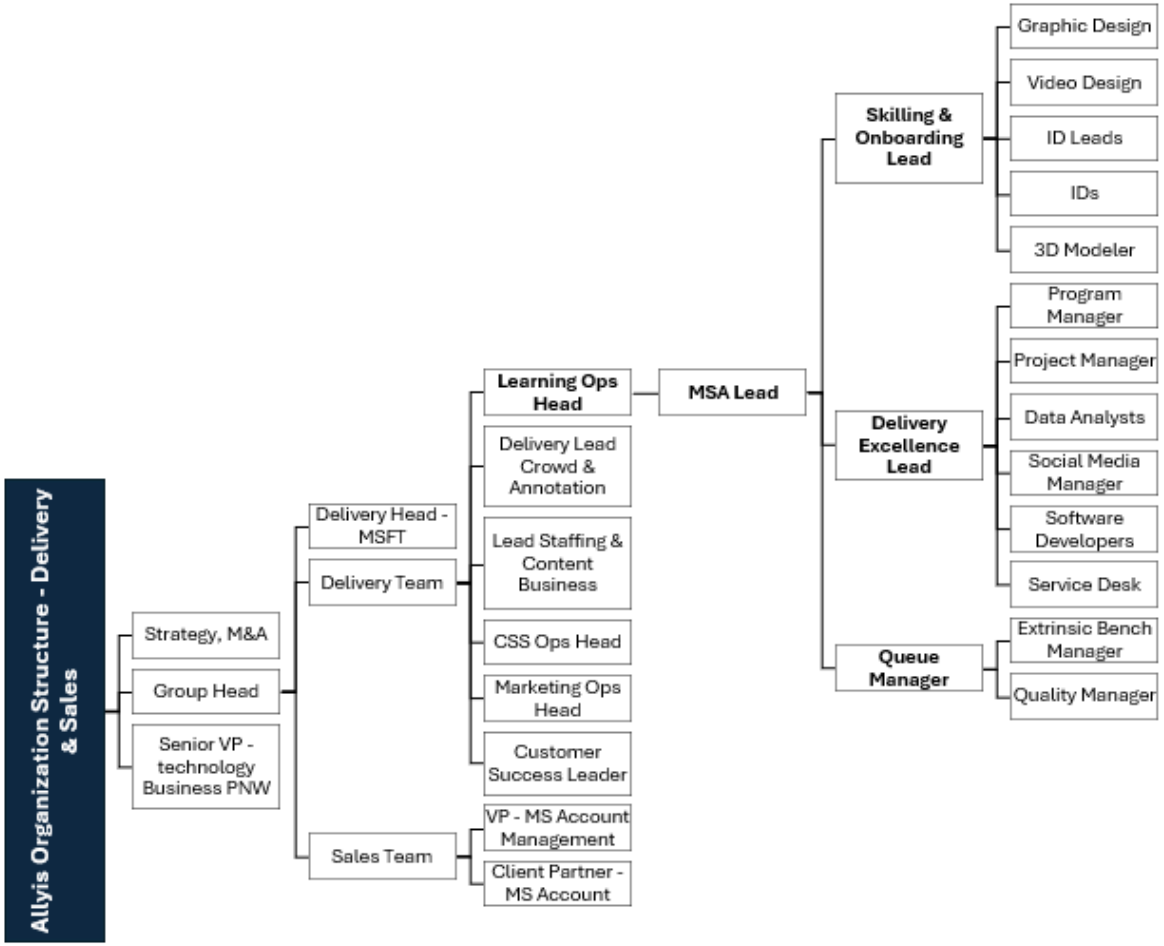
Figure 2

Allyis Tech Mahindra Key Roles within the L&D Department

Note: Own creation based on internal communication with Allyis Lead ID Manager and MSA Lead.

Figure 3

Allyis Tech Mahindra Organizational Structure



Note: Adapted from *Allyis All Hands Meeting, November 14, 2023* [PDF]. Unpublished confidential document. Own creation.

2.1.4 Products Offered

Allyis Tech Mahindra offers a variety of products, which encompasses technology consulting, managed services, staffing solutions, Digital Experience, Cloud, AI & Engineering, Data & Analytics, and Technical Support Services. Other specialized products include Content Moderation, L&D, ID, and Marketing Services. Specifically, the proposal of this FGP focuses on the L&D Department.

The primary goal of this department is to create impactful learning experiences and training materials, such as online-instructor-led courses, labs, assessments, and other relevant training formats. The team tailors its services based on project backlog prioritization and the identified needs, goals, and challenges of its primary client, Microsoft.

The products are built to improve different key performance indicators (KPIs), which can comprise course completion rates, skill acquisition, performance improvement, or employee's knowledge retention and engagement.

2.2 Project Management Concepts

The following theoretical foundation mainly relies on the PMI guidelines, which serves not only as a key reference within the master's degree framework at the Universidad para la Cooperación Internacional (UCI), but also at a global level for the development of professionals in the industry.

2.2.1 Project

The PMI (2021) defines project as:

> a temporary endeavor undertaken to create a unique product, service, or result. The temporary nature of projects indicates a beginning and an end to the project work or a phase of the project work. Projects can stand alone or be part of a program or portfolio. (p.4)

Additionally, projects are “undertaken to fulfill objectives by producing deliverables. A deliverable is defined as any unique and verifiable product, result, or capability to perform a service that is required to be produced to complete a process, phase, or project” (PMI, 2017, p.4). The FGP aligns with this definition as it is a temporary initiative (in the context of the master's degree) aimed at designing and establishing a PMO within the L&D department, which is expected to improve the way they manage projects.

The deliverables include an assessment report on current ID processes and departmental maturity, and an analysis of PMO models. Based on these findings, the FGP aims to propose a PMO structure with defined characteristics, functions, roles, and responsibilities.

2.2.2 Project Management

Within the scope of this proposal, understanding project management is required to achieve the planned results. Project management, as defined by the PMI (2021), is the “application of knowledge, skills, tools, and techniques to project activities” (p.4) with the possibility of employing different approaches such as predictive, hybrid, or adaptive.

Understanding this concept is not only vital for designing an appropriate PMO, but it also contributes to meeting business objectives, satisfying stakeholder expectations,

increasing predictability, managing risks, resolving issues, improving resource utilization, and handling change more effectively (PMI, 2017, p.10).

2.2.3 Project Management Principles

While acknowledging that all project management principles are relevant, for the purpose of this theoretical framework, the emphasis will be on those considered key for the PMO proposal (Figure 4).

Figure 4

Project Management Principles

Note: Own creation based on Project Management Institute. (2021). *The Standard for Project Management.* ANSI/PMI 99-001-2021

2.2.3.1 Create a collaborative project team environment

The FGP recognizes the impact of a collaborative team environment, where factors like team agreements, structures, and processes are decisive (PMI, 2021, p.28). This

principle ensures that members within the L&D department work together with clear roles, responsibilities, and tasks, which in turn creates the appropriate environment to achieve the proposed objectives. Additionally, regular communication can enhance overall coordination and team effectiveness.

2.2.3.2 Effectively engage with stakeholders

Engaging the appropriate stakeholders is fundamental for the PMO proposal as this process involves determining how, when, and under what circumstances they should be engaged. This also encourages frequent communication and interactive activities (PMI, 2021, p.31). This principle aims to minimize negative effects and maximize positive ones to satisfy stakeholders.

2.2.3.3 Focus on value

This principle emphasizes the ongoing evaluation and adjustment of the project's "alignment with business objectives and intended benefits and value." (PMI, 2021, p.34). In this sense, the FGP requires the project team to adapt quickly and constantly evaluate progress against predetermined outputs, baselines, and the business case to confirm and maintain alignment with the needs of the L&D department.

2.2.3.4 Demonstrate leadership behaviors

This principle highlights the significance of demonstrating adaptable "leadership behaviors to support individual and team needs" (PMI, 2021, p.40). The FGP aims to prioritize vision, creativity, motivation, and empathy to reach the PMO's desired results while maintaining team involvement and stakeholder satisfaction.

2.2.3.5 Enable change to achieve the envisioned future state

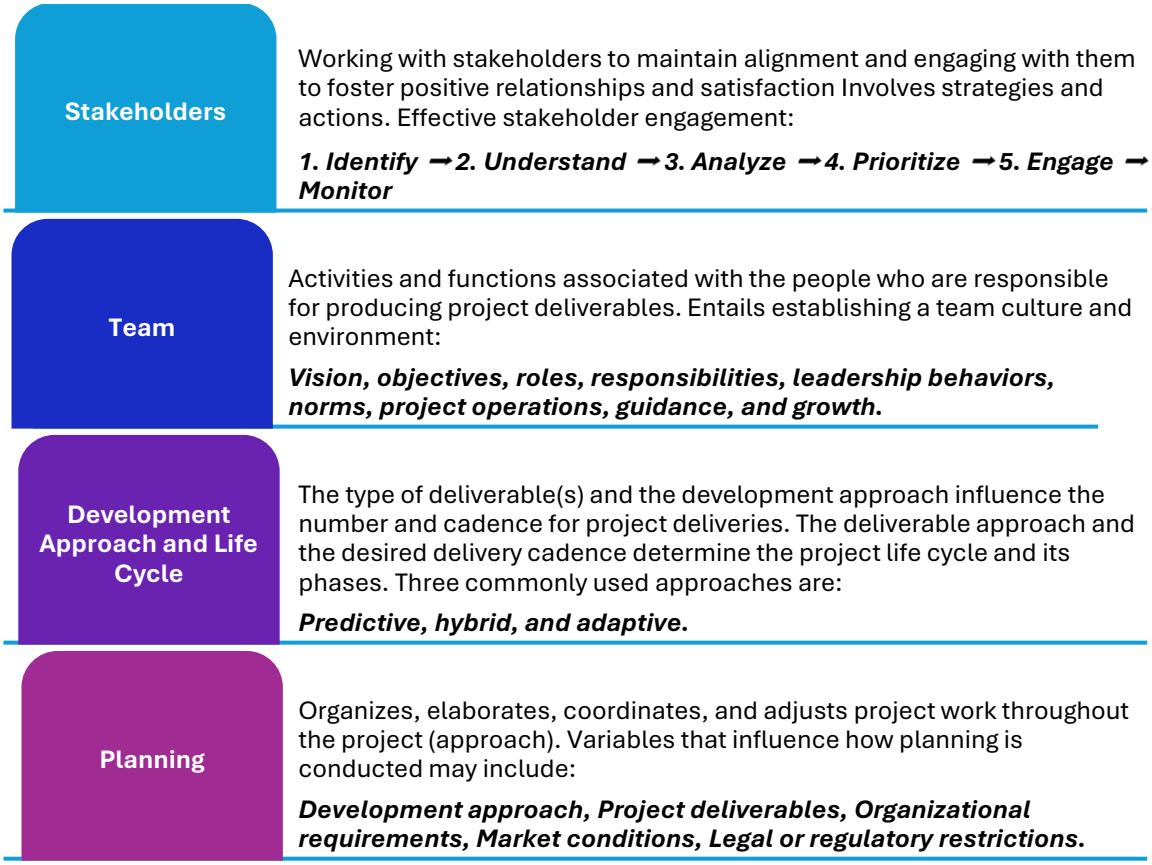
This principle involves preparing people for change to achieve the proposed future state (PMI, 2021, p.58). The FGP needs to prioritize stakeholders' needs and desires to align the PMO proposal for their benefit and satisfaction. This requires the ability to adapt and respond to changes as quickly and efficiently as possible, particularly in the current transitional context of the company.

2.2.4 Project Management Performance Domains

Project Management Performance Domains are characterized by their interactive, interrelated, and interdependent nature, and they work together to achieve the project's goals. The activities within each domain are determined by the context of the organization, the project, deliverables, the project team, stakeholders, and various other factors (PMI, 2021, p.7).

Figure 5

Project Performance Domains: Stakeholders, Team, Development approach and Life Cycle, and Planning



Note: Performance Domains short description. Based on Project Management Institute. (2021). *The Standard for Project Management.* ANSI/PMI 99-001-2021

Figure 6

Project Performance Domains: Project work, Delivery, Measurement, and Uncertainty

Note: Own creation based on Project Management Institute. (2021). *The Standard for Project Management.* ANSI/PMI 99-001-2021

While project management principles primarily guide behavior, performance domains offer key areas of focus (PMI, 2021, p.4). Throughout the development phase of the FGP, further research will be conducted to determine how the FGP objectives align with these principles and performance domains to ensure a proper guide through the PMO proposal's life cycle.

2.2.5 Project management Knowledge Areas

According to the PMI, knowledge areas provide specific processes, inputs, outputs, tools, and techniques to guide project execution and delivery (PMI, 2017, p.23). These ten knowledge areas are: Project Integration Management, Project Scope Management, Project Schedule Management, Project Cost Management, Project Quality Management, Project Resource Management, Project Communications Management, Project Risk Management, Project Procurement Management, and Project Stakeholder Management.

After analyzing these knowledge areas, it was identified that some of them are directly relevant to the FGP within the current master's degree context and timeframe for completing the research. Although all the knowledge areas are important for the overall development of the project, some may have limited direct applicability at this initial stage.

Table 1

Knowledge Areas Applicability

Knowledge Area	Definition (PMI, 2017, p.24)	Applicability
Project Integration Management	Includes the processes and activities to identify, define, combine, unify, and coordinate the various processes and project management activities within the Project Management Process Groups.	Coordinate and integrate all the processes and activities related to the FGP (i.e.: develop a project plan, coordinate work packages, etc.).
Project Scope Management	Includes the processes required to ensure the project includes all the work required, and only the work required, to complete the project successfully.	Define FGP scope and boundaries (i.e.: create a scope statement, identify main deliverables and requirements, etc.).

Knowledge Area	Definition (PMI, 2017, p.24)	Applicability
Project Schedule Management	Includes the processes required to manage the timely completion of the project.	Plan and manage FGP timeline, prioritize activities, and assign responsibilities (i.e.: create schedule, define milestones, etc.).
Project Cost Management	Includes the processes involved in planning, estimating, budgeting, financing, funding, managing, and controlling costs so the project can be completed within the approved budget.	Estimate costs related to the FGP development. However, it might become more relevant during later stages of the PMO implementation (i.e.: estimate costs, define budget, etc.).
Project Quality Management	Includes the processes for incorporating the organization's quality policy regarding planning, managing, and controlling project and product quality requirements, in order to meet stakeholders' expectations.	Ensure the quality of the FGP development process and the subsequent PMO design proposal (i.e.: define specific criteria, identify areas of opportunity, etc.).
Project Resource Management	Includes the processes to identify, acquire, and manage the resources needed for the successful completion of the project.	Identify and allocate resources needed to develop the FGP (i.e.: human resources, physical resources, resource utilization, etc.).
Project Communications Management	Includes the processes required to ensure timely and appropriate planning, collection, creation, distribution, storage, retrieval, management, control, monitoring, and ultimate disposition of project information.	Communicate effectively throughout the FGP development (i.e.: communicate with UCI professors, and relevant participants, share updates and roadblocks, etc.).

Knowledge Area	Definition (PMI, 2017, p.24)	Applicability
Project Risk Management	Includes the processes of conducting risk management planning, identification, analysis, response planning, response implementation, and monitoring risk on a project.	Ensure adequate planning to achieve completion of the FGP within the available time frame (i.e.: identify risks, develop risk response plan, or mitigation actions.
Project Procurement Management	Includes the processes necessary to purchase or acquire products, services, or results needed from outside the project team.	Acquiring external products or services is not the primary focus in the FGP.
Project Stakeholder Management	Includes the processes required to identify the people, groups, or organizations that could impact or be impacted by the project, to analyze stakeholder expectations and their impact on the project, and to develop appropriate management strategies for effectively engaging stakeholders in project decisions and execution	Identify and manage stakeholders throughout the FGP lifecycle (i.e.: perform a stakeholder analysis and a subsequent stakeholder engagement plan).

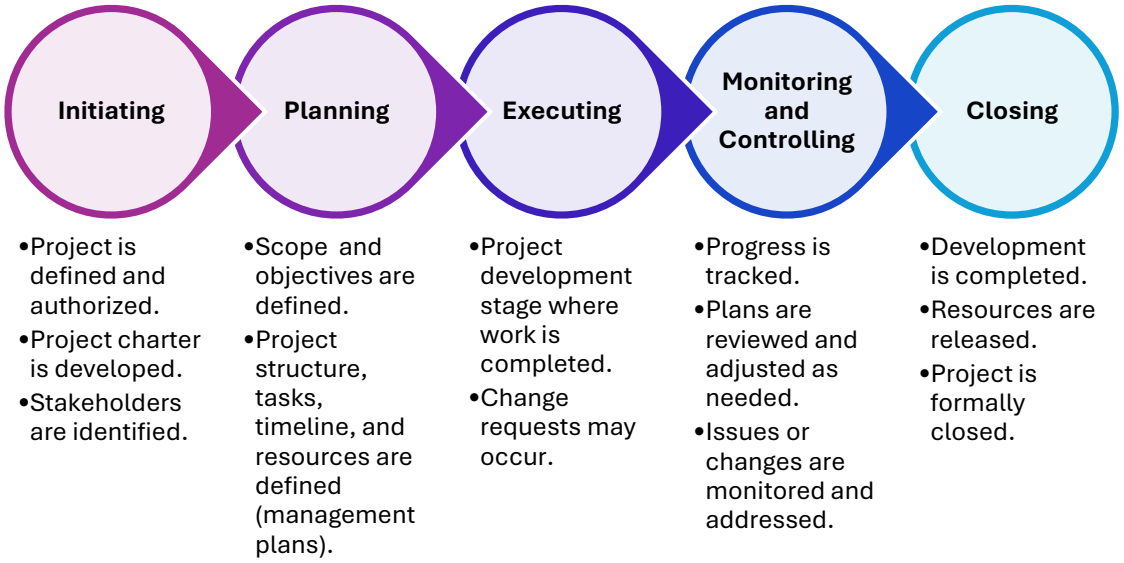
Note: Own creation based on Project Management Institute. (2017). *A guide to the project management body of knowledge* (PMBOK guide). 6th edition. ISBN: 978-1-62825-184-5

2.2.6 Project Management Process Groups

The PMI defines process group as a "logical grouping of project management processes to achieve specific project objectives" (2017, p.23).

Figure 7

PMI's Project Management Process Groups



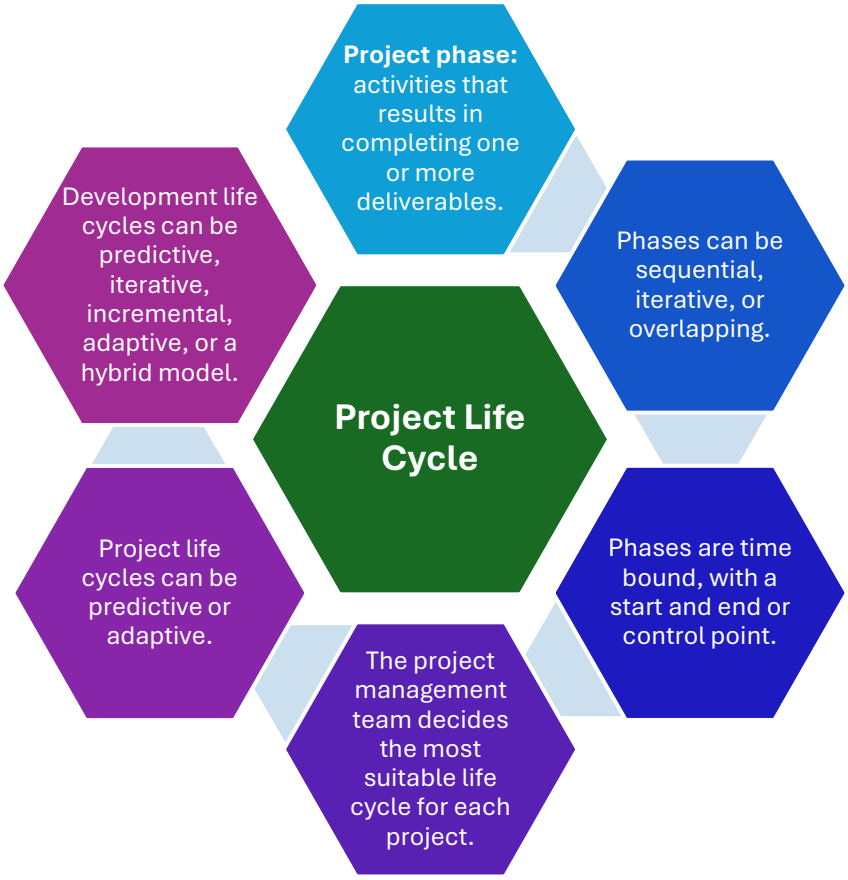
Note: Own creation based on Project Management Institute. (2017). *A guide to the project management body of knowledge* (PMBOK guide). 6th edition. ISBN: 978-1-62825-184-5

2.2.7 Project life cycle

"A project life cycle is the series of phases that a project passes through from its start to its completion" (PMI, 2017, p.547). In the context of the L&D Department PMO proposal, understanding and adhering to a given project life cycle will help to provide a structured approach to guide the development of the FGP.

Figure 8

PMI's Project Life Cycle

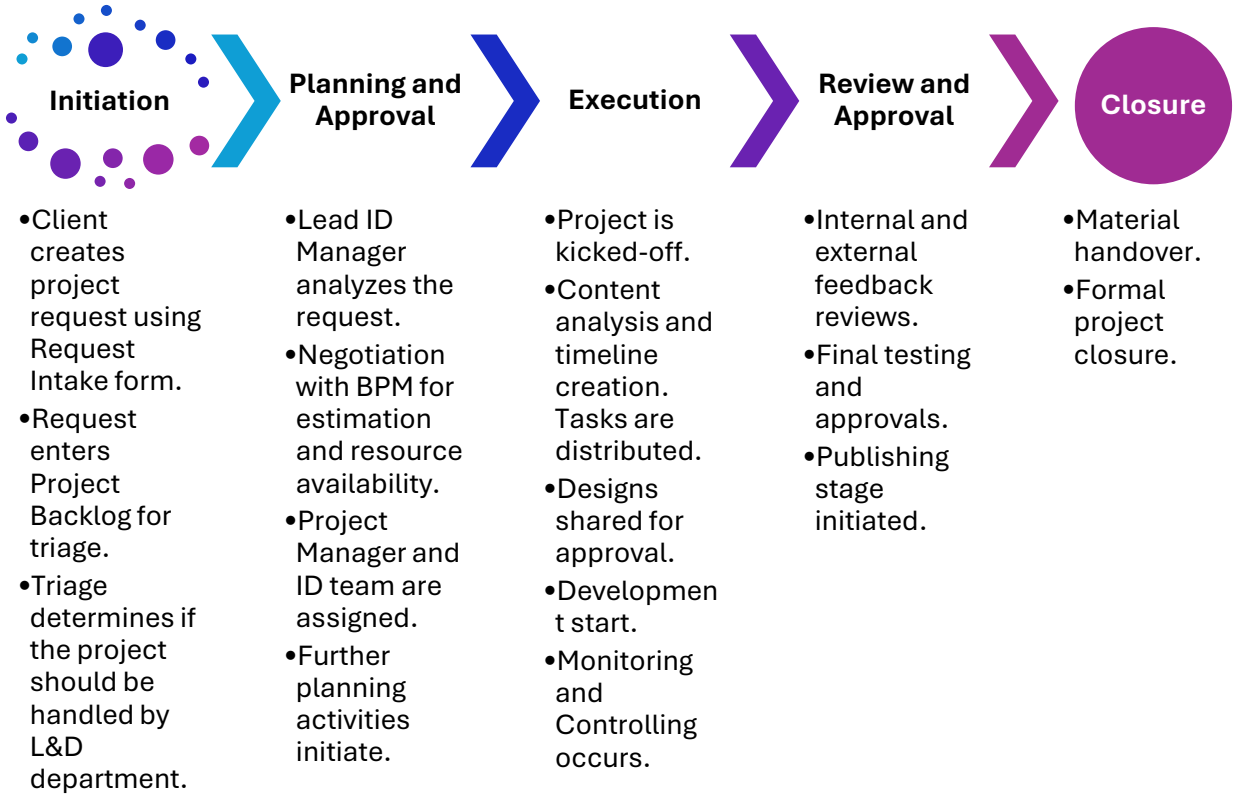


Note: Own creation based on Project Management Institute. (2021). *A guide to the project management body of knowledge* (PMBOK guide) and *The Standard for Project Management*. 7th edition. ISBN: ISBN 978-1-62825-664-2

Figure 9 describes the most commonly used project life cycle for the L&D Department initiatives:

Figure 9

Allyis Tech Mahindra L&D Project Phases



Note: Own creation based on Allyis Tech Mahindra personal communication, February 2024.

2.2.8 Predictive, adaptative and hybrid projects

The following comparative table displays predictive, adaptive, and hybrid life cycle approaches as defined by the PMI. These understandings can support tailoring the FGP's design and execution to the specific needs of Allyis Tech Mahindra's L&D Department.

Table 2

Predictive, adaptative and hybrid projects

Aspect	Predictive (Waterfall)	Hybrid	Adaptive (Agile)
Description	• Project goal, scope, time, and cost can be established at the start, with initial known requirements. • Changes are carefully managed.	• Project goal can be clear at the start, but require ongoing refinement based on feedback or unexpected events. • Combination of predictive and adaptive elements (based on project needs).	• Project goal can be clear at the start, but initial requirements can be refined, detailed, or changed based on feedback, environment, or events. • It is agile, iterative, or incremental.
Project Requirements	• They can be defined at the start and remain stable throughout the project.	• There is uncertainty or risk around the requirements.	• They are subject to high uncertainty and volatility, and likely to change throughout the project.
Development Approach	• Linear and sequential, with defined phases.	• Combination of linear and adaptive elements.	• Iterative and flexible.

Note: Own creation based on Project Management Institute. (2021). *A guide to the project management body of knowledge* (PMBOK guide) and *The Standard for Project Management*. 7th edition. ISBN: ISBN 978-1-62825-664-2

2.2.9 Company strategy, portfolios, programs and projects

As previously stated; due to confidentiality agreements between Allyis Tech Mahindra and its client, the information presented in the following section serves just to provide context of the services without further elaboration into Microsoft processes. The objective is to present relevant information that contributes to the FGP and PMO proposal to ensure strict adherence to confidentiality requirements to safeguard any sensitive information.

Furthermore, it is essential to specify that the L&D Department interacts with the Customer Experience & Success (CE&S) Sr BPMs, who oversee specific strategic business units (SBUs) and are the ones that have full access and visibility to portfolios and programs. The client's main focus is to place learners at the center of the approach while aligning learning initiatives with measurable business outcomes for effective employee development and organizational success (Personal communication, February 2024).

As presented in Allyis Tech Mahindra's organizational structure (Figure 3), the L&D Department falls under the TSO Team. Their primary goals are to:

- Create foundational, specialist, and advanced learning paths.
- Provide visibility and metrics on skilling development status and consumption data.
- Create governance to align training development with organizational strategy/goals.
- Ensure a consistent learner experience across all SBUs.

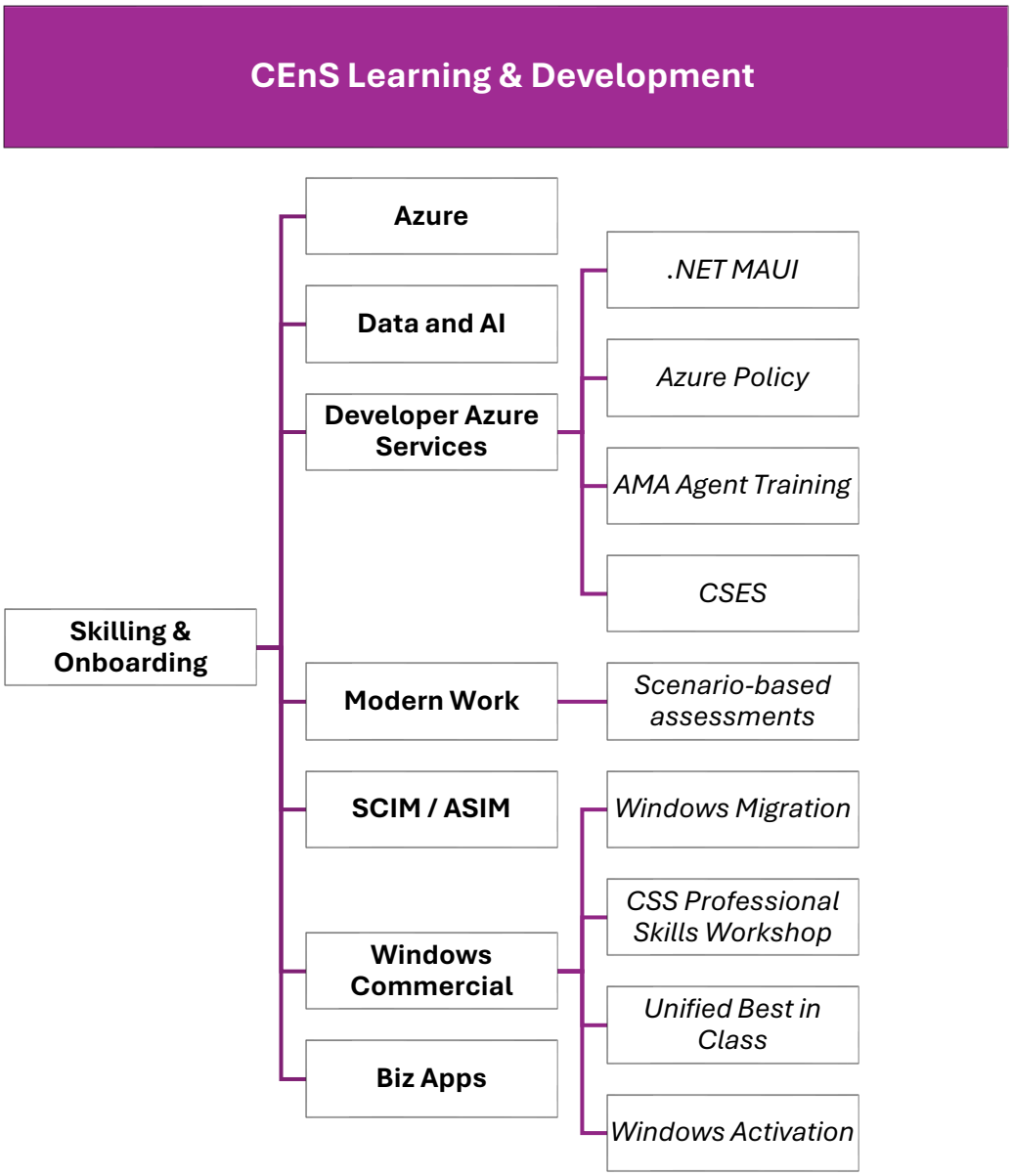
Based on this, the L&D catalog includes the following services:

1. **BEACON:** This is the intake system for recording, tracking, and managing training requests. It manages the full lifecycle of a Learning Item or Learning Path, from proposal to retirement.
2. **CA Issues:** This process addresses issues (break/fix) with trainings published in the Learning Management System (LMS).
3. **Microservices:** Involve services such as accessibility, security and compliance checks, animation video creation, closed captioning, creative arts and graphics, success factors to Cloud Academy (CA) bulk migration, and video editing.

Figure 10 is presented as an illustrative example of how Allyis Tech Mahindra's program (relevant to the FGP) and projects can be organized. It is significant to note that this representation does not fully reflect the actual complexity of the organizational structure, as there are many more projects and levels of complexity involved.

Figure 10

Example of Program, Portfolio, and Projects



Note: Own creation.

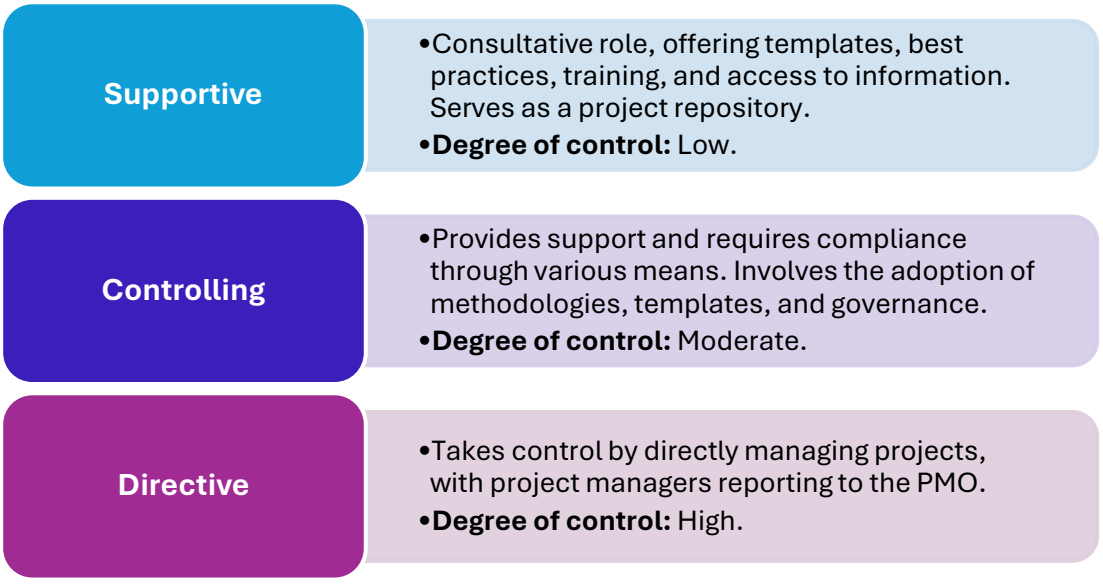
2.2.10 Project Management Office

The Project Management Office is "an organizational structure that standardizes project-related governance processes, and facilitates the sharing of resources, methodologies, tools, and techniques" (PMI, 2017, p.48). This means that PMOs support the planning, execution and monitoring of projects by assuming tasks and organizing functions and activities that are relevant to it (Pinto et al., 2019, p.449).

Moreover, PMOs promote best practices through coaching, mentoring, and training. They monitor overall project compliance in terms of standards, policies, and procedures. (PMI, 2017, p.49). Considering that this FGP focuses on designing a PMO proposal, it is imperative to review the different types of PMOs and their role.

Figure 11

Types of PMOs as per PMI



Note: Own creation based on Project Management Institute. (2017). *A guide to the project management body of knowledge* (PMBOK guide). 6th edition. ISBN: 978-1-62825-184-5

Associated with the previous roles and responsibilities, the concept of PMO's virtual repositories and e-learning portals represents a valuable resource to improve project management practices within organizations. In the Comtrade's PMO Educt portal case study, the authors highlight that these types of platforms serve as

> A focal point for sharing knowledge and experience, continues professional development, transparency of expertise, promoting personal competences as well as assessing a PM professional capability. It is an online communication platform for those who are or want to be involved in project management and also provides a significant resource library due to its ability to effectively shape and present existing and future company materials. (Atanasijević et al., 2019, p.76)

As an example, this PMO portal includes sections such as PMO Newsletter, PMO Slack Channel, PM Coffee Breaks, PM Surveys, PM Competence Center, PM Education, and Seafile (internal SharePoint) to centralize not only company materials, but also project management knowledge, trends, training and other resources. It is a common location that promotes discussions and exchange of experiences among project management and other professionals interested in the field.

The theory around PMOs indicates that although their function varies between organizations, their importance is increasing and their focus is on having a more strategic position, which involves expanding their range of responsibility and working closely with leadership teams to achieve organizational goals (Pirotti et al., 2021, p.40). In this sense, a PMO is expected to act as a mediator between project standards and project outcomes by defining the appropriate standards and the level of management required for each project

(p.45), considering that “it is the organization and its needs that determine the responsibilities required of the PMO and in turn the benefits it provides to the organization” (Silvius, 2021, p.1068).

2.3 Other applicable theory/concepts related to the project topic and context

2.3.1 Organizational Maturity

A maturity model is a method that measures an organization's ability to improve its performance in a certain area. It can be applied to projects, divisions, and organizations to assess their processes, resources, people, culture and quality, among other areas. These models are designed to identify and define maturity levels and improvement objectives (Bruneaux, 2022; Gomes & Caldeira, 2013).

There are different types of maturity models. The following table shows some of the most frequently used:

Table 3

Maturity Models

Maturity Model	Description
Capability Maturity Model (CMM) - (Bruneaux, 2022; Eby, 2022) **Developed by:** Software Engineering Institute (SEI)	Designed for software development processes, the CMM assesses a company's maturity level by evaluating its standardized processes. It defines five maturity levels: 1. Initial (beginner) 2. Repeatable or Managed (proficient) 3. Defined (savvy) 4. Quantitatively Managed (expert) 5. Optimizing (mastery) **Approach**: staged and continuous.
Organizational Project Management Maturity Model (OPM3) - (Gomes & Caldeira, 2013; Eby, 2022) **Developed by:** Project Management Institute	The OPM3 assesses maturity levels in projects, programs, and portfolios. It focuses on the ten knowledge areas defined in the PMBOK and helps to define KPIs to improve the project management efficiency. It involves four maturity stages (not levels): 1. Standardize 2. Measure 3. Control 4. Continuously improve **Approach**: iterative / incremental.
Project Management Maturity Model (PMMM[SM]) - (Eby, 2022; Laoyan, 2022)	Just like OPM3, the PMMM[SM] uses the PMBOK knowledge areas to analyze an organization's maturity level. It uses a "matrix with five columns across that indicates

Maturity Model	Description
Developed by: PM Solutions	maturity levels, and ten rows down to indicate knowledge areas" (Laoyan, 2022). These five levels are: 1. Initial process 2. Structured process and standards 3. Organization standards and institutionalized process 4. Managed process 5. Optimizing process **Approach**: staged and continuous.
Portfolio, Program and Project Management Model (P3M3) - (OGC, 2010; Gomes & Caldeira, 2013; Eby, 2022) **Developed by:** Axelos	Gomes and Caldeira refer to this model as an improved version of the PMMM. It evaluates processes related to portfolio, program, and project management using five maturity levels and seven Process Perspectives (Management Control, Benefits Management, Financial Management, Stakeholder Engagement, Risk Management, Organizational Governance, and Resource Management). The levels are: 1. Awareness of process 2. Repeatable process 3. Defined process 4. Managed process 5. Optimized process **Approach**: staged and continuous.
Berkeley Project Management Process Maturity Model (PM2) - (Fabbro & Tonchia, 2021; Eby, 2022)	The PM2 model helps organizations to improve their project management practices. Like some of the other models, it uses five different levels: 1. Ad-hoc (basic PM process).

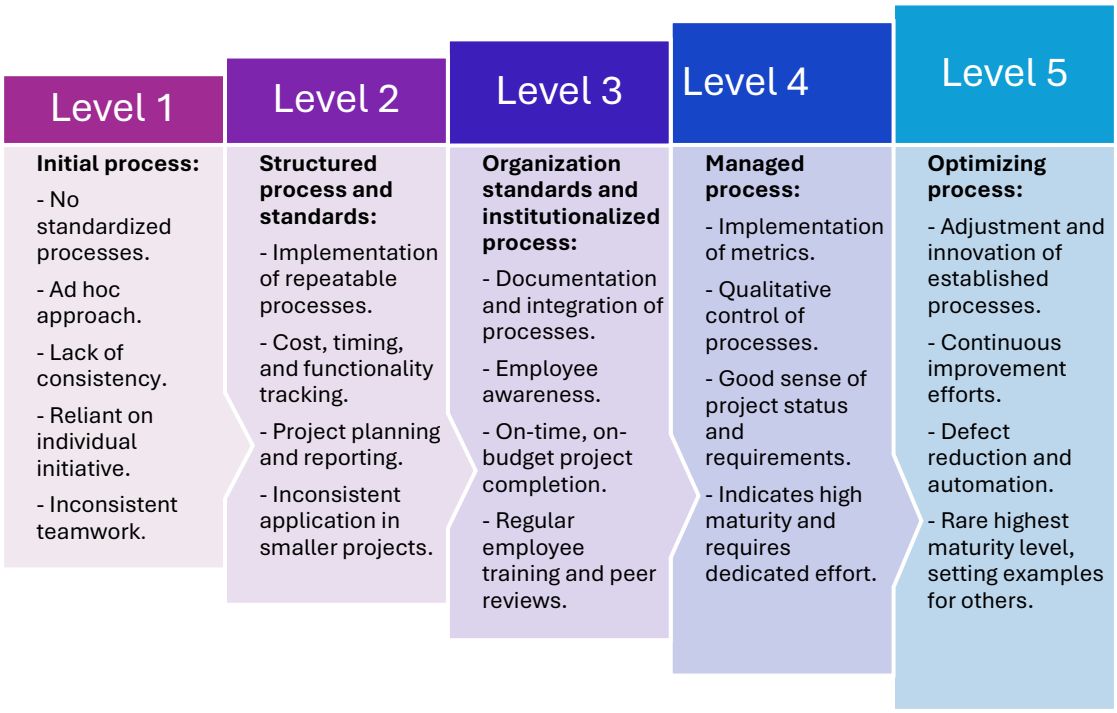
Maturity Model	Description
Developed by: Kwak and Ibbs	2. Defined (individual project planning). 3. Managed (systematic project planning and control). 4. Integrated (integrated multi-project planning and control). 5. Sustained (continuous process improvement). **Approach**: incremental.
Kerzner's Project Management Maturity Model (KPMMM) - (Fabbro & Tonchia, 2021; Eby, 2022) **Developed by:** Kerzner	The KPMMM model focuses on improving organizations maturity level through five stages: 1. Common language 2. Common process 3. Singular methodology 4. Benchmarking 5. Continuous improvement **Approach**: incremental.

Note: Own compilation from several authors (OGC, 2010; Gomes & Caldeira, 2013; Fabbro & Tonchia, 2021; Bruneaux, 2022; and Laoyan, 2022).

Based on the descriptions in Table 3, the chosen maturity model for evaluating Allyis Tech Mahindra's L&D department is the PMMM (to be explained in Chapter IV). This choice is based on how well the PMMM[SM] model fits the specific FGP objectives, and how it matches the organizational context and needs.

Figure 12

PMMMSM model



Note: Adjusted from Eby, K. (2022). *How to Choose a Project Management Maturity Model: 7 Models, Tools, and Assessments*. Smartsheet. https://www.smartsheet.com/content/project-management-maturity

2.3.2 Project Management in Instructional Design

The Association for Talent Development (ATD, 2024), dedicated to share L&D standards and best practices, defines instructional design as:

> The practice of creating learning experiences to support learning. It is a systems approach to analyzing, designing, developing, implementing, and evaluating any instructional experience based on the belief that training is most effective when it gives learners a clear statement of what they must be able to do after training and how their performance will be evaluated (What Is Instructional Design? para.1).

Project Management in this field involves planning and carrying out different types of learning/training projects, whether in academic or corporate environments. Similar to any other project, the main project management frameworks that can be used are Waterfall Project Management, Agile Project Management, and the Hybrid approach that mixes components of both methods (Evanick, 2023).

Table 4

Project Management Frameworks in Instructional Design

Framework	Description	Key Components
Waterfall Project Management (Traditional)	• Sequential and linear approach. • Includes well-defined stages. • Provides structure and clarity. • Lacks flexibility.	1. Requirements gathering and needs analysis. 2. Design and planning. 3. Development and production. 4. Testing and quality assurance. 5. Implementation and deployment. 6. Evaluation and maintenance.

Framework	Description	Key Components
Agile Project Management	• Flexible. • Collaborative. • Iterative. • Careful resource management required. • Agile methodologies such as Scrum.	1. Continuous feedback and adaptation. 2. Cross-functional teams. 3. Iterative development and delivery. 4. Incremental results. 5. Embraces change and adapts to learners' evolving needs.
Hybrid Project Management	• It balances structure and flexibility. • Combines elements from both frameworks based on the project needs. • Flexible project control.	1. Tailored planning and phases. 2. Iterative refinement within phases. 3. Collaborative decision-making. 4. Emphasizes documentation and accountability.

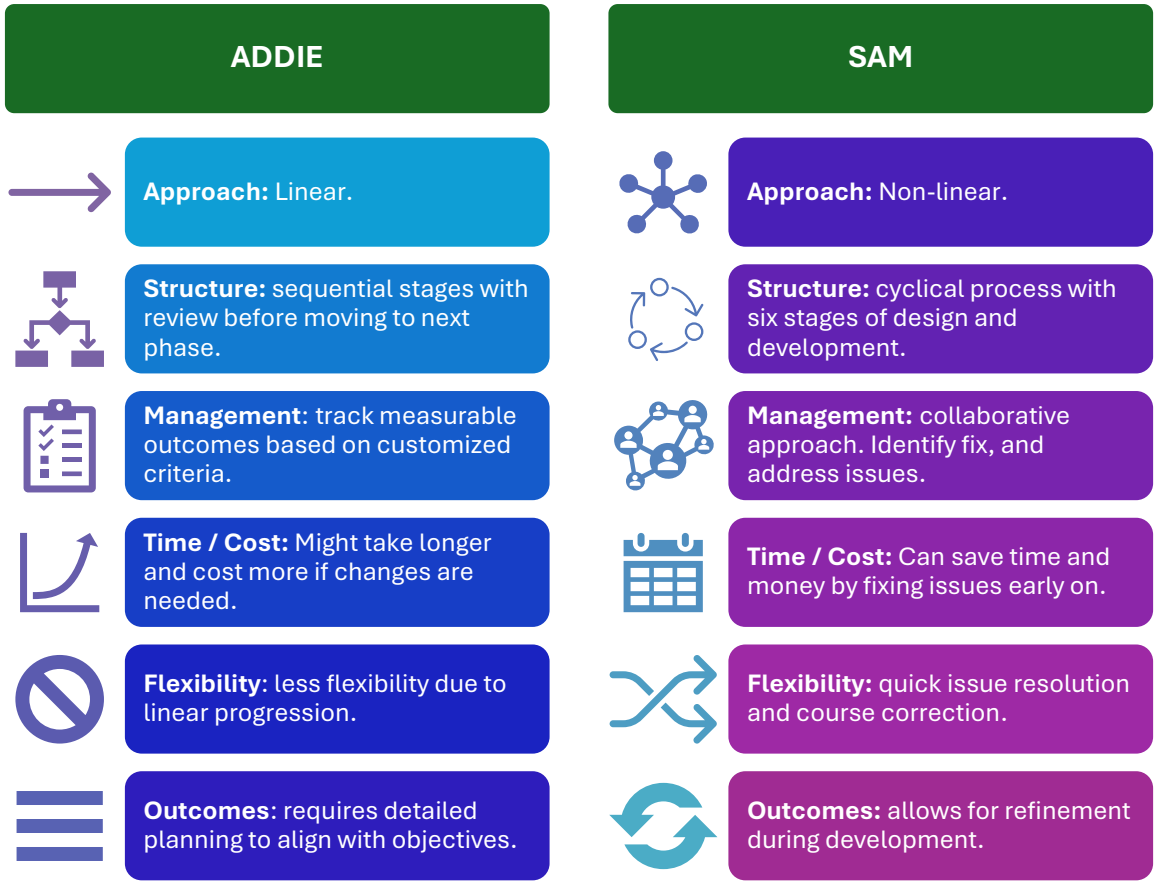
Note: Extracted and adapted from Evanick, J. (2023). *Project Management Frameworks in Instructional Design: Exploring Approaches*. eLearning Industry. https://elearningindustry.com/project-management-frameworks-in-instructional-design-exploring-approaches

To exemplify how these approaches can impact ID projects, Figure 13 shows two common ID models used to develop content:

1. **ADDIE** (Analyze, Design, Develop, Implement, Evaluate): waterfall approach.
2. **SAM** (Successive Approximations Model): agile approach.

Figure 13

ID Content Development Approaches



Note: Own creation based on Pappas, C. (2021). *ADDIE Model Vs SAM Model: Which Is Best for Your Next eLearning Project.* https://elearningindustry.com/addie-vs-sam-model-best-for-next-elearning-project

Regardless of the type of content development approach and project management framework that is used, ID projects will always need competent project managers who can create, develop, and manage timelines and budgets, define priorities and expected

outcomes, identify and mitigate risks, as well as gather stakeholder input. Through this mindset, the FGP pursues to design a PMO that adequately supports the L&D Department to enable project managers to handle their projects more efficiently through systematic, standardized, and adaptable processes.

PMOs can assist L&D teams with activities such as:

- Breaking down projects into smaller and manageable pieces with defined deadlines and ensuring top-down and bottom-up planning, while adjusting to changing needs (Torrance, 2023).
- Using technology and data management to provide governance, measure performance, manage risks, and improve project team collaboration and decision-making. Also, setting KPIs and tracking progress towards achieving project objectives (Project Management Institute, 2022).
- Improving communication between stakeholders and project teams to ensure that project goals are consistent with organizational objectives, as well as to provide ongoing training for new project managers (and other interested employees) to support new initiatives (Martins, 2024).

2.2.3 Current situation of the problem or opportunity in study

As of now, the L&D department operates without a dedicated PMO or project management repositories. The lack of a PMO has created a significant gap in the organizational structure that affects the efficiency and strategic alignment of projects within the L&D area.

Furthermore, without a centralized place for project documents, it is challenging to track, share, and implement best practices within the department initiatives. This current situation emphasizes the need of implementing a PMO to enhance project management practices and to create a more structured and organized approach to ID projects.

2.3.4 Previous research done for the topic in study

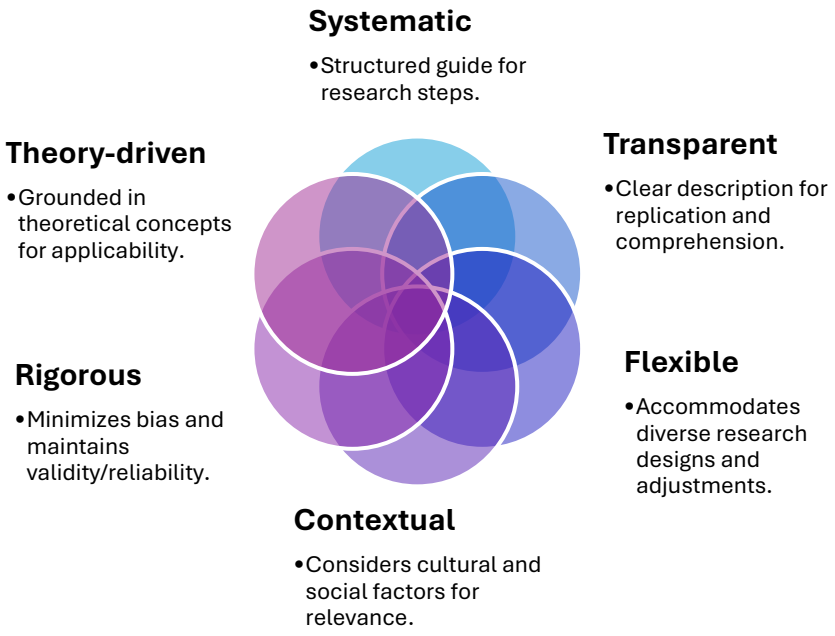
In 2022, the two primary L&D project managers initiated a project to build a PMO called ROOTS – Allyis – Tech M PMO Construction Initiative. Although the project was stopped due to time constraints and staffing limitations, the input collected serves as a starting point for the development of the current FGP proposal.

3 METHODOLOGICAL FRAMEWORK

The Methodological Framework; as defined by Hassan (2024), includes a structured set of procedures, methods, and tools that systematically guide the research process. It helps to conduct research, collect and analyze data, and ensure transparency and reliability throughout the research process (Definition section, para. 1). The following section will guide the research process for assessing the benefits and challenges of implementing a PMO within the L&D department with a specific focus on ID projects.

Figure 14

Methodological Framework Characteristics



Note: Own creation based on Hassan, M. (2024). *Methodological Framework – Types, Examples and Guide.* ResearchMethod.Net. https://researchmethod.net/methodological-framework/

3.1 Information sources

The University of Exeter (2024) states that "research material can be drawn from a wide range of different information sources, such as books, journal articles, news items, government reports, statistical or audiovisual material" (Type of information sources, para.1). These sources can be classified into different types based on their origin, purpose, format, and quality.

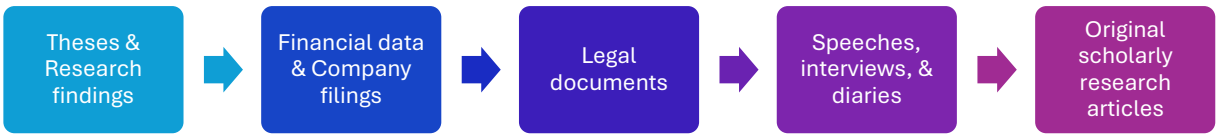
For the development of this research, it is fundamental to have access to multiple reliable sources of information to properly collect and analyze data and ultimately make informed decisions about PMO design and implementation.

3.1.1 Primary sources

Primary sources are first-hand accounts or records of activities as they occur or are created without subsequent interpretation or commentary. These sources offer direct access to original ideas, events, and data. (University of Exeter, 2024; University of Wisconsin-Stevens Point, 2023).

Figure 15

Primary Sources Examples



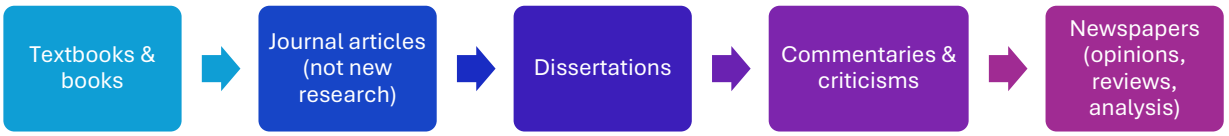
Note: Own creation based on University of Exeter. (2024). *INTO: Business Research Project - Finding & using library resources: 1. Types of Information Sources.* https://libguides.exeter.ac.uk/intobusinessproject/typesofinfo

3.1.2 Secondary sources

Secondary sources can be interpretations, commentaries, evaluations, or analyses of primary sources (or other sources). “These are typically written after the event or activity being discussed and are not based on direct observation or involvement” (University of Exeter, 2024). Instead, they are created by people who did not experience or observe the event first-hand. These type of sources provide insights, critiques, and discussions based on previous evidence, but they are not considered evidence themselves (University of Wisconsin-Stevens Point, 2023).

Figure 16

Secondary Sources Examples



Note: Own creation based on University of Exeter. (2024). *INTO: Business Research Project - Finding & using library resources: 1. Types of Information Sources.* https://libguides.exeter.ac.uk/intobusinessproject/typesofinfo

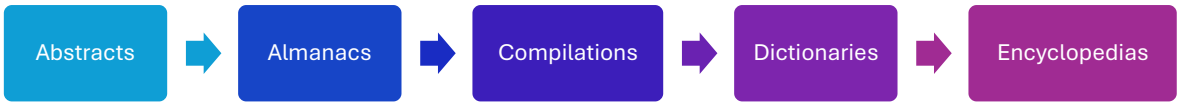
3.1.3 Tertiary Sources

Tertiary sources are resources that offer broad overviews or condensed narratives of topics. They analyze and summarize information from primary and secondary sources to

provide background information about an idea, event, or topic (University of Wisconsin-Stevens Point, n.d.).

Figure 17

Tertiary Sources Examples



Note: University of Wisconsin-Stevens Point. (n.d.). *Primary, Secondary, and Tertiary Sources of Information in the Sciences: Types of Information Sources*. Libraries. https://libraryguides.uwsp.edu/InformationSourcesInTheSciences

Table 5 details the primary, secondary, and tertiary resources used during this FGP research. These resources involve scientific publications, electronic magazines, textbooks, online resources, reports, and documentation from conferences, all of which contribute to a detailed understanding of the PMO design process.

Table 5

Information sources

Objectives	Information sources	
	Primary	**Secondary / Tertiary**
1. To assess Allyis Tech Mahindra's L&D department's current ID processes, maturity level, and departmental needs.	• Allen, S. & Gardner, J. (2021). Project Management Competencies in Instructional Design. • Odważny, F., Wojtkowiak, D., Cyplik, P., & Adamczak, M. (2019). Concept for measuring organizational maturity supporting Sustainable Development Goals. • Project Management Institute. (2017). A guide to the project management body of knowledge (PMBOK guide). 6th edition. • Project Management Institute. (2021). A guide to the project management body of knowledge (PMBOK guide) and The Standard for Project Management. 7th edition.	• Evanick, J. (2023). Project Management Frameworks in Instructional Design: Exploring Approaches. • Bruneaux, T. (2022). A beginner's guide to the business maturity model framework. • Rezvani, S. (2008). An Introduction to Organizational Maturity Assessment: Measuring Organizational Capabilities. • Laoyan, S. (July 3, 2022). A deep-dive into project management maturity models. • Eby, K. (2022). How to Choose a Project Management Maturity Model: 7 Models, Tools, and Assessments. Smartsheet.

Objectives	Information sources	
	Primary	**Secondary / Tertiary**
	• Gomes, J., Romão, M., and Caldeira, M. (2013). Linking Benefits to Maturity Models. • Kucińska-Landwójtowicz, A. (2019). Organizational Maturity Models – Review and Classification. • Interviews with Lead Instructional Designer Manager, Technical Skilling and Onboarding Manager, Project Managers, Human Resources, Legal Department, Instructional Designers	
2. To analyze different PMO types to establish the most appropriate PMO model for Allyis Tech Mahindra's L&D department.	• Project Management Institute. (2017). A guide to the project management body of knowledge (PMBOK guide). 6th edition. • Project Management Institute. (2021). A guide to the project management body of knowledge (PMBOK guide) and The Standard for Project Management. 7th edition.	• Martins, J. (2024). What is a project management office (PMO)?

Objectives	Information sources	
	Primary	**Secondary / Tertiary**
	• Project Management Institute (2013). Strategic Initiative Management: The PMO Imperative. • Project Management Institute (2013). The Impact of PMOs on Strategy Implementation.	
3. To identify the main characteristics, functions, roles, and responsibilities that the Allyis Tech Mahindra's L&D department's PMO should have.	• Project Management Institute. (2017). A guide to the project management body of knowledge (PMBOK guide). 6th edition. • Project Management Institute. (2021). A guide to the project management body of knowledge (PMBOK guide) and The Standard for Project Management. 7th edition. • Project Management Institute (2013). Strategic Initiative Management: The PMO Imperative. • Project Management Institute (2013). The Impact of PMOs on Strategy Implementation.	• Martins, J. (2024). What is a project management office (PMO)? • Pinto, G. O., Mello, L. C. B. B., & Spiegel, T. (2019). Best practices in implementing a project management office: a systematic review of the literature.

Objectives	Information sources	
	Primary	**Secondary / Tertiary**
4. To evaluate the expected benefits and challenges of the implementation of the PMO to determine expected results.	• Project Management Institute. (2017). A guide to the project management body of knowledge (PMBOK guide). 6th edition. • Project Management Institute. (2021). A guide to the project management body of knowledge (PMBOK guide) and The Standard for Project Management. 7th edition. • Atanasijević, S., Atanasijević, T., Janković, V. & Zahar, M. (2019). Application of e-learning technology in corporate education - Case study of Comtrade's PMO Educt portal. • Pirotti, A., Rahim, F. A. M., & Zakaria, N. (2021). Implementation of Project Management Standards and Project Success: The Mediating Role of the Project Management Office.	• Martins, J. (2024). What is a project management office (PMO)?

Objectives	Information sources	
	Primary	**Secondary / Tertiary**
	• Silvius, G. (2021). The role of the Project Management Office in Sustainable Project Management. • Project Management Institute (2013). Strategic Initiative Management: The PMO Imperative. • Project Management Institute (2013). The Impact of PMOs on Strategy Implementation. • Interviews with Lead Instructional Designer Manager, Technical Skilling and Onboarding Manager, Project Managers, Human Resources, Legal Department, Instructional Designers	
5. To compile communication considerations required for the introduction of the PMO within Allyis Tech Mahindra's L&D department.	• Project Management Institute. (2017). A guide to the project management body of knowledge (PMBOK guide). 6th edition. • Project Management Institute. (2021). A guide to the project management body of knowledge (PMBOK guide) and The	• Sanderson, B., De Toledo, J.C., & Da Silva, I. (2019). The Effect of Stakeholders' Satisfaction and Project Management Performance on Transitions in a Project Management Office.

Objectives	Information sources	
	Primary	**Secondary / Tertiary**
	Standard for Project Management. 7th edition. • Project Management Institute (2013). Strategic Initiative Management: The PMO Imperative. • Project Management Institute (2013). The Impact of PMOs on Strategy Implementation. • Interviews with Lead Instructional Designer Manager, Technical Skilling and Onboarding Manager, Project Managers, Human Resources, Legal Department, Instructional Designers	

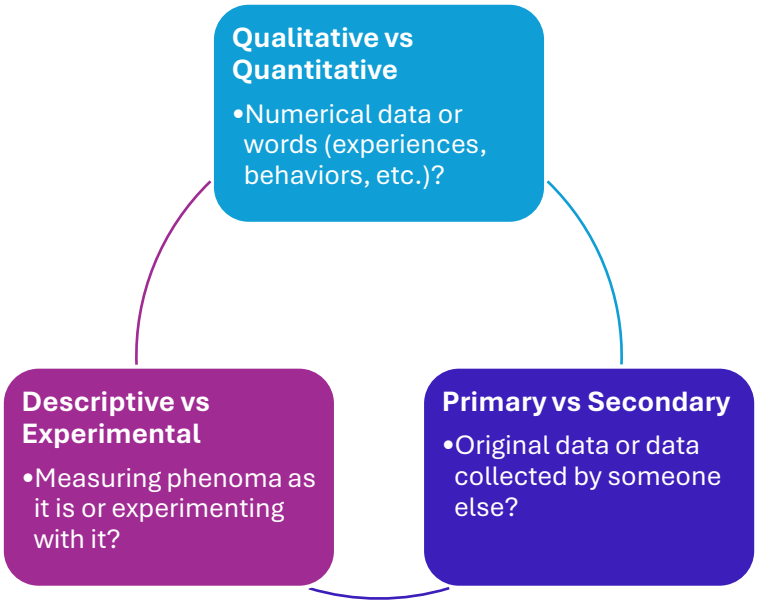
Note: Own creation.

3.2 Research methods

Research methods involve “the strategies, processes or techniques for collecting and analyzing data” (University of Newcastle Library Guides, 2023, What are research methods section, para 1.), designed to fit the research question being addressed. Determining the appropriate method depends on factors such as whether the data will be qualitative or quantitative, primary or secondary, and descriptive or experimental in nature (McCombes, 2019).

Figure 18

Research Method Selection



Note: Own creation based on McCombes, S. (2019). *Types of Research Designs Compared | Guide & Examples.* Scribbr. https://www.scribbr.com/methodology/types-of-research/

3.2.1 Quantitative Research

The quantitative research method collects and analyzes “numerical data, which can be ranked, measured, or categorized through statistical analysis” (University of Newcastle Library Guides, 2023, Types of research section, Quantitative Research tab). It can be used to test hypotheses, discover patterns/relationships, and make conclusions about the subject under study. Data can be collected through surveys, experiments, or other quantitative methods to enable researchers to investigate questions related to how many, how much, how often, or to what extent (Hassan, 2024, Quantitative Research Framework section).

3.2.2 Qualitative Research

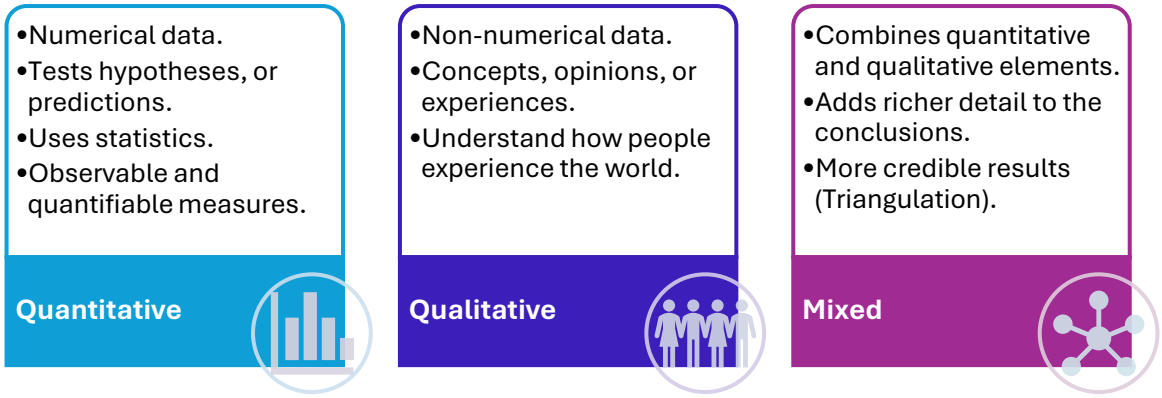
The qualitative research method gathers non-numerical data through methods like interviews, observation, and document analysis to explore lived experiences, emotions, behaviors, and their associated meanings. It helps to understand complex concepts, social interactions, and cultural phenomena by examining how and why things occur. This approach involves open-ended questions and in-depth analysis to interpret events and describe actions (Hassan, 2024, Qualitative Research Framework section; University of Newcastle Library Guides, 2023, Types of research section, Qualitative Research tab).

3.2.3 Mixed Research

Mixed research integrates both qualitative and quantitative research methods. “It involves collecting both numerical and non-numerical data and using statistical analysis along with interpretive techniques to analyze the data” (Hassan, 2024). It enables triangulation or verification of data from two or more sources (University of Newcastle Library Guides, 2023, Types of research section, Mixed Methods Research tab).

Figure 19

Research Methods



Note: Own creation based on University of Newcastle Library Guides. (2023). *Research Methods: What are research methods?* https://libguides.newcastle.edu.au/researchmethods

The FGP will primarily explore project management and PMO theory, alongside examine some implementation examples. Data collection and analysis will primarily comprise interviews and review of existing literature (Table 5). The following research methods (Table 6) are proposed to support the creation of a customized PMO design to address the specific requirements of the L&D department.

Table 6

Research methods

Objectives	Quantitative	Qualitative
1. To assess Allyis Tech Mahindra's L&D department's current ID processes, maturity level, and departmental needs.	• Survey the L&D department employees to gather data on perceptions of current ID processes and maturity level.	• Conduct interviews to the L&D department employees to understand current ID processes and departmental needs.
2. To analyze different PMO types to establish the most appropriate PMO model for Allyis Tech Mahindra's L&D department.	• Collect industry data on PMO performance to compare different models and determine suitability.	• Review literature on PMO models to understand their characteristics and suitability.
3. To identify the main characteristics, functions, roles, and responsibilities that the Allyis Tech Mahindra's L&D department's PMO should have.	• Implement a survey to assess the importance of PMO characteristics and roles.	• Conduct focus groups with the L&D employees and key members to define PMO characteristics, functions, roles, and responsibilities.
4. To evaluate the expected benefits and challenges of the implementation of the PMO to determine expected results.	• Develop KPIs for project success and stakeholder satisfaction.	• Conduct interviews with stakeholders to identify potential benefits and challenges associated with the proposed PMO design.

Objectives	Quantitative	Qualitative
5. To compile communication considerations required for the introduction of the PMO within Allyis Tech Mahindra's L&D department.	• Survey employees to understand readiness for change and preferred communication channels.	• Hold focus groups to gather input on communication strategies and potential concerns.

Note: Own creation based on Streefkerk, R. (2019). *Qualitative vs. Quantitative Research | Differences, Examples & Methods*. Scribbr. https://www.scribbr.com/methodology/qualitative-quantitative-research/

3.3 Tools

Data collection tools (or techniques) are used to gather information during research activities. These tools vary based on the research method being followed (quantitative, qualitative, mixed) (Sreekumar, 2023, What are data collection methods? section). The PMI (2017) groups the different tools and techniques in different categories: data gathering, data analysis, data representation, decision-making, communication skills, interpersonal and team skills with an additional 59 tools and techniques uncategorized. Figure 20 presents some tools and techniques examples.

Figure 20

PMI's Tools and Techniques Categorization

Data Gathering	Benchmarking, Brainstorming, Check sheets, Checklists, Focus groups, Interviews, Questionnaires and surveys.
Data Analysis	Assumption and constraint analysis, Cost of quality, Cost-benefit analysis, Performance reviews, Root cause analysis, SWOT analysis.
Data Representation	Cause-and-effect diagrams, Mind mapping, Stakeholder mapping/representation, Flowcharts.
Decision-making	Multicriteria decision analysis, Voting, and Autocratic decision making.
Communication Skills	Communication competence, Feedback, Presentations.
Interpersonal and Team Skills	Active listening, Cultural awareness, Influencing, Meeting management, Team building, Leadership.
Ungrouped	Agile release planning, audits, contingent response strategies, decomposition, design for X, Leads and Lags.

Note: Own creation based on Project Management Institute. (2017). *A guide to the project management body of knowledge (PMBOK guide)*. 6th edition. ISBN: 978-1-62825-184-5

Table 7

Data Collection Tools

Objective	Tools
1. To assess Allyis Tech Mahindra's L&D department's current ID processes, maturity level, and departmental needs.	• Interviews with the management and leadership teams to gather their opinions and perspectives; performance reviews. • Review Allyis Tech Mahindra's existing documents and other literature to understand their current ID practices. • Facilitate discussions with a small group of employees from the L&D Department to collect their opinions and experiences (focus group and brainstorming). • Implement surveys to collect quantitative data from participants.
2. To analyze different PMO types to establish the most appropriate PMO model for Allyis Tech Mahindra's L&D department.	• Review existing documentation and reports on PMO models (case studies); select samples from organizations with established PMOs. • Gather insights and opinions on different PMO models (focus group and brainstorming). • Implement surveys to project management experts to collect quantitative data on the expected PMO effectiveness; proposal evaluation.
3. To identify the main characteristics, functions, roles, and responsibilities that the Allyis Tech Mahindra's L&D department's PMO should have.	• Gather opinions and considerations from key stakeholders on PMO requirements. • Facilitate discussions to explore perspectives on PMO characteristics, functions, roles, and responsibilities (focus group and brainstorming). • Collect structured data to understand specific requirements and expectations (interviews). • Analyze existing documents and reports for insights.

Objective	Tools
	• Implement surveys to stakeholders to collect quantitative data on PMO expectations.
4. To evaluate the expected benefits and challenges of the implementation of the PMO to determine expected results.	• Facilitate discussions to identify potential benefits and challenges of PMO implementation (focus group and brainstorming); collect structured data to assess expected benefits and challenges (interviews). • Implement surveys to stakeholders to gather quantitative data on expected benefits and challenges.
5. To compile communication considerations required for the introduction of the PMO within Allyis Tech Mahindra's L&D department.	• Facilitate discussions to gather input on communication strategies and concerns regarding PMO implementation (focus group and brainstorming). • Collect structured data to assess stakeholder readiness and communication preferences (interviews). • Observe communication dynamics and practices within the organization (nonverbal and feedback). • Analyze existing communication materials and strategies. • Implement surveys to stakeholders to collect quantitative data on communication preferences; voting.

Note: Own creation based on Figure 20, Table 6.

3.4 Assumptions and constraints

The PMI defines an assumption as, “a factor in the planning process that is considered to be true, real, or certain, without proof or demonstration” (2017, p.699). While “project constraints are the general limitations of a project, including time, costs, and risks” (Asana, 2022, para.1). The assumptions and constraints considered for this FGP are, but not limited to, the following:

Table 8

Assumptions and Constraints

Objectives	Assumptions	Constraints
1. To assess Allyis Tech Mahindra's L&D department's current ID processes, maturity level, and departmental needs.	• Relevant stakeholders within Allyis Tech Mahindra's L&D department will support the establishment of the PMO. • The necessary resources will be available to develop and implement the PMO proposal. • Employees in the L&D department are open to organizational change, training, and development initiatives related to the PMO establishment.	• The project is to be developed by a single person (student), creating limitations in terms of available expertise, workload, and capacity. • Limited time available from participants for surveys, interviews, focus groups due to heavy workload within the L&D team.
2. To analyze different PMO types to establish the most appropriate PMO model for Allyis Tech Mahindra's L&D department.	• Available documentation and resources (reports, articles, etc.) will provide enough information about PMO models.	• Limited response from management and leadership team may affect data gathering. • Lack of consistency among gathered data that may impact the accuracy of the information.

Objectives	Assumptions	Constraints
3. To identify the main characteristics, functions, roles, and responsibilities that the Allyis Tech Mahindra's L&D department's PMO should have.	• Stakeholders will participate in discussions (focus groups, brainstorming sessions, etc.) to identify the main characteristics, functions, roles, and responsibilities of the proposed PMO. • Relevant documentation and resources will be accessible to support the identification process.	• Existing roles and dynamics may represent challenges in defining PMO roles and responsibilities. • Potential resistance to change (L&D's employees or the client).
4. To evaluate the expected benefits and challenges of the implementation of the PMO to determine expected results.	• Stakeholders will provide honest feedback during interviews regarding potential benefits and challenges associated with the proposed PMO design.	• The anticipated results may not align with the actual outcomes once the PMO is implemented.
5. To compile communication considerations required for the introduction of the PMO within Allyis Tech Mahindra's L&D department.	• Stakeholders will participate in communication strategy discussions. • Necessary resources and support will be available to design and implement communication strategy.	• Lack of consistency among gathered data may impact the proposal of communication strategies.

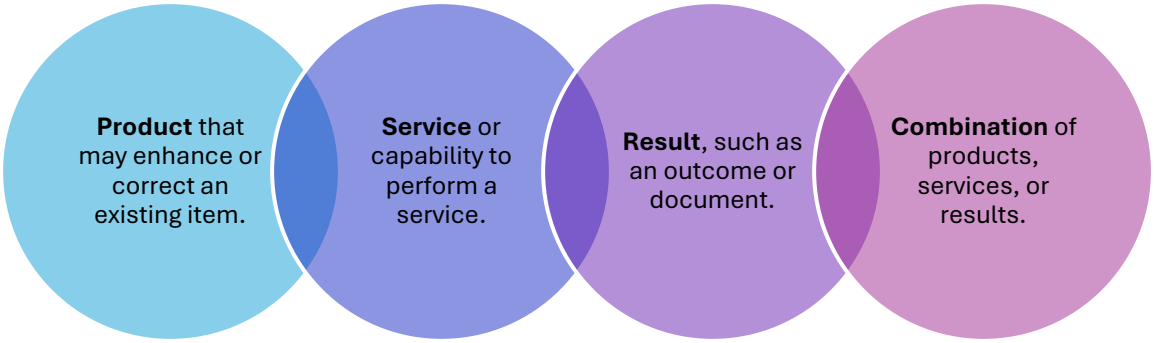
Note: Own creation.

3.5 Deliverables

A deliverable refers to “a unique and verifiable product, result, or capability to perform a service that is required to be produced to complete a process, phase, or project” (PMI, 2017, p. 4).

Figure 21

Type of Deliverables



Note: Own creation based on Project Management Institute. (2017). *A guide to the project management body of knowledge (PMBOK guide)*. 6th edition. ISBN: 978-1-62825-184-5

Table 9

FGP Deliverables

Objectives	Deliverables
1. To assess Allyis Tech Mahindra's L&D department's current ID processes, maturity level, and departmental needs.	**L&D Department Assessment: Current Processes, Maturity, and Needs Review:** • ID methodologies, processes, and resources. • L&D Department maturity level. • Suggestions for improvement and desired support resources.
2. To analyze different PMO types to establish the most appropriate PMO model for Allyis Tech Mahindra's L&D department.	**PMO Types Analysis: Comparing Models for the L&D Department:** • PMO models and structures. • PMO functions, roles, and responsibilities.
3. To identify the main characteristics, functions, roles, and responsibilities that the Allyis Tech Mahindra's L&D department's PMO should have.	**L&D Department PMO Design Proposal:** • Leadership team perspective and L&D team members feedback. • PMO Mission and Vision. • PMO Type selection. • Structure, staffing, and main functions/responsibilities.
4. To evaluate the expected benefits and challenges of the implementation of the PMO to determine expected results.	**PMO Implementation Analysis: expected benefits and challenges:** • Expected benefits and challenges. • Important factors for a successful implementation. • Required resources and support.
5. To compile communication considerations required for the	**PMO Introduction Communication Considerations:**

Objectives	Deliverables
introduction of the PMO within Allyis Tech Mahindra's L&D department.	• Current communication satisfaction. • High-level communication strategy based on L&D team members input. • Preferred communication channels. • Key messages to be communicated.

Note: Own creation based on FGP's scope and objectives.

4 RESULTS

4.1 L&D Department Assessment: current processes, maturity, and needs review

This section presents the results of the research assessment that was done on the L&D department. The information was gathered through interviews with management and leadership, performance reviews, documents and literature analysis, L&D team members discussions, and surveys. The findings are organized into three sections:

1. **Current ID practices:** ID methodologies, processes, and resources currently used within the L&D department.
2. **Maturity Analysis:** analysis of the maturity level of the L&D department (not the entire company). It evaluates how well the department follows project management practices, standards, and how effective its ID processes are.
3. **Departmental Needs:** IDs perceptions, gaps and growth opportunities to improve the L&D department's overall effectiveness in providing learning and training solutions.

4.1.1 Current ID practices

The review of documentation involved the analysis of four different sources (all company internal documents):

- **ID Book of Work (2020) –** folders and subfolders with different types of documents (Word, Excel, PPTs, etc.) located in a SharePoint (no longer used as an official location).

- **Service Catalog Support Request Process flow - MICROSERVICES (2023) –** Word file managed by the Lead ID Manager, the TSO Lead and some of the stakeholders.
- **Cloud Academy Issue Escalation Process flow (2023) –** same as above.
- **L&D Project Process Mapping (2023)** – Visio file located in a SharePoint (in use).

4.1.1.1 ID Book of Work

Based on this source, it was identified that the L&D team primarily follows the ADDIE model (Figure 13). It is important to mention that the ID Book of Work; while providing a strong foundation for creating ID content, it has documents and processes that are outdated and there is no one responsible for updating them (at least not officially).

It is divided into seven folders including the overall ID process, tools and support links, analysis phase templates and guidelines (timeline, ID-SME communication, learning needs analysis, project plan, storyboard and outline), design guides (blended learning, content writing, writing performance objectives, recording demos, and peer review), development templates and guides (story files, writing scenarios, and knowledge measure and assessments), implementation guides (compliance and accessibility, publishing, and learning path templates), and evaluation guides (evaluating performance and rubrics).

The main goal of these guidelines is that IDs can understand business and learner needs before creating learning materials. They define six major ID responsibilities:

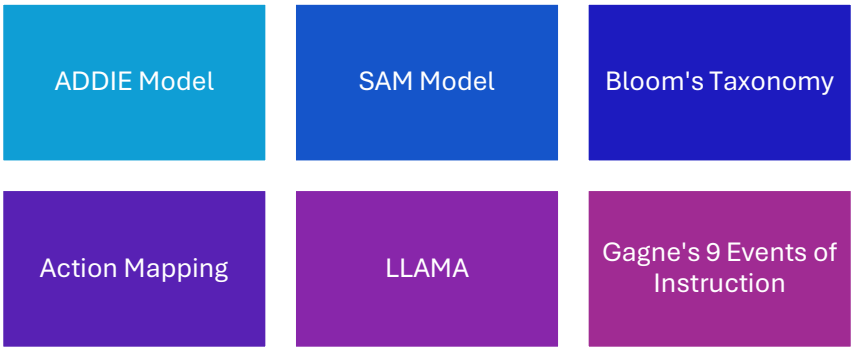
1. Working with SMEs.
2. Developing objectives.

3. Reviewing and structuring content.
4. Creating media (demos, simulations, etc.).
5. Developing assessments.

The methodology it proposes includes tasks like defining course timelines, completing task analysis, creating course outlines, integrating feedback, and finalizing materials for publishing.

Figure 22

Common ID Models used in the L&D Department



Note: Own creation based on Allyis. (2020). *ID Book of Work*. Unpublished internal company document.

4.1.1.2 Service Catalog Support Request Process flow - MICROSERVICES

This document explains the process for requesting microservices within the Service Catalog. As reviewed in Chapter II, these microservices encompass services such as accessibility, security and compliance checks, animation video creation, closed captioning, creative arts and graphics, success factors to CA bulk migration, and video editing. Table 8 lists the main ID practices that were identified as part of this process.

Table 10

MICROSERVICES ID Practices

Phase	ID Practices
Analysis and scoping	• Analyze microservices requests to determine scope and requirements. • Scope tasks and allocate resources accordingly. • Roles involved: Lead ID Manager, PM, BPM.
Planning	• Design terms and timelines with stakeholders. • Plan task assignments for execution. • Roles involved: Lead ID Manager, PM, BPM.
Designing	• Plan content requirements and design. • Work on storyboards and prototypes. • Roles involved: Lead IDs, IDs.
Executing and delivering	• Execute tasks according to plan. • Deliver completed microservices as per agreement. • Roles involved: Lead IDs and IDs.
Communicating	• Communicate progress and updates to stakeholders. • Roles involved: all.

Note: Own creation based on Allyis Tech Mahindra. (2023*). Service Catalog Support Request Process flow*. Unpublished internal company document.

4.1.1.3 Cloud Academy Issue Escalation Process flow

This document defines the process for creating and handling issue work items related to trainings published in Cloud Academy (CA Issues). It contains steps for categorizing and resolving CA issues, such as "*fixing by the BPM*," "*sending back to*

Customer Support Services for additional information," or "*fixing by the development team*". Table 11 lists the main ID practices that were identified as part of this process.

Table 11

CA Issues ID Practices

ID Practices	Description
Categorization and prioritization	• Categorize issues based on severity and impact. • Prioritize tasks for the appropriate resolution. • Role involved: Lead ID Manager.
Issue resolution	• Determine the appropriate actions to resolve the issue. • Roles involved: Lead ID Manager, Lead ID, BPM.
Communication	• Communicate issue status and updates among stakeholders. • Roles involved: Lead ID Manager, Lead ID, IDs, BPM.
Process Improvement	• Improve the escalation process based on feedback. • Roles involved: Lead ID Manager, BPM.

Note: Own creation based on Allyis Tech Mahindra. (2023). *Cloud Academy Issue Escalation Process flow.* Unpublished internal company document.

4.1.1.4 L&D Project Process Mapping

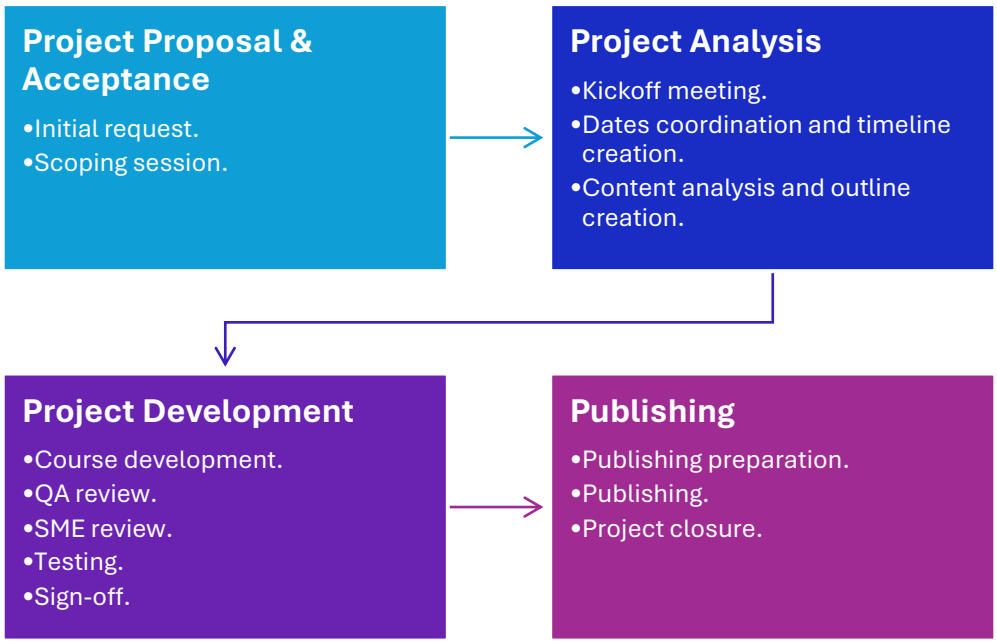
The Visio process map outlines the L&D process divided into four main stages:

1. Project Proposal & Acceptance
2. Project Analysis
3. Project Development
4. Publishing

There are defined roles involved throughout the process: BPM and Stakeholders (client), Lead ID Manager, Project Manager, Lead ID, IDs, and SMEs. Figure 23 shows the L&D process' main stages and steps:

Figure 23

L&D Project Process Mapping

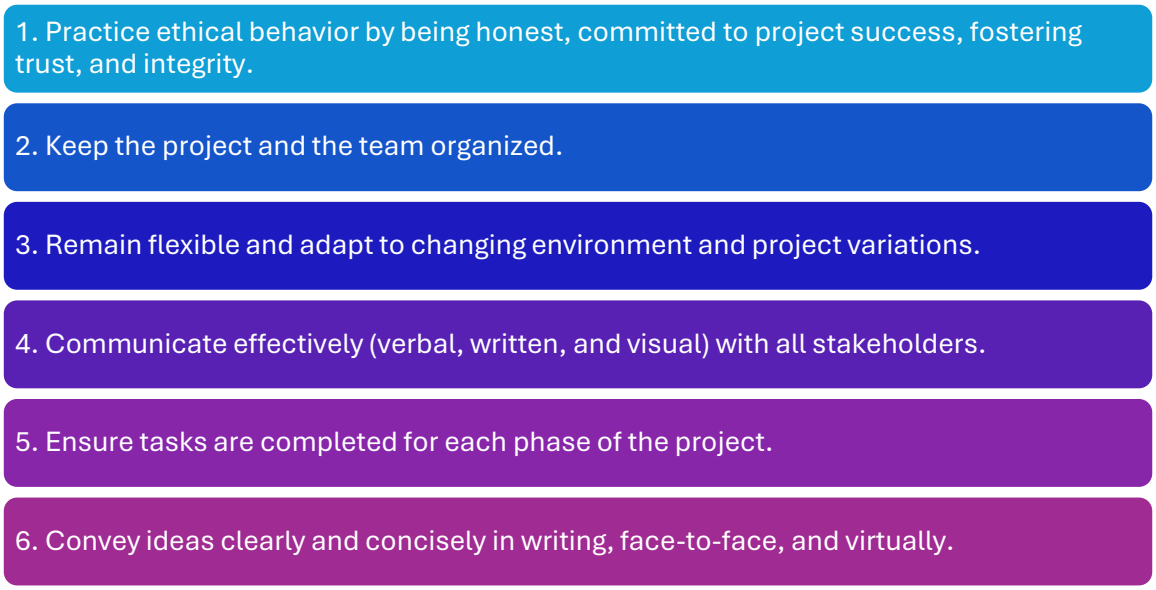


Note: Own creation based on Allyis Tech Mahindra. (2023). *L&D Project Process Mapping*. Unpublished internal company document.

These L&D team's processes were analyzed by referencing the six project management competencies defined by Allen & Gardner (2021) and the project management frameworks in instructional design presented by Evanick (2023):

Figure 24

Project Management Competencies



Note: Extracted from Allen, S. & Gardner, J. (2021). Project Management Competencies in Instructional Design. *Online Journal of Distance Learning Administration*, XXIV (2). University of West Georgia, Distance Education Center. https://ojdla.com/assets/pdf/allen_gardner242.pdf

Based on the interviews and focus groups (Appendix 5) with the leadership and management team (Lead ID Manager, Lead IDs, and PMs) conducted during the months of February and March 2024, it is evident that they recognize the need of creating a strategy to strengthen the L&D team processes and practices. They have been gathering information to understand the current needs and gaps, clarify roles, responsibilities, and expectations, and

update project management and instructional design materials (which has taken a lot of time).

The main challenge regarding the existing documentation is that it is outdated. The team's current review shows an ethical practice, which reflects their dedication to improving the overall ID process to achieve project goals and build trust within the team. While there are established processes and communication channels, it appears that there is a lack of standardization, as stated by one of the project managers.

These processes definitely serve as a starting point, but they are often adapted based on the specifics of each project and the experience level of the project team, which means that the team has to constantly adapt to different work methods and processes, impacting on the organization of the project. Both project managers agreed that they try to establish guidelines for organization from the outset; however, this area can still be improved as it consumes considerable time at the beginning of each project. This dynamic reflects the L&D team's current ability to adapt and be flexible to changes or lack of clarity to highlight organizational skills.

There is a fundamental commitment to completing established tasks with a high level of quality and meeting client expectations. Additionally, roles and responsibilities are defined for each phase to ensure accountability for tasks and phases completion.

Regarding communication, multiple practices, primarily progress updates and issue resolution are established based on the different project scenarios and stakeholder preferences. Since the team works remotely, communication mainly occurs in written and virtual forms (email and Microsoft Teams channel). However, when Tech Mahindra’s

senior management visits the Costa Rica office, face-to-face communication always happens in a professional, effective, and satisfactory way.

Interviewees and participants in focus groups affirm that the main challenge is finding official time to improve processes, as the workload is high, and each person's availability varies. It is not always possible to find common spaces, considering the remote working modality. Table 12 compares the main tasks or approaches within the project management frameworks proposed by Evanick (2023) with what is currently implemented and what is not in the L&D department.

Table 12

Project Management Frameworks compared to L&D Current ID Practices

Framework	Common ID tasks (Evanick, 2023)	Currently doing (L&D Dept.)	Missing (L&D Dept.)
Waterfall – *sequential planning and execution*	• Define project objectives, identify learner needs, and establish clear deliverables. • Create a blueprint and detailed plans for content development. • Execute the plans defined in the design phase. • Perform systematic reviews, test scenarios, and verify processes. • Coordinate the delivery of the materials, gather feedback, and assess required adjustments.	• Systematic process: Microservices, CA Issues, and BEACON requests. • Scoping sessions with the BPM and relevant stakeholders (client). • Following ADDIE model, except for the Evaluation stage. • Templates and guides available in the ID Book of Work. • Assessing overall ID process, roles, and responsibilities.	• There is a need to reinforce existing processes and departmental calibration. • Lack of consistency in creating detailed blueprints/design plans. • Lack of detailed post-implementation analysis (metrics). • Lack of clear responsibility for updating outdated materials and files repository.
Agile – *flexible and iterative development*	• Short iterations and iterative development (sprints), tasks prioritization and incremental deliveries (i.e.: Scrum). • Continuous feedback and adaptation, stakeholders'	• Iterative refinement and continuous feedback through weekly meetings, peer and QA reviews, as well as SME/BPM reviews. • Project backlog prioritization and issue resolution.	• There is no explicit implementation of agile methodologies. • Although the ADDIE model is used, there is no evidence of using SAM (agile model).

Framework	Common ID tasks (Evanick, 2023)	Currently doing (L&D Dept.)	Missing (L&D Dept.)
	engagement, progress reviews, and iterative refinements. • Cross-functional teams combining diverse expertise. • Adapt to emerging requirements and address challenges.	• Changes embraced and addressed as they emerge. • Frequent communication across teams (both internal and external).	• Lack of Change Requests records or tracking. • There is a need to promote self-sufficiency and initiative in the IDs.
Hybrid – *combined*	• Customize the planning and execution phases based on the project's requirements. • Iterative refinement within individual phases, ongoing feedback , and adjustment. • Flexible project control allowing adjustments based on feedback and changing circumstances. • Clear documentation of project plans, milestones, and deliverables to ensure transparency and effective communication.	• On a practical level, this is the approach that is most used. • Phases are adjusted based on project requirements (but not as a result of the planning stage). • Stakeholders are involved in the feedback process and in the decision-making process at all times. • Internal communication (Lead ID Manager, PMs and Lead IDs) is constant and clear to be able to adjust to the client's needs.	• Lack of clarity and definition as to what framework is used. • Lack of clarity that leads to scope creep, timeline extensions, or resources allocation. • Since there are so many changes and diversity in stakeholders' preferences, it becomes complex to manage a specific type of documentation/reporting across teams and projects.

Note: Own creation based on Evanick (2023) and research results.

4.1.2 Maturity Level Analysis

As reviewed in Chapter II, companies use maturity assessment models to understand their own performance, recognize their strengths and weaknesses, and determine how mature they are in order to improve and create action plans. This analysis can be performed once or twice a year to check if there is improvement or not (Bruneaux, 2022; Eby, 2022).

It is imperative to note that conducting a maturity analysis usually requires trained experts in project management consulting. Considering this, the FGP proposes a self-assessment based on the PMMM[SM], which considers the PMI's PMBOK knowledge areas. Specifically, it uses a "matrix with five columns across that indicates maturity levels, and ten rows down to indicate knowledge areas" (Laoyan, 2022).

As summarized in Figure 12 (section 2.3.1), these five levels are:

1. Initial process
2. Structured process and standards
3. Organization standards and institutionalized process
4. Managed process
5. Optimizing process

This section presents the results of the Maturity Analysis survey (Appendix 7) conducted within the L&D team. The survey was created using Google Forms (Appendix 6) and distributed to the main management team members within the Costa Rica office, including two Project Managers, one Lead ID manager, and the MSA Lead (TSO Lead). Unfortunately, due to scheduling constraints, the MSA Lead was unable to participate in the survey.

Table 13

Maturity Assessment Survey Results

Knowledge Area	Level identified by the participants			
	Participant 1	**Participant 2**	**Participant 3**	**Average**
Project Integration Management	2	2	3	2.33
Project Scope Management	1	2	5	2.67
Project Schedule Management	2	2	3	2.33
Project Cost Management	1	1	1	1
Project Quality Management	2	3	2	2.33
Project Resource Management	2	3	4	3
Project Communications Management	2	3	5	3.33
Project Risk Management	1	2	4	2.33
Project Procurement Management	1	1	3	1.67
Project Stakeholder Management	2	3	5	3.33

Note: Own creation based on the Maturity Assessment Survey results.

To assess the maturity level across the L&D department, the average maturity level for each of the ten knowledge areas was calculated. This required adding up the maturity

levels reported by the participants and then dividing the total (24.33) by 10 to obtain the overall score, which is 2.4 (Level 2, progressing to Level 3).

Based on these results, it was possible to identify that there are some areas where there is a consensus on the maturity level, such as Integration, Schedule, And Quality Management, where structured processes (Level 2) are recognized. However, there are also areas of inconsistency and lack of consensus, mainly in Scope, Resource, Communications, Risk, and Stakeholder Management. This implies that; although some knowledge areas have consistent processes, there is an opportunity for improving the level of standardization throughout the L&D department. Furthermore, participants agree that Project Cost Management and Project Procurement Management are at an initial stage (Level 1) lacking of structure and standards.

The different perceptions among team members and differences in levels definitely show a gap in agreement and inconsistent practices within the department, which in turn highlights the need of a more consistent and unified way of managing projects. In this regard, a PMO can assist with these issues as it provides centralized guidance, monitoring, and consistency of project management procedures.

Figure 25

PMO practices to increase L&D Department's level of Maturity

Note: Own creation.

4.1.3 Departmental Needs

As mentioned in prior sections, the focus of this project is on the Costa Rica office, which includes a Lead ID manager, 2 PMs, 3 Lead IDs, and 21 IDs. There is also a corresponding L&D team located in India consisting of 14 IDs, 3 Lead IDs, and a Lead ID manager, but no PMs are present there. Part of the (future) proposal of this FGP is to establish a PMO in Costa Rica and later expand its operations to cover the India L&D team.

Out of the 21 IDs in Costa Rica, 11 were selected for filling out the surveys, and taking part in the interviews and focus groups (Appendix 5). This selective participation ensured that the views and opinions of a representative part of the team were gathered during the process. Based on the data collected, the following processes, practices, and perceptions were identified:

Table 14

L&D team's self-perception of their responsibilities

Category	Activities
1. Course design and development	• Creating compelling learning activities, courses, and programs. • Transforming training content into eLearning format. • Developing instructional materials, including multimedia content. • Designing engaging learning experiences. • Reviewing and updating training assessments. • Creating courses from scratch or updating existing ones
2. Communication and collaboration	• Interpreting client needs regarding course content. • Maintaining communication with SMEs, BPMs, and stakeholders.

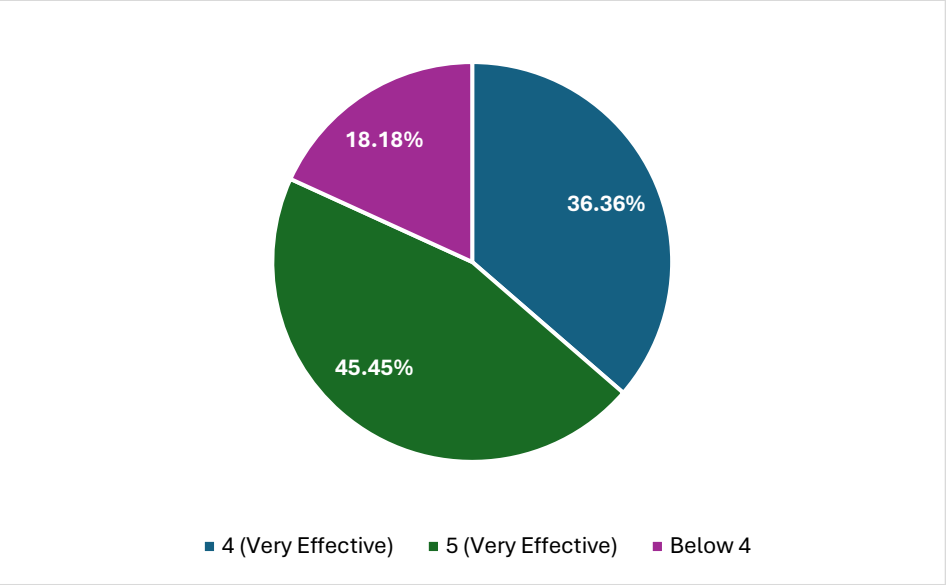
Category	Activities
	• Providing advisory services throughout the development process. • Implementing a learning strategy and applying feedback from SMEs. • Reporting project status, completing tasks on time, and attending meetings.
3. Technical skills	• Editing images, videos, and creating simulations. • Using authoring tools like Storyline 360, Rise 360, and PowerPoint. • Utilizing image/video editing tools such as Snagit, Camtasia, and Adobe Illustrator. • Utilizing collaborative platforms (Azure DevOps, Teams).
4. Quality assurance and review	• Reviewing courses to maintain quality standards. • Analyzing training needs, designing effective programs, and creating assessments. • Collaborating with SMEs to ensure accuracy and relevance of content. • Keeping up to date with trends in virtual education in corporate environments.

Note: Own creation. Data collected from ID processes interviews and focus groups.

Based on the participants' responses, it is possible to state that there is coherence with the processes identified and established in the reviewed documentation (section 4.1.1.). It then becomes instrumental to determine the effectiveness of the project management processes and support received to establish specific departmental needs.

Figure 26

Effectiveness of Current ID Processes



Note: Own creation. Data collected from ID processes survey.

The current ID processes received mostly high ratings of 4 or 5 out of 5 from the participants, which indicates that they have a generally positive view of the department's ID processes. Similarly, the participants were also requested to identify strengths and weaknesses; some of their responses were:

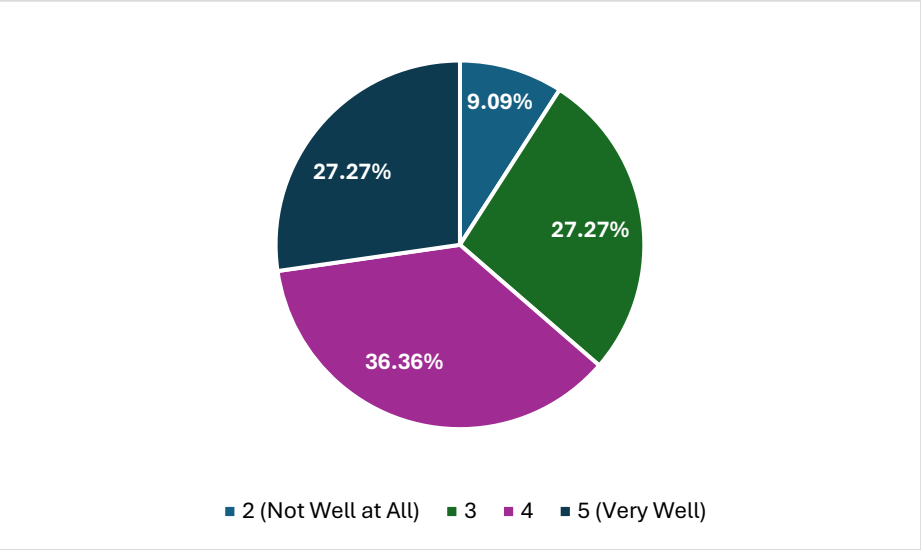
- **Strengths**:
    - The team has access to tools for editing and creating materials.
    - There is excellent teamwork and communication among team members.
    - The team demonstrates great flexibility in adjusting processes to meet client needs.

  - The team has a variety of skills and expertise, which helps them to find solutions for client needs.
  - Tasks are given reasonable development times, which guarantee feasible workloads and effective task completion.
  - The team and the leaders communicate well with each other, which helps with understanding and collaboration.
  - There is a positive atmosphere of collaboration and trust among peers and leaders.
  - IDs can learn new skills and improve their knowledge through the different projects they work on.
- **Weaknesses**:
  - Slow or delayed feedback from BPMs/SMEs can affect workflow productivity and interfere with project timelines.
  - Most of the times, the source content is not ready to be developed, which causes project timelines to be delayed or get stuck.
  - Team members do not frequently share their experiences , which could reduce the chance of improving their skills together.
  - The creativity and freedom of design for learning materials are sometimes restricted to meet client needs.
  - Without a proofreading team, instructional materials might have errors that lower the quality and user experience.

- Without a central place to find the information they need, IDs have difficulty getting the information they require.
- The review process is time-consuming and occasionally disorganized, affecting project timelines and productivity.

Figure 27

Support for the Development of Learning Materials



Note: Own creation. Data collected from ID processes survey.

The survey results show that the participants have different opinions on how well the current ID processes help them create engaging and effective learning materials. A large number of participants rated it highly (4 or 5 out of 5), but some of them rated it lower, at 2 or 3. This suggests that some parts of the ID processes may need to be improved to better assist the development of learning materials.

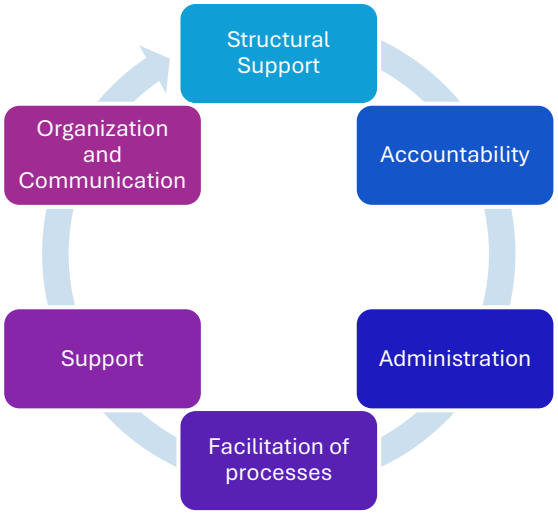
In this area, the participants were asked how they think project management processes could impact on their daily work and the department's performance. The results were the following:

- Provide structure, support, and guidance throughout the project lifecycle.
- Collect information and communicate tasks.
- Follow up with stakeholders to collaborate and share resources within the established timelines.
- Make it simpler for the IDs, especially when managing multiple projects simultaneously.
- Promote organization, communication, risk management, and quality assurance.
- Achieve project success and overall satisfaction.
- Keep team members informed and updated on project timelines.
- Allow for a complete map of all project expectations and facilitates organization.
- Encourage work-life balance.

Based on these perceptions, it is important to establish a PMO that provides an adequate support based on the L&D team's needs in order to help them grow as IDs and mature as department. This involves not just creating new processes, but also improving the ones that already exist such as frameworks, tools, and overall guidance. Moreover, the PMO can serve as a platform for sharing knowledge, best practices, and launching ongoing improvement projects.

Figure 28

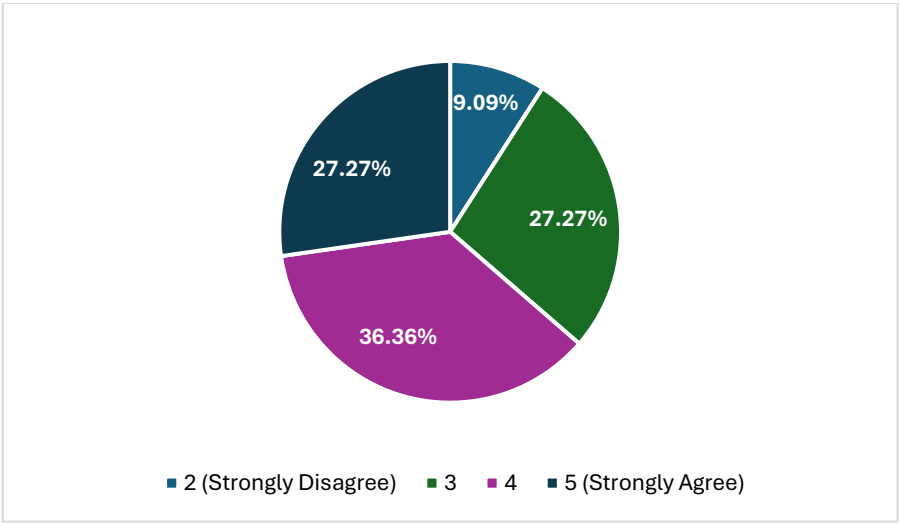
Project Management areas to be considered for the PMO



Note: Own creation based on the data collected from ID processes interviews and focus groups.

Figure 29

Adequacy of Resources and Support



Note: Own creation. Data collected from ID processes survey.

Most of the participants indicated that they have enough resources and support to perform their ID processes competently, with ratings of 4 or 5 out of 5. This confirms that the department usually satisfies the needs of its team members in terms of resource provision and support for performing ID processes.

To explore this topic further, the participants were asked what kinds of materials or resources they think could improve their daily work activities and responsibilities. The results are grouped in the table below:

Table 15

Resources to improve the L&D team's daily work

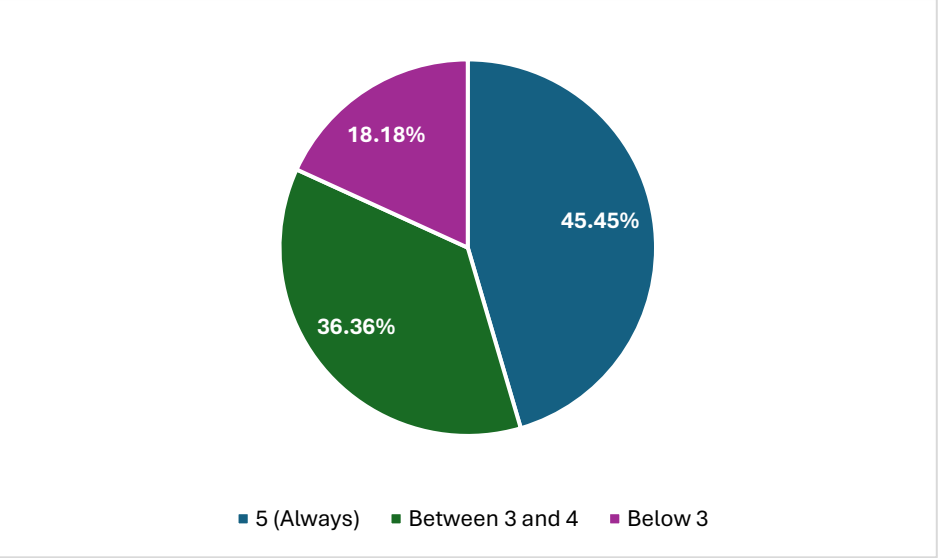
Type of Resource	Examples provided by the IDs
Templates and complete source content	• Pre-designed course templates aligned with Microsoft's compliance and branding procedures. • Collect complete source content with clear learning objectives to improve content development.
Graphic design support	• Allocate hours for graphic design support in each project to improve visual aspects of courses. • Provide training for the IDs in this area to improve the quality of materials.
Integration of Artificial Intelligence	• Use AI tools for content creation and audiovisual editing.
Tutorials	• Tutorials on tasks such as filling out ADO or publishing in Storyline. • Video tutorials demonstrating step-by-step procedures for different tasks.
Workshops	• Interactive live workshops where presenters demonstrate task execution, allowing IDs to practice (learn by doing).

Type of Resource	Examples provided by the IDs
Centralized resource access	• A centralized platform providing easy access to resources and materials required for the projects.
Tools for quality assurance	• Implement grammar correction tools like Grammarly and internal trackers to maintain quality standards and track project progress.
Professional development opportunities	• Offer training sessions focusing on the latest ID techniques and methodologies, allowing IDs to stay updated and increase their skills.

Note: Own creation based on the data collected from ID processes interviews and focus groups.

Figure 30

Frequency of Feedback on Contributions



Note: Own creation. Data collected from ID processes survey.

Most participants gave a positive rating (4 or 5 out of 5) on how often they receive feedback on their contributions to the ID processes. This suggests that the department has effective feedback mechanisms, which are highly important for ongoing learning and growth. Nevertheless, the IDs shared additional suggestions that include:

- Seek input frequently from stakeholders to meet their requirements.
- Identify effective management practices such as those of Lead IDs and other project support models.
- Promote continuous skill development to stay updated with industry trends.
- Provide organized onboarding for new hires to reinforce training materials.
- Evaluate ID processes regularly for improvement opportunities.
- Give access to existing templates for simplified and agile course development.
- Organize cooperative working sessions at the beginning of the project.
- Establish dedicated review teams to speed up project reviews and sign-offs.
- Conduct consistent training sessions for skill improvement.
- Set up clear communication channels and a centralized resource platform.

4.2 PMO Types Analysis: comparing models for the L&D Department

This section builds on what was already introduced in Chapter II about the PMO. Based on a literature analysis, the section provides a deeper explanation of what a PMO is and the different types (models and structures) that exist. It also describes some of their main functions, roles, and responsibilities.

4.2.1 What is a PMO

It is important to clarify that while there are different PMO models and structures, the analysis will primarily focus on the three main models proposed by the PMI: Supportive, Controlling, and Directive PMOs. It will also review two specific structures: Departmental and Agile PMOs.

According to Martins (2024), “a PMO defines, standardizes, establishes, and runs business-critical planning and operational processes across the entire organization or within a specific department. Typically, this includes determining how products and services are built and delivered at a department or company level” (para.5). This means that PMOs can define, establish, and enhance standards and methods to enable organizations to deliver quality products and to improve its project management capabilities.

Furthermore, Sanderson et al. (2019) highlight the different functions of PMOs, from overseeing and controlling project activities to helping to create project management methods and reporting to senior management. In this sense, the PMI (2022) states that PMOs are now trying to go beyond their usual functions to include more activities such as adopting new technologies, building team culture, and developing project managers into agents of value creation for the organization.

The FGP research involved conducting interviews (information mainly for section 4.3.). However; for this section, participants were asked to describe their role within the organization and to indicate how it relates to project management or the potential implementation of a PMO. For the aforementioned, they shared the following:

- **Lead ID Manager:** manages the projects pipeline and assigns resources to each project. Collaborates directly with PMs to align tasks, prevent overlap, and prioritize successful deliverables. Setting up a PMO can improve collaboration among team members when working on projects, which helps to achieve the desired outcomes (C. Mora, personal communication, March 11, 2024).
- **Project Managers**: oversee project planning, execution, monitoring, and closure to ensure product delivery. This role directly corresponds to a PMO, which guides, supports, and ensures proper business practices and procedures. (V. Martínez, personal communication, March 11, 2024).
- **Lead ID:** oversee the development of all assigned projects from start to finish, coordinating with their team to ensure timely task completion. This role is closely related to a PM, as they participate in planning, help manage project deadlines, define scope, analyze risks, and resolve roadblocks as needed. (K. Quintero, personal communication, March 12, 2024).

The idea of designing a PMO is supported by these perspectives, which highlight the importance of teamwork, guidance for best practices, and improved project management processes within the department.

4.2.2 Types of PMOs (models and frameworks)

When considering the implementation of a PMO, Pinto et al. (2019) indicate that there is a lack of consolidated structures, which usually represent challenges for organizations that are trying to adopt PMO frameworks. Additionally, the PMI (2013) states that “there is no formalized model and no standard consensus on the “right” form of a

PMO" (p.2), suggesting that organizations tend to structure their PMOs based on their business needs and project management maturity levels.

In terms of organizational size and PMO structure, Martins (2024), identifies that in smaller companies, a single PMO team may apply consistent project management practices across all departments while in larger organizations with more departmental differences (just like Allyis Tech Mahindra), PMOs may be located within the departments they support.

Given these particularities about the models and their variations based on organizational type, Table 16 provides more details about the three models proposed by the PMI as described by different authors:

Table 16

PMI's PMO Models (diff. authors)

Model	PMI (2017, 2023)	Metapm (2020)	Scheiner (2023)	Martins (2024)
Supportive – ***Control: LOW***	• Consultative role. • Serves as a project repository: templates, best practices, training, access to information, and lessons learned.	• Consultative support. • No direct intervention or control over projects. • Serves as a project repository: templates, training, access to information, best practices, and lessons learned.	• Offers guidance and support when requested by team members. • Helps to onboard and train staff, arranges templates, and establishes common analysis metrics. • Useful with real-time change management rather than prioritization.	• Provides mentoring, training, information, and support. • Provides suggestions and structure for projects but allows PMs to decide whether to adopt them.
Controlling – ***Control: MODERATE***	• Facilitates compliance through the adoption of project	• Dependent on compliance. • Requires adherence to project	• Responsible for conformance and compliance, ensuring the use of appropriate tools	• May review projects to ensure compliance. • Most beneficial for ensuring process

Model	PMI (2017, 2023)	Metapm (2020)	Scheiner (2023)	Martins (2024)
	management frameworks, templates, forms, and tools. • Conducts audits and enforces rigid processes.	management frameworks, methodologies, specific templates, forms, tools, and governance.	and overseeing resource management. • Enforces guidelines and practices agreed upon in the project charter. • Can serve as an intermediary between directive and controlling PMOs.	adherence and uniformity across teams. • Standardizes guidelines and expects PMs to follow them effectively.
Directive – ***Control: HIGH***	• Takes direct control of projects. • Assigns project managers and mandates reporting to the PMO.	• Directs project activities and provides resources and support. • Assigns PMs to specific activities and requires reporting on progress.	• Communicates directly with stakeholders and clients. • Hires and assigns PMs (guides and supervisors). • High influence in project planning	• Takes direct control of project management elements. • Coordinates most project planning details, including resource allocation, risk

Model	PMI (2017, 2023)	Metapm (2020)	Scheiner (2023)	Martins (2024)
		• Promotes a high degree of consistency across the organization.	and management throughout the project lifecycle.	management, and scoping. • Tends to staff the most personnel due to its involvement in large initiatives.

Note: Own compilation.

As seen in Table 16, these three types of models are differentiated according to the degree of control and intervention in the projects. Hence; for this FGP, it will be necessary to identify the kind of PMO that will suit best the L&D Department based on its requirements and needs.

In addition to these models and as a result of an SME workshop, the PMI (2013) developed additional frameworks (or descriptive profiles), which are briefly explained below:

Table 17

Other PMI relevant PMO Frameworks

Framework	Description
Organizational Unit PMO/Business Unit PMO/Divisional PMO/Departmental PMO	• Provides project-related services to support a business unit or division within an organization including, but not limited to, portfolio management, governance, operational project support and human resources utilization.
Project-Specific PMO/Project Office/Program Office	• Provides project-related services as a temporary entity established to support a specific project or program. • May include supporting data management, coordination of governance and reporting, and administrative activities to support the project or program team.
Project Support/Services/Controls Office or PMO	• Provides enabling processes to continuously support management of project, program or portfolio work throughout the organization. • Uses the governance, processes, practices, and tools established by the organization and provides

Framework	Description
	administrative support for delivery of the project, program or portfolio work within its domain.
Enterprise/Organization-wide/Strategic/Corporate/Portfolio/Global PMO	• Provides enabling processes to continuously support management of project, program or portfolio work throughout the organization. • Uses the governance, processes, practices, and tools established by the organization and provides administrative support for delivery of the project, program or portfolio work within its domain.
Center of Excellence/Center of Competency	• Supports project work by equipping the organization with methodologies, standards and tools to enable project managers to better deliver projects. • Increases the capability of the organization through good practices and a central point of contact for project managers.

Note: Extracted from Project Management Institute (2013). *PMO Frameworks*. pmo-frameworks.pdf (pmi.org)

Up to this point, it is possible to confirm the fact that there is a wide variety of PMO types, hence it is confirmed that a singular standard cannot be defined. For instance, Scheiner (2023) and Metapm (2020) also refer to other kinds of PMOs such as:

- Activist PMO
- Delivery PMO
- Compliance PMO
- Centralized PMO
- Decentralized PMO

- Individual PMO

Given this diversity, the PMO in the L&D Department may also consider or be influenced by the following two structures (perhaps not in this FGP proposal, but to consider for the future as the PMO gains more maturity):

- **Departmental PMO (Metapm, 2020; PMI, 2023):**
    - Responsible for projects within a specific department, such as finance or IT.
    - Reports are directed toward the department manager.
    - Balances and manages the needs of various projects within the department (from small, short-term projects to multi-year programs with multiple resources).
- **Agile Project Management Office (Metapm, 2020):**
    - Requires minimal planning and maximum collaboration.
    - Analyzes processes while working alongside project managers.
    - Goes one step at a time, adapts to changes mid-stream and facilitates smooth transitions.

After understanding the different types of PMOs, the following section explains more about the functions, roles, and responsibilities of a PMO.

4.2.3 PMO Functions, Roles and Responsibilities

The previous section reviewed the basic idea of how a PMO works depending on its type and the organization's readiness to support and maintain it, as well as its available resources and stakeholder support. These factors determine the PMO's capacity to contribute to, influence, and support projects.

To learn more about the work domains of a PMO, the PMI (2013) defines nine areas of activity, which are shown in Table 18:

Table 18

PMOs Domains of Work (PMI)

Domain	Main Functions/Tasks
1. Standards, Methodologies and Processes	• Methodology and metrics definition. • Process development and improvement.
2. Project/Program Delivery Management	• Define business goals. • Resource management. • Schedule/cost/scope management. • Business realization management. • Risk management. • Stakeholder management. • Communications and Project integration.
3. Portfolio Management	• Prioritization and Strategic alignment. • Portfolio reporting. • Resource management allocation. • Opportunities and investment analysis. • Risk management. • Benefits realization tracking/reporting.
4. Talent Management	• Training. • Career paths and development. • Capability/skills development. • Certifications/qualifications/credentials.
5. Governance and Performance Management	• Performance reporting. • Issue escalation. • Information distribution. • Metrics/KPIs.

Domain	Main Functions/Tasks
	• Compliance and Financial management. • PMO performance management.
6. Organizational Change Management	• Customer/stakeholder satisfaction. • Managing resistance . • Readiness assessment. • Stakeholder management. • Communications.
7. Administration and Support	• Tools provisioning/implementation/support. • Consulting. • IT/IS support.
8. Knowledge Management	• Defining knowledge management policies. • Managing intellectual property. • Lessons learned. • Content management and collaboration.
9. Strategic Planning	• Confirming strategic priorities. • Defining business goals and aligning to initiatives. • Environmental scanning. • Opportunity analysis.

Note: Extracted from Project Management Institute (2013). *PMO Frameworks*. [p.7]. pmo-frameworks.pdf (pmi.org)

Based on Table 17 and Table 18 it is possible to identify that these domains of work can be related to the different types of PMOs. What needs to be considered is that each PMO type will have different levels of involvement and influence on these domains, affecting the way projects are managed within the organizations.

It is also relevant to note that the literature analysis shows a significant similarity between the terms “functions”, “responsibilities”, and “domains of work”. Although the differences between types of PMO have been explained, which naturally describe expected tasks, the PMI's domains of work also suggest specific tasks and responsibilities. To further understand these roles and responsibilities, Table 19 and Table 20 synthesize information collected from different authors.

According to Martins (2024), PMOs usually include project and process managers as well as business strategy team members who cooperate to “standardize processes across the department or organization they support” (Who works within the PMO?, para.1). Additionally, ITonlinelearning (2023) states that the staff within a PMO should have diverse skills and backgrounds, such as project management professionals, analysts, and support staff. Yet, it is worth noting that most of the literature focuses on the role of the PMO as such and not so granular for each of its members.

Table 19

PMO Roles and responsibilities

Role	Responsibilities
PMO Director/Manager	• Oversees PMO operations, sets strategic direction, and manages stakeholders.
Project Managers	• Plan, execute, and close projects according to PMO standards and methodologies.
Analysts	• Analyze project data, prepare reports, and provide insights and recommendations to PMs and stakeholders.
Support Staff	• Administer and provide logistical support to the PMO and project teams, including meeting scheduling, project

Role	Responsibilities
	documentation maintenance, and communication facilitation.

Note: Adapted from ITonlinelearning. (2023). 9 Ways the Project Management Office Matters. LinkedIn. https://www.linkedin.com/pulse/9-ways-project-management-office-matters-itonlinelearning/

Some other functions or responsibilities of the PMO are:

Table 20

Additional PMO Responsibilities

Author/Source	Responsibilities
PMI (2017)	• Allocate resources across projects. • Guide and support PMs. • Ensure adherence to project management standard, policies and procedures. • Adopt agile practices. • Close projects and release resources.
The Open University (2024) – (*Similar to the PMI's domains of work).*	**Strategic Planning and Governance** • Define project criteria and select projects aligned with business goals. • Advise on cost-benefit ratio. **Project Management Methodology** • Define project management methodologies (such as waterfall or agile). **Best Practices** • Manage organizational process assets and standardize procedures. • Establish project management practices.

Author/Source	Responsibilities
	Common Corporate Culture • Assess project management maturity and establish a common project culture. **Resource Management** • Manage and allocate resources based on priorities, schedules, and budgets. **Administration** • Provide administrative support and manage project documentation. **Reporting** • Produce and distribute project reports according to organizational needs. **Specialist Skills** • Provide support in bid management, business analysis, and project prioritization. **Professional Development** • Support organizational maturity and development within project management. **Financial Control** • Serve as a repository of knowledge and skills within the organization. • Support financial viability assessments.
ProjectManager (2024)	**Governance and Transparency** • Implement appropriate decision-making processes. • Perform audits and peer reviews. • Define project structure and ensure accountability. • Provide guidance on important choices based on reliable information. **Reusability**

Author/Source	Responsibilities
	• Share lessons learned, templates, and best practices from previous projects. **Delivery Support and Traceability** • Streamline processes, offer training, mentor, and quality assurance. • Manage project documentation, history, and organizational knowledge.

Note: Own creation. Adapted from PMI (2017), The Open University (2024), and ProjectManager (2024).

To conclude this section, it is vital to emphasize that the literature review helped to understand the different types of PMOs, especially the Supportive, Controlling, and Directive ones as well as the Departmental and Agile PMOs which might potentially help to strengthen the L&D Department's PMO once it is established.

This diversity supports the theory that there is no one-size-fits-all model, in addition to highlighting that organizations can customize their PMOs to match their specific needs, size, and project management maturity levels.

Figure 31

PMO Functions and Responsibilities

Note: Own creation.

4.3 L&D Department PMO design proposal

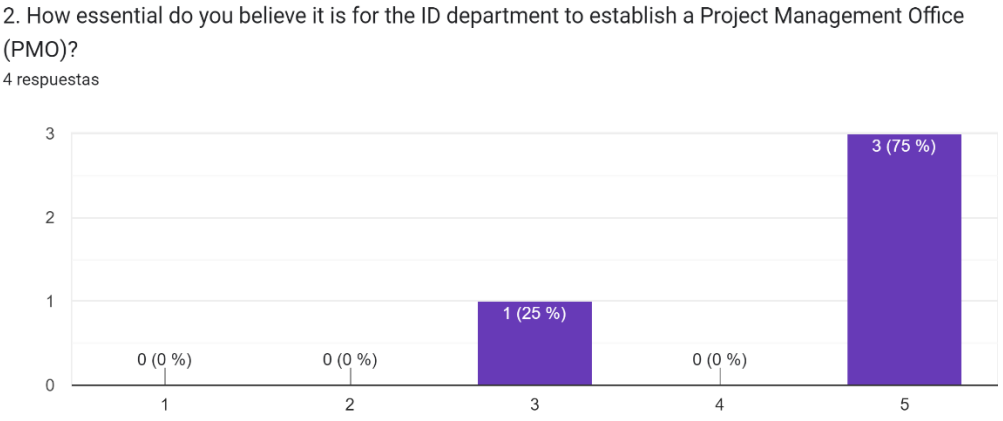
As reviewed in the previous section, the PMO must respond to the specific needs of each organization or; in the case of this FGP, those of the L&D Department. For this section, leadership team information was collected about how they view and anticipate a PMO for the department. The information was obtained through surveys and interviews conducted with the 2 PMs, 1 Lead ID and the Lead ID Manager.

For the question “How essential do you believe it is for the ID department to establish a PMO?”, 75% of the participants indicated that it is “Extremely Essential” while the other 25% rated it as “Somewhat Essential”. This indicates that; even though there are

already defined processes, having an entity that is specifically responsible for supporting and controlling project management processes is seen as something that could enhance the dynamics of the department.

Figure 32

Establishing a PMO

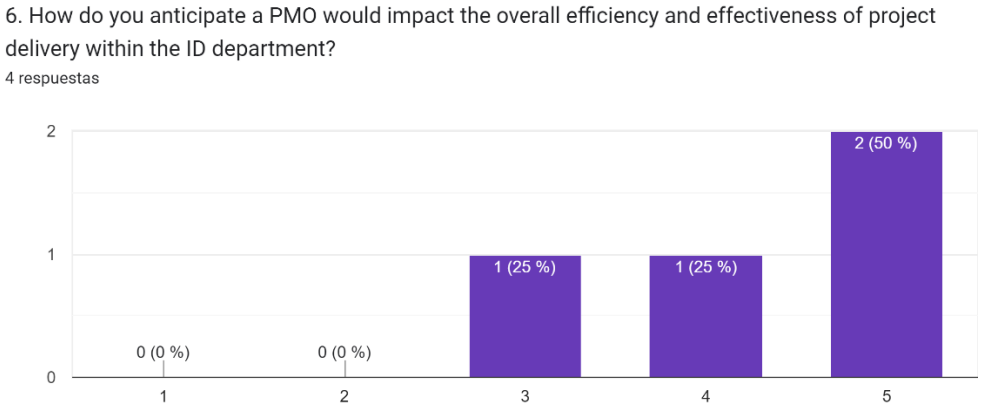


Note: Own creation. Data collected from the leadership team PMO survey.

Regarding the question “How do you anticipate a PMO would impact the overall efficiency and effectiveness of project delivery within the ID department?” the participants had diverse opinions: 50% think it would have a major improvement, a 25% anticipate a minor improvement, and the remaining 25% was neutral, which could suggest uncertainty about how the PMO could affect their processes. This diversity of perspectives reflects the challenge of establishing a PMO and highlights the need of customized practices to address the L&D Department specific needs and projects.

Figure 33

Impact of the PMO



Note: Own creation. Data collected from the leadership team PMO survey.

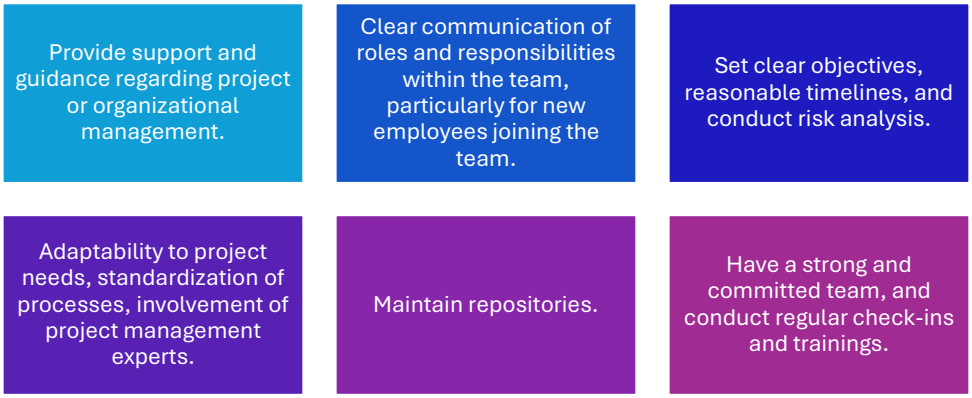
During the interviews and focus groups, the participants were asked about:

- Their perspectives on the most important characteristics or requirements of a successful PMO.
- Their views regarding the key functions that the PMO should fulfill within their department.
- The roles and responsibilities they believe should be assigned to the PMO team members.

Figures 34, 35, and 36 summarize their answers:

Figure 34

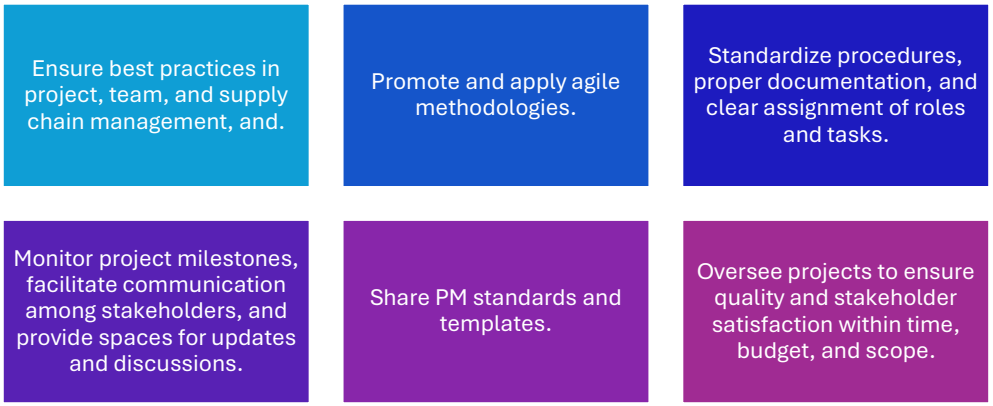
PMO's Most Important Characteristics/Requirements (L&D Perspective)



Note: Own creation based on the data collected from PMO interviews and focus groups.

Figure 35

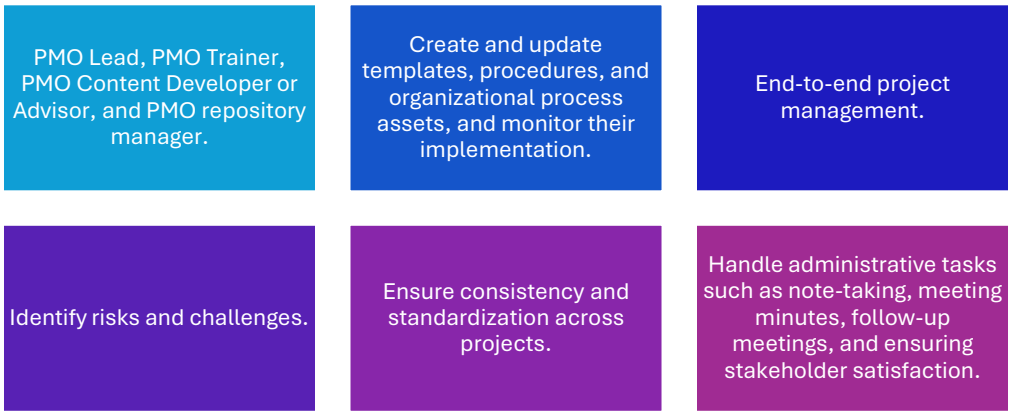
PMO Key Functions (L&D Perspective)



Note: Own creation based on the data collected from PMO interviews and focus groups.

Figure 36

L&D Department PMO's Roles and Responsibilities (L&D Perspective)



Note: Own creation based on the data collected from PMO interviews and focus groups.

These feedback from the L&D team members will help to design the PMO structure, describe its functions, and clarify the roles and responsibilities of its staff to ensure it achieves its goals of supporting project management and organizational objectives.

4.3.1 PMO's Mission and Vision

The proposed mission and vision for the PMO are based on the mission and vision of Allyis Tech Mahindra (section 2.1.2), the literature review, and the perceptions of the L&D team members:

- **Mission**: To improve project management capabilities in the L&D Department by providing structured support, standardized processes, and promoting effective communication and collaboration.

- **Vision**: To lead the way in creating a culture of excellence in project management within the L&D Department, promoting innovation, effectiveness, and success through a dedication to responsibility, flexibility, and constant learning.

4.3.2 PMO Type

As established in section 4.1.2 Maturity Level Analysis, the L&D department is moving from Level 2 to Level 3 of maturity in the ten knowledge areas evaluated (overall score: 2.4), which means that the department has some competence in project management, but it also has potential for growth and improvement (same view as the leadership team). Based on this analysis, it is decided that a Controlling PMO / Departmental type is the best option to begin with and transition to a Directive type as the department matures (which will not be developed in this FGP).

Moreover, as reviewed in section 4.2.2 Types of PMOs (models and frameworks), a Controlling PMO provides a moderate level of control over projects, appropriate for departments such as the L&D that are transitioning from less structured project management approaches (ad-hoc or informal) to more formal ones. This type of PMO can help to establish frameworks, templates, and processes to guarantee compliance and adherence to project management standards.

As ProjectManager (2024) suggests, “don’t overload your project management office from the start. That’s a recipe for disaster. Remember that the PMO is a new entity in the organization, so it’s going to take time before it’s commonplace.” (Step 2: Design the Plan, para.3). This statement recognizes that the PMO needs time to become part of the

organization and that it requires a step-by-step adoption process to ensure successful implementation, which is what this FGP intends.

4.3.3 PMO Structure and Staffing

As stated in the previous section, the PMO within the L&D Department will operate as a dedicated unit, reporting directly to the L&D Department MSA Lead. It will consist of a core team responsible for overseeing project management processes and providing support to PMs and other L&D team members.

The purpose of this section is to review the existing resources of the L&D team and identify which roles would need to be filled by new people (whether from within or outside the organization). After reviewing the literature and analyzing the data obtained from the different sources, the following roles are the ones suggested for the L&D Department PMO:

Table 21

L&D Department's PMO Roles

Role	Main Responsibilities	Suggestion from the L&D Team
PMO Director/Manager	• Directs PMO's overall operations (strategy and structure). • Manages stakeholders and overall communications.	• MSA Lead (Vargas, J.). • Needs to be fully engaged with Microsoft BPMs Director.
PMO Lead	• Leads and guide the PMO team (PMO Director's "right hand").	• Lead ID Manager (Mora, C.). • Needs to be fully engaged with Microsoft BPMs.

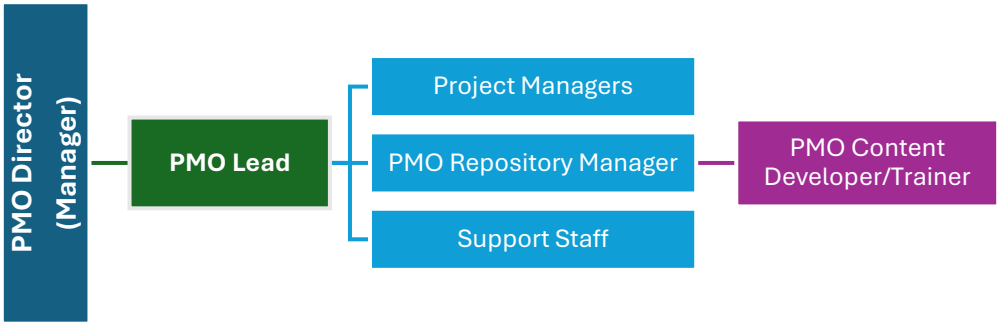
Role	Main Responsibilities	Suggestion from the L&D Team
	• Participates in the design of PMO processes and procedures. • Communicates with the PMO Content Developers and Trainers.	
Project Managers	• Plan, execute, monitor and close projects according to PMO standards and methodologies, as well as Microsoft Compliance, Branding, and Accessibility guidelines. • Must have frequent communication with the PMO Lead.	• PMs (Martínez, V., Román, L.). • Needs to be fully engaged with Microsoft BPMs and RLs. • It would be helpful to have support from PMs from other departments or higher ranks of Tech Mahindra.
PMO Content Developer/Trainer	• Develop and maintain PMO documentation, templates, best practices, lessons learned, policies, and standards. • Deliver project management, instructional design, and adult learning training and mentoring (methodologies, models, tools, etc.). • Must have frequent communication with the PMO Lead.	• Lead IDs (Quintero, K., Delgado, K., Carmona, K.). • It may be helpful to assign or hire someone dedicated to this role to avoid overloading the leads.

Role	Main Responsibilities	Suggestion from the L&D Team
PMO Repository Manager	• Manages the PMO repository of project documents, templates, and resources. • Oversees the work of content developers/trainers. • Provide PMs with the necessary resources for each project.	• Lead ID Manager (Mora, C.). • To prevent overloading the Lead ID Manager, a possible solution is to have one of the PMs take on the role or delegate it to someone who has enough knowledge of the team's procedures.
Support Staff	• Prepare reports, analyze data, schedule meetings, collect data from the L&D team, internal communication.	• This role can be executed, or its tasks distributed among any of the previous roles or coordinated in real time according to the needs of the PMO.

Note: Own creation (main reference: Table 19 and Figure 36).

Figure 37

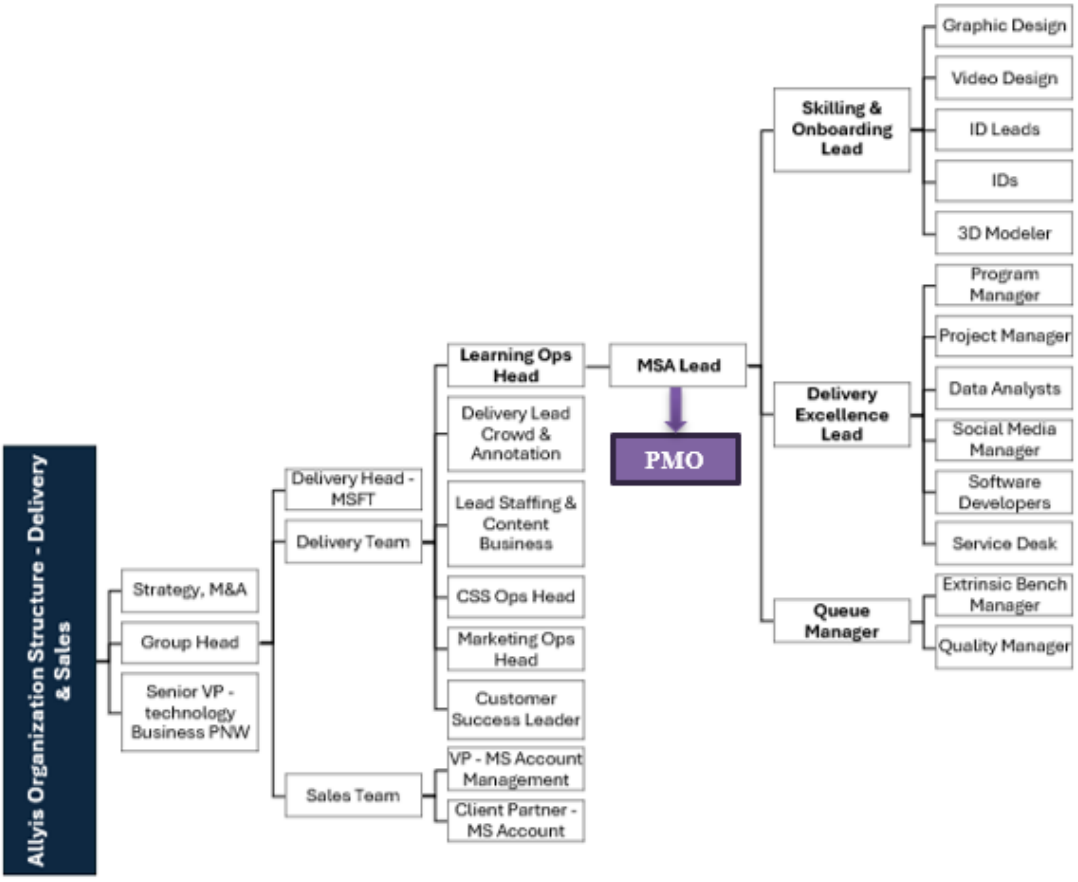
L&D Department PMO Staff



Note: Own creation based on Table 21.

Figure 38

Location of the PMO in the Organizational Structure



Note: Own creation based on Figure 3.

4.3.4 PMO Main Functions/Responsibilities

This section summarizes the proposed functions and responsibilities reviewed in Tables 18, 19, 20 and 21, and Figures 33, 34, and 35:

Table 22

L&D Department PMO Roles and Responsibilities

Area	Functions/Responsibilities	PMO Director/ Manag.	PMO Lead	PMs	PMO Content Dev/Trainer	PMO Repository Manag.	Support Staff
Governance and Oversight	Ensure alignment between Allyis Tech Mahindra, L&D Department and Microsoft goals, objectives, needs and opportunities (e.g., roles, decision-making, PMO process reviews, compliance and financial management).	**X**	**X**	**X**			
Standardization and Culture	Develop and implement standardized project management processes, methodologies and content development approaches (e.g., project charters, plans, reports, timelines, development models).		**X**	**X**	**X**	**X**	
Training and Development	Provide training and development opportunities for project managers and team members (e.g., templates,		**X**		**X**		**X**

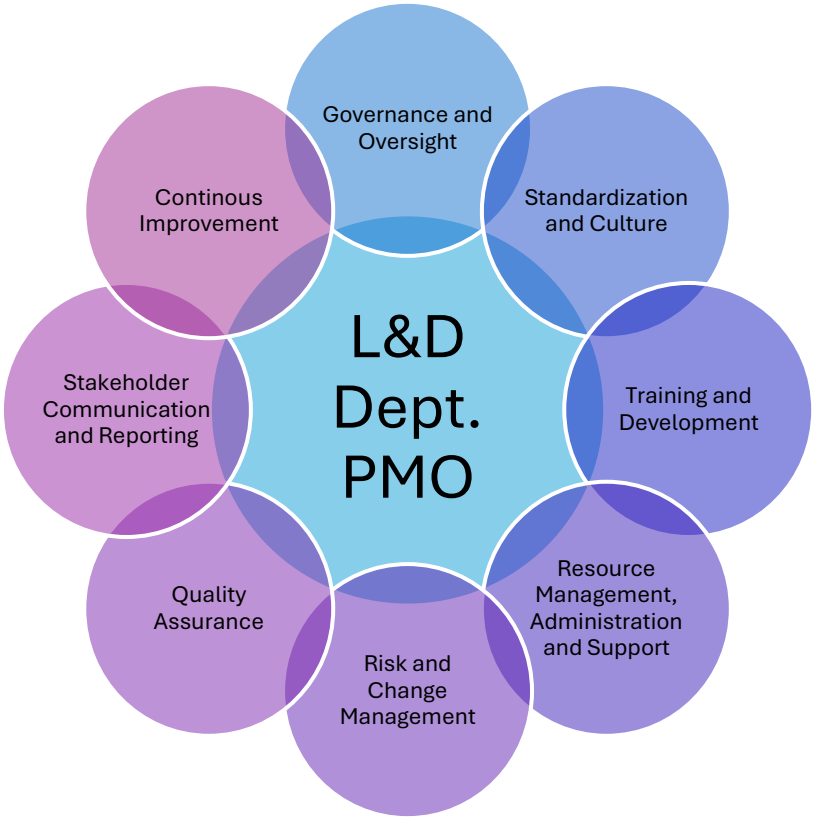
Area	Functions/Responsibilities	PMO Director/ Manag.	PMO Lead	PMs	PMO Content Dev/Trainer	PMO Repository Manag.	Support Staff
	workshops/training sessions, mentoring, coaching, credentials).						
Resource Management, Administration and Support	Allocate resources based on ID team capacity and skills, project prioritization and budget (e.g., IDs assignment to projects, tools, consulting).	**X**	**X**	**X**			
Risk and Change Management	Identify, assess, and mitigate project risks (e.g., risk register, risk response plans), and project changes (e.g., stakeholder satisfaction, resistance/readiness).	**X**	**X**	**X**			**X**
Quality Assurance	Establish quality standards and conduct regular reviews to ensure that projects meet quality expectations and stakeholder requirements (e.g., success criteria, metrics, performance reviews).		**X**	**X**		**X**	

Area	Functions/Responsibilities	PMO Director/ Manag.	PMO Lead	PMs	PMO Content Dev/Trainer	PMO Repository Manag.	Support Staff
Stakeholder Communication and Reporting	Ensure transparency and alignment throughout the project lifecycle (e.g., communication plan, stakeholder engagement plan, meetings, reports).	**X**	**X**	**X**			
Continuous Improvement	Review and refine project management processes and practices (e.g., lessons learned/retrospectives, best practices).	**X**	**X**	**X**	**X**	**X**	**X**

Note: Own creation.

Figure 39

L&D Department PMO Responsibilities



Note: Own creation.

Given the current challenges with staff availability in the L&D department, it is important to note that some tasks may be overlapped or shared by different roles. However, it is expected to adjust roles and tasks as the PMO matures and reaches higher levels of maturity.

4.4 PMO Implementation Analysis: Expected Benefits and Challenges

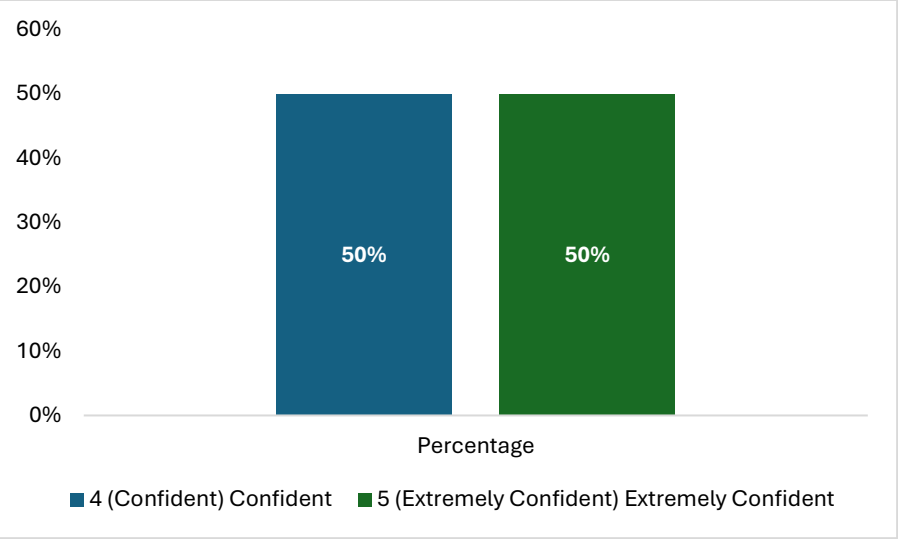
The previous sections reviewed theory about the PMO and the different perceptions and expectations of the L&D team, which was the basis for developing the PMO framework for the department. The proposed mission, vision, and PMO type (Controlling PMO / Departmental) were tailored to the L&D department's maturity level (transitioning from level 2 to level 3). Additionally, the structure, roles, responsibilities, and functions of the PMO were defined in alignment with the main objective of this FGP.

Given the limits of time and resources, the FGP does not involve the actual implementation plan. Nevertheless, this section presents the expected benefits (pros) and challenges (cons) related to the implementation based on the L&D team's perspective and insights from some of the authors cited in earlier sections.

The feedback gathered from the PMO survey participants indicate a strong confidence in the L&D team's capability to implement the PMO within the department (Figure 40), which greatly supports the project's proposal and development.

Figure 40

Confidence in PMO Implementation



Note: Own creation. Data collected from the leadership team PMO survey.

Likewise, the participants were asked about the potential benefits of implementing the PMO (Figure 41). First and foremost, they selected the following:

- Better organization and alignment of project goals.
- Clearer guidelines and standardized processes.
- Clearer understanding of project performance.

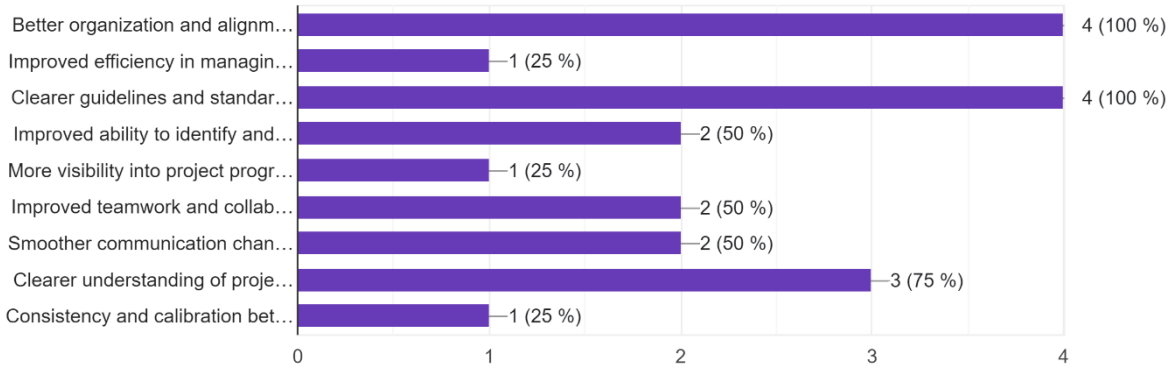
Secondly, the participants highlighted:

- Improved ability to identify and mitigate risks.
- Improved teamwork and collaboration.
- Smoother communication channels.

Finally, it appears that the processes are somewhat clearer for resource management, project progress visibility, and alignment of management/leadership teams. Therefore, the impact of the PMO would not be perceived as much as compared to the other areas.

Figure 41

Expected benefits of implementing the PMO in the L&D Department



Note: Own creation based on the data collected from PMO interviews and focus groups.

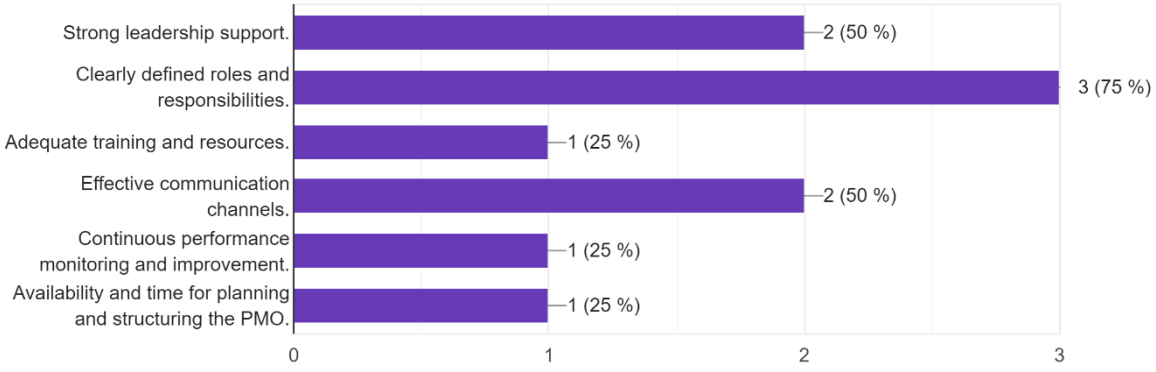
These expected benefits align with findings from Pinto et al. (2019) about the pros and cons of PMO implementation. Within the pros, the authors mention improved project management, reduced incidence of problematic projects, improved quality and customer satisfaction, more efficient resource utilization in multi-project environments, adherence to best project management practices, better control of project status and communication, and facilitation of knowledge transfer across the organization (Table 1, p.450).

In line with this, the L&D team members identified the following as key factors for a successful PMO implementation (Figure 42), they are listed in order of relevance:

1. Clearly defined roles and responsibilities.
2. Strong leadership support.
3. Effective communication channels.
4. Adequate training and resources.
5. Continuous performance monitoring and improvement.
6. Availability and time for planning and structuring the PMO.

Figure 42

Key factors for a successful PMO implementation



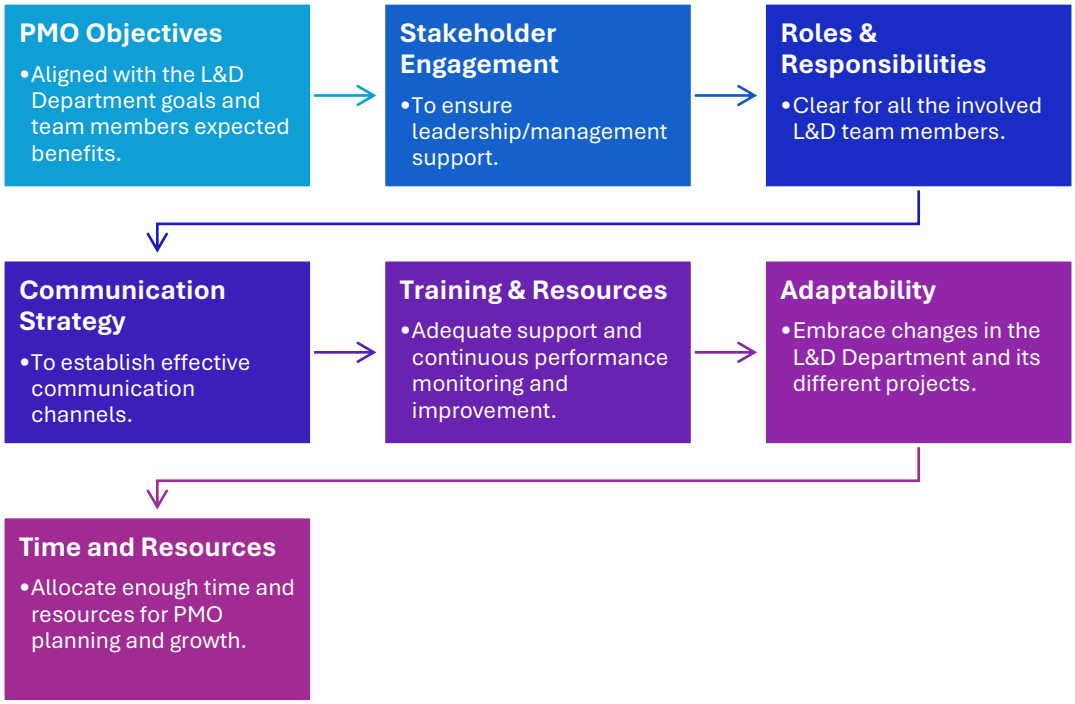
Note: Own creation based on the data collected from PMO interviews and focus groups.

Taking again as a reference, Pinto et al. (2019) compiled several PMO success factors that include: organizational culture favorable to the PMO, clear process for managing projects and collecting acquired knowledge, easy access of staff to PMO resources, top management support assurance, coverage of the organization's true needs, allowance time for PMO progression, creation of some distance and independence from the projects, so that the PMO is a support tool and not a resource, and others (Table 8, p.461).

Based on this data, Figure 43 gathers the most important elements to consider for the L&D Department PMO implementation plan:

Figure 43

PMO Implementation Plan Elements



Note: Own creation.

Regarding the challenges (cons), the participants anticipate that some of the following scenarios could occur and/or impact:

- Insufficient company support or resources affecting PMO management or support in ID projects.
- Overload of responsibilities on the Lead IDs and IDs by having to assume PM tasks, given that there is currently only one official PM dedicated to the role as such. This

situation implies a constant reinforcement of project management guidelines and good practices in those projects that lack a dedicated PM. .

- The alignment of the ID team around new processes as it requires clear communication and engagement strategies. Some suggestions to tackle this are: official email communications, department meetings, regular updates (e.g., monthly or quarterly), and satisfaction surveys (e.g., quarterly or semiannual).
- Limited time and resources, inconsistency with other departmental PM strategies, and potential resistance from ID team members, for which it is proposed to establish a strong communication plan and updates strategy to manage team expectations and address any changes or processes impacted by the PMO implementation.

These are just some of the perceptions of the L&D team. However; as mentioned in Section 4.2.2, there is no standard model or consensus on the correct way of creating or implementing a PMO, so these and many other scenarios can occur.

Some other challenges mentioned by Pinto et al. (2019) include: issues defining the PMO role, introducing bureaucracy to the existing organizational structure, imposing unreasonable workloads on PMO staff, encountering non-supportive organizational cultures, demonstrating added value, lacking of experienced PMs and PMO leadership, failing to tailor the PMO to the company's specific needs, lacking of training and communication on PMO implementation for all stakeholders, conflicting tasks between projects and departments, resource shortages, among others (Table 7, p.460).

This analysis demonstrates the importance of having clear roles to manage uncertainty and unexpected changes, which might occur in an implementation process such

as the one proposed in this FGP. Moreover, having enough support from management/leadership is needed for adjusting and staying adaptable in changing situations, while keeping the reliability of the PMO's work and support.

Figure 44

PMO Implementation Challenges

Note: Own creation.

In this sense, the L&D team members were asked what resources and support they believe are necessary for the effective functioning of the PMO, to which they indicated: alignment among company leaders and project managers, involvement of all leads and ID team members in understanding the end-to-end process (documented cycles), conducting satisfaction surveys for feedback, and establishing proper communication channels, frequent calibration meetings, and overall analysis of processes.

Since this FGP will not cover the PMO implementation, it is relevant to mention the findings from Sanderson et al. (2019), who studied a case of a Brazilian technology-based company to understand PMO changes and growth. Based on their experience, these are some factors that can be considered for a successful PMO implementation and its expected evolution over the years:

Table 23

PMO Transitions - Brazilian technology-based company (Case Study)

Factor	Considerations
Alignment with strategy	• Ensure PMO aligns with company strategy. • Evaluate the need for internal adjustments, such as leadership changes, to maintain alignment.
Compliance and satisfaction	• Check compliance with external PM requirements. • Assess internal staff satisfaction and address any concerns.
Stakeholder management	• Monitor stakeholder satisfaction levels. • Implement strategies to manage tensions arising from stakeholder dissatisfaction.
Adaptation and evolution	• Continuously assess PMO's relevance and adaptability. • Explore new roles and responsibilities for the PMO to maintain effectiveness.
Career development and collaboration	• Promote collaboration between development staff and project managers. • Ensure equitable career opportunities within the PMO.

Note: Based on Sanderson, B., De Toledo, J.C., & Da Silva, I. (2019). *The Effect of Stakeholders' Satisfaction and Project Management Performance on Transitions in a*

Project Management Office, IEEE Access, vol. 7, 169385-169398. https://ieeexplore.ieee.org/abstract/document/8911308

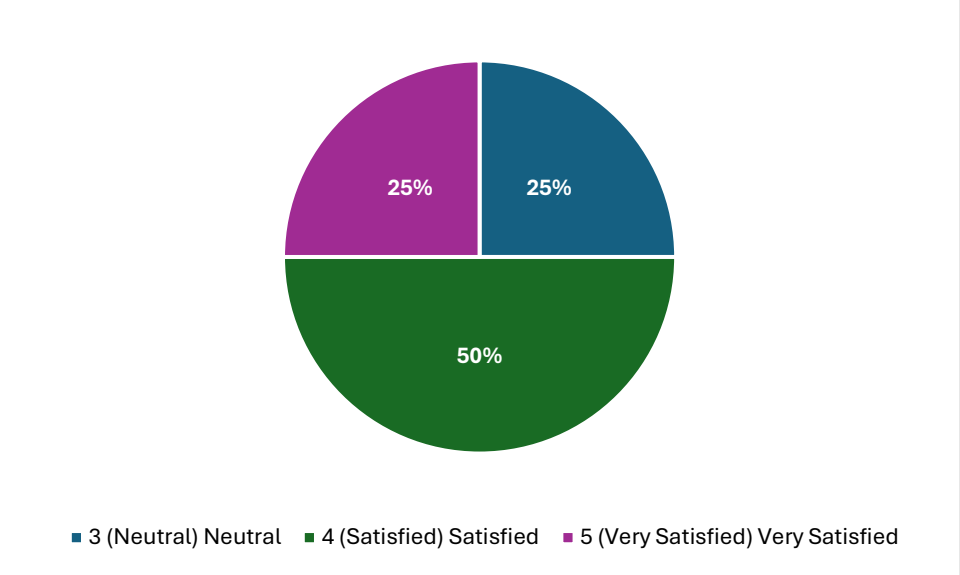
4.5 PMO Introduction: communication considerations

The following section briefly presents the information collected about the communication channels preferred by the L&D team, as well as theoretical support from the reviewed literature.

After analyzing the PMO survey results, it was noted that the level of satisfaction with transparency in communication within the L&D team is relatively good (Figure 45). The fact that no one in the team expressed dissatisfaction is a positive sign. However, there was one neutral response which can suggest that there may be areas for improvement.

Figure 45

Satisfaction with Communication Transparency



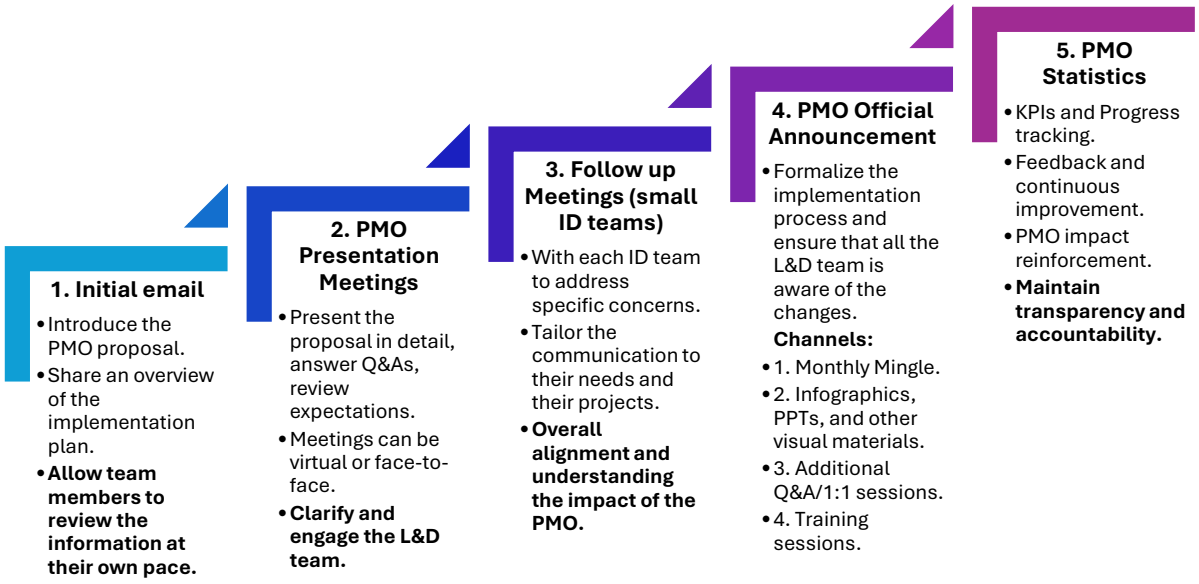
Note: Own creation. Data collected from the leadership team PMO survey.

As reviewed in Section 4.1.3 and Figure 30, the IDs indicated that there are existing feedback mechanisms that work well. However, they also shared some opportunities for improvement, which include regularly gathering stakeholder input, learning from leaders and support models, encourage ongoing skill development, continuously enhancing processes, collaborating early in projects, establishing clear communication channels, among others.

Regarding the PMO, the leadership team was consulted about what communication strategies they think would be most effective in informing the L&D team about the PMO proposal and implementation. Based on their responses, the communication strategy would need to involve a combination of written and verbal communication methods, as structured in the following figure:

Figure 46

L&D Department PMO - Communication Strategy



Note: Own creation based on data collected from the leadership team PMO survey.

As for the ways to get updates and information about the PMO implementation and evolution, participants said that they would like:

1. Newsletter
2. Email
3. Meetings

Following Atanasijević et al. (2019) PM Digital Communication Channels breakdown format (p.76), the L&D Department PMO communication could be structured as follows:

Table 24

Communication Channels per type and # participants

		Type of Communication	
		Synchronous – Online	**Asynchronous - Offline**
# Participants	**One-on-one**	PMO Microsoft Teams Channel	Outlook Business e-mail
	Project Team	Microsoft Teams for Virtual Meetings	SharePoint repository
	Group	PMO Weekly/Monthly Sessions	PMO Newsletter; PMO Forums

Note: Own creation based on data collected from the leadership team PMO survey.

Some key messages to communicate when introducing the PMO proposal to the L&D team members and other key stakeholders should comprise:

1. Purpose and objectives (mission and vision).
2. Expected benefits and value.
3. Alignment with Allyis Tech Mahindra's and Microsoft goals.

4. Expected support for ID projects and professional development.
5. Training process and feedback mechanisms.
6. Implementation plan timeline and milestones.

Finally; as L&D team members learn more about the PMO and what it is expected to do, their feedback and suggestions will be gathered and analyzed to help refine and improve the overall design and functioning of the PMO.

5 CONCLUSIONS

The FGP general objective was to design a PMO proposal for Allyis Tech Mahindra's L&D department, which currently faces some challenges in project management practices for its ID projects. The research mainly relied on the PMI's PMBOK (2017 and 2021) standards and frameworks, while also considering the organizational context and needs of the L&D Department.

It was necessary to review Allyis Tech Mahindra's history, mission, vision, structure, products, and how it currently handles its ID projects. The research also introduced project management concepts, defined what a PMO is and how it can support and improve the L&D department. To collect the information, both quantitative and qualitative methods were used (surveys, interviews, focus groups, and literature reviews).

Based on this research, it is concluded that:

1. The department has established ID processes and practices such as the ones part of the ID Book of Work or the MICROSERVICES catalog. However, these processes are not completely updated, consistent or standardized across all projects, nor is there a dedicated person to do it.
2. The maturity level is 2.4, which means that the department is progressing from an initial level to having some established processes and standards in place (such as the mentioned in point 1). The goal is to continue growing and strengthening the practices to reach the next level (3 = organizational standards and institutionalized process).

3. The greatest lack of structure is found in the areas of cost and procurement, while scope, resource, communications, risk, and stakeholder areas still need greater consensus and consistency.
4. The team needs further strengthening and support in the standardization of ID processes and tools to improve the product (content) development process. For this, it is required to clarify the requirements with stakeholders, as well as to replicate and adapt project management models that currently work.
5. There needs to be a logical sequence between the hiring process, onboarding, new hire training and tenured employees continuous training in line with both instructional design and project management trends.
6. Although the theory confirms that there is no standard consensus on the correct model for a PMO based on the ones described by the PMI (Supportive, Controlling, and Directive PMOs), the L&D Department identified needs and maturity level, it is determined that the model that could help them is the Controlling PMO (moderate control).
7. The PMO should focus on improving project management skills, providing structured support, standardizing processes, and promoting clear communication among the stakeholders.
8. The staff should be composed of the PMO Director, PMO Lead, PMs, PMO Repository Manager, PMO Content Developers/Trainers, and Support members. It is important to consider that the initial plan is to start with the staff that the L&D Department currently has. As a result, some tasks may be delegated to a single

person or distributed among different PMO members, depending on their availability and skills to handle multiple responsibilities within both the PMO and their primary role.

9. The PMO main areas of action and support should be Governance and Oversight, Standardization and Culture, Training and Development, Resource Management, Administration and Support, Risk and Change Management, Quality Assurance, Stakeholder Communication and Reporting, and Continuous Improvement.
10. The expected benefits include better organization and alignment of project goals, clearer guidelines, standardized processes, enhanced project performance understanding, improved ability to identify and mitigate risks, better-quality teamwork, and clear communication channels.
11. The expected challenges include PMO staff's increased workload and complexity, resistance to change, and loss of autonomy from PMs and IDs. Conflicts or disagreements with some stakeholders are also anticipated, which would imply constant evaluation and continuous improvement of the PMO's procedures and practices. .
12. The communication strategy should consider the following stages and aspects:
    - Stages: initial communication to introduce the PMO, presentations and Q&As meetings, follow up and alignment meetings, official communication, and announcement, and monitor PMO statistics (KPIs, progress, impact, etc.).

- Aspects: use written and verbal communication channels (email, meetings, newsletters, etc.), communicate synchronously (Teams chat, weekly and/or monthly sessions, etc.) and asynchronously (Outlook, SharePoint repository, Forums, etc.). Appropriate templates and communication trackers should be defined.
- Messages: mission and vision, expected benefits (value), alignment with Allyis Tech Mahindra's and Microsoft organizational goals, support for the ID projects and professional development, training and feedback mechanisms, and overall implementation plan (timeline and milestones).

6 RECOMMENDATIONS

Based on the scope of the FGP and the results obtained, the following recommendations are proposed for the L&D Department members who will join the PMO.

1. Assign one person (or a small team of 2-3 people that can rotate) to maintain and review the documentation of the ID processes. This person/group will need to collaborate with the PMO Content Developers/Trainers to ensure that everything is properly updated and that there are no gaps between the needs of the IDs and the requirements for project management.
2. Establish a post-PMO implementation period to evaluate the progress made and determine if there is a change in the department's maturity level (waiting for it to be positive). It is recommended to record lessons learned to determine which actions/tasks should be maintained, which need to be modified, or what new ones should be implemented.
3. Consult with the MSA Lead on project's cost and procurement demands and their implications for project management in order to improve decision-making, resource distribution, and to measure the impact of the products on Microsoft metrics.
4. Given that one of the main challenges faced in the ID projects is the lack of clarity and constant changes in the requirements, it is suggested to create specific templates for their review and approval, either through the Project Charter, Scope Statement, Requirements Traceability Matrix, or any other applicable and suggested by the PMI.

5. Schedule meetings with HR and the leadership team to define minimum role requirements, create an onboarding process aligned with project expectations, and assign mentoring/coaching roles to support new hires and internal growth.
6. Maintain a continuous improvement mindset in order to develop specific strategies focused on PMO sustainability and growth.
7. Since Allyis was acquired by Tech Mahindra, it is recommended to network with Tech Mahindra leaders to provide support and/or to replicate project management structures applicable to the L&D Department. Also, to be able to adjust any organizational differences that may exist during the transition.
8. The best scenario is to have the PMO staff work full-time, especially if the internal resources are the ones to be kept. Otherwise, it is suggested to make external hires and train them properly.
9. As the implementation is expected to be a time-consuming process, it is recommended to continue collecting feedback to assess overall satisfaction (from both the L&D team and Microsoft stakeholders).
10. Since the PMO implementation is not covered in this research, it is recommended for the PMO staff to collect the implementation findings. This should be compared to the expected benefits and challenges covered in this FGP (Section 4.4) to determine the causes of success or failure, as well as to decide if any adjustments to the PMO's approach are required.
11. Implement surveys to track how satisfied the L&D team is with how information is being shared (from the visual aspects to the clarity and value of the content).

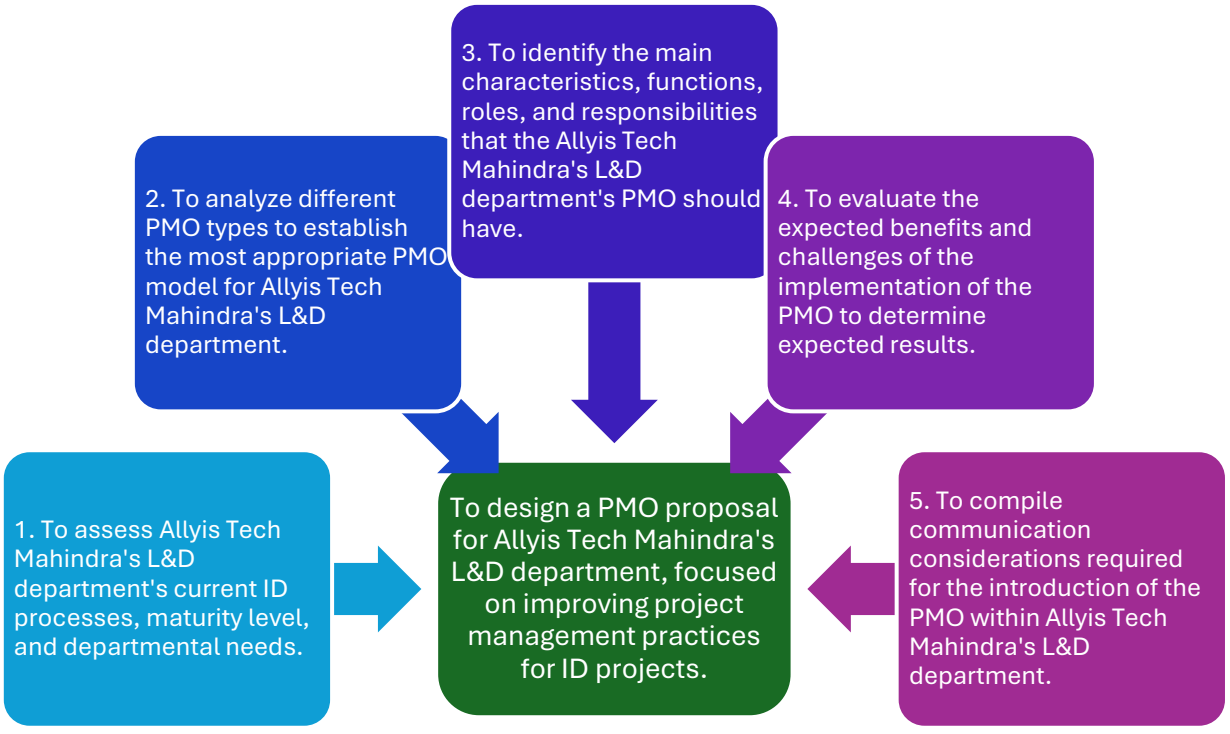
12. Develop a more solid and tailored strategy for establishing the PMO in local offices (Costa Rica). This would improve face-to-face support, in addition to being able to have a local base for visits from Tech Mahindra leaders or Microsoft clients.
13. Finally, it is recommended to carefully monitor the transition between the introduction and implementation phases to confirm its proper functioning in the Costa Rica office, so that its expansion to the offices in India can also be planned and executed.

7 VALIDATION OF THE FGP IN THE FIELD OF REGENERATIVE AND SUSTAINABLE DEVELOPMENT

The following chapter reviews how the FGP aligns with the principles of sustainability, which is part of UCI's fundamental pillars along with regeneration. The main goal is to analyze the impact of implementing a PMO centered on this concept within Allyis Tech Mahindra's L&D department.

Figure 47

FGP's Main and Specific Objectives



Note: Own creation.

Specifically, the chapter explores how the FGP objectives (Figure 47) relate to some of the United Nations (UN) Sustainable Development Goals (SDGs):

> In 2015, the 193 countries that make up the United Nations (UN) agreed to adopt the 2030 Agenda for Sustainable Development. The historic agenda lays out 17 Sustainable Development Goals (SDGs) and targets for dignity, peace, and prosperity for the planet and humankind, to be completed by the year 2030. The agenda targets multiple areas for action, such as poverty and sanitation, and plans to build up local economies while addressing people's social needs. (National Geographic Society, 2023, para.1)

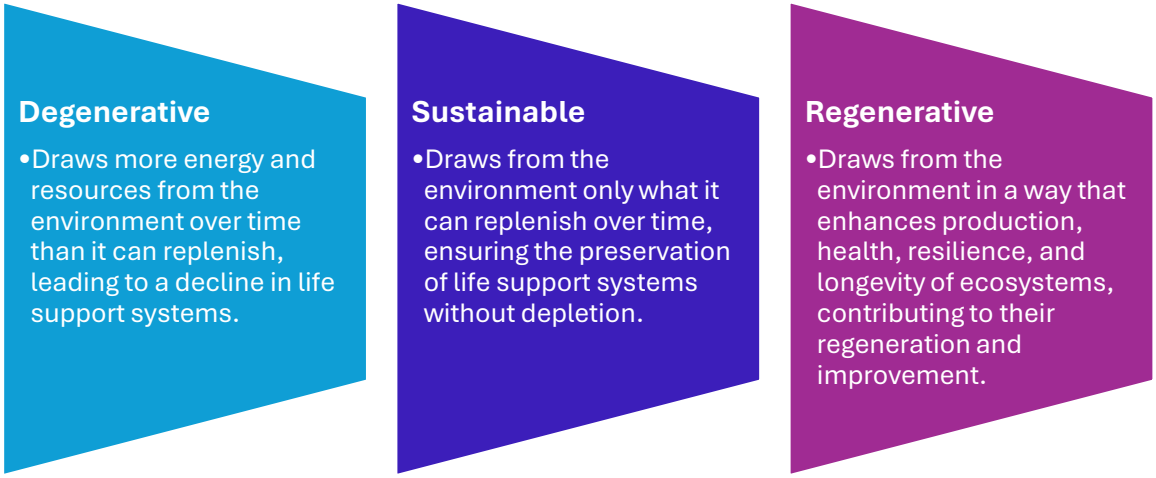
Currently, Allyis Tech Mahindra commits to corporate social responsibility and environmental sustainability by volunteering and donating to "local charities that support families, community health and welfare, and the environment" (Tech Mahindra Allyis, n.d.). In line with this, the development of the FGP provides an opportunity to keep contributing to this commitment by becoming aware of how the benefits of the PMO can go beyond organizational objectives. While not all the SDGs will be addressed, even small, meaningful changes can make a difference.

According to Silvius (2021), "within organizations, the project management office plays a leading role in the standards, methods, and practices of project management. However, the role of the PMO in sustainable project management is still unexplored" (p.1066). This is why it is important to start relating PMOs to the sustainable and regenerative project management approaches and the application of their principles in project planning, execution, and management processes.

To better understand how these concepts can be related to the PMO design proposal, Figure 21 presents three society types analyzed by Meyers (2022), which will help relate the FGP to the SDGs, and even go beyond them with a regenerative mindset. As the author states, “a regenerative process in our ecosystems requires a regenerative process in our consciousness” (para.15), process which can have a multiplying effect in all areas in which human beings operate, including project management and instructional design.

Figure 48

Meyer’s Society Types



Note: Society types. Adapted from Meyers, G. (2022). What is the Difference Between “Regenerative” and “Sustainable”? *Our Regenerative Transition*. Medium. https://medium.com/the-regenerative-transition/what-is-the-difference-between-regenerative-and-sustainable-f6c042985f11

Based on Meyers’ society types and as defined by Silvius (2021), sustainable project management considers “the environmental, economic and social aspects of the life-

cycle of the project's resources, processes, deliverables and effects, aimed at realizing benefits for stakeholders, and performed in a transparent, fair, and ethical way that includes proactive stakeholder participation." (p.1067). In this sense, the PMO can promote sustainability within the L&D department by providing training, guidance, and expertise on diverse sustainability aspects in projects. For example, PRiSM, a sustainable project management methodology that incorporates sustainability into projects through the sustainability impact analysis (P5 Analysis) and the Sustainability Management Plan (SMP). (p.1071).

Given the broad implications of regeneration and sustainability concepts, the analysis in this chapter is limited to the SDGs. However, the Recommendations chapter suggests a further investigation into regeneration using Kate Raworth's (2017) Doughnut Economics model and the Green Project Management (GPM)'s sustainable project management methodology, PRiSM.

Considering what has been stated so far, Table 25 shows the SDGs applicable to the FGP at the time of developing this section.

Table 25

UN SDGs applicable to the FGP

SDG	SDG Description (United Nations, n.d.)	Relation to the FGP
No.4: Quality Education	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. Specifically, target 4.4.: • By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.	The PMO can assist by creating Skill Development Programs or Learning Paths and providing training/certification opportunities. (i.e.: sustainability and regeneration, project management, agile, design thinking, etc.).
No. 5: Gender Equality	Achieve gender equality and empower all women and girls. Specifically, target 5.5: • Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life. (Indicator: 5.5.2 Proportion of women in managerial positions).	The PMO is expected to support women's growth into leadership roles, provide development opportunities, and promote gender equality in the workplace.
No. 8: Decent Work and Economic Growth	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. Specifically, target 8.5: • By 2030, achieve full and productive employment and decent work for all women and men, including for	The PMO can ensure integration of Microsoft accessibility guidelines into project management processes (planning, design, and delivery phases, etc.) and templates, offer training mentorship to develop and/or improve project management skills, and drive performance improvements.

SDG	SDG Description (United Nations, n.d.)	Relation to the FGP
	young people and persons with disabilities, and equal pay for work of equal value.	
No. 12: Responsible Consumption and Production	Ensure sustainable consumption and production patterns. Specifically, targets 12.5 and 12.6: • By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse. • Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.	The PMO can raise awareness of responsible consumption and production practices such as remote work, digital materials usage, virtual meetings, and digital document management systems. Additionally, the PMO can reinforce Allyis Tech Mahindra's emphasis on sustainability practices beyond the office environment, as the L&D department works remotely. This can include providing resources, guidelines, and suggestions to reduce energy consumption and waste, thus encouraging a culture of environmental responsibility regardless of the employees' physical location.
No. 17: Partnerships for the Goals	Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development. Specifically, targets 17.8 and 17.16: • Fully operationalize the technology bank and science, technology and innovation capacity-building	The PMO can improve collaboration and communication with stakeholders, deliver workshops or trainings, and share best practices to support sustainable and regenerative development

SDG	SDG Description (United Nations, n.d.)	Relation to the FGP
	mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology. • Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries.	initiatives across the L&D department and its projects.

Note: Own creation based on United Nations. (n.d.). *The 17 Goals*. https://sdgs.un.org/goals#

REFERENCES

Allen, S. & Gardner, J. (2021). Project Management Competencies in Instructional Design. *Online Journal of Distance Learning Administration*, XXIV (2). University of West Georgia, Distance Education Center. https://ojdla.com/assets/pdf/allen_gardner242.pdf

Asana. (2022). *6 project constraints and how to manage them for project success*. Asana. https://asana.com/resources/project-constraints

Association for Talent Development. (2024). What Is Instructional Design? *Talent Development Glossary Terms*. https://www.td.org/talent-development-glossary-terms/what-is-instructional-design

Atanasijević, S., Atanasijević, T., Janković, V. & Zahar, M. (2019). Application of e-learning technology in corporate education - Case study of Comtrade's PMO Educt portal. *The 10th International Conference on eLearning*. Belgrade, Serbia. https://www.researchgate.net/publication/337389075_APPLICATION_OF_E-LEARNING_TECHNOLOGY_IN_CORPORATE_EDUCATION_-_CASE_STUDY_OF_COMTRADE'S_PMO_EDUCT_PORTAL

Bruneaux, T. (2022). *A beginner's guide to the business maturity model framework*. Vendr. https://www.vendr.com/blog/maturity-model

Eby, K. (2022). *How to Choose a Project Management Maturity Model: 7 Models, Tools, and Assessments.* Smartsheet. https://www.smartsheet.com/content/project-management-maturity

Evanick, J. (2023). *Project Management Frameworks in Instructional Design: Exploring Approaches.* eLearning Industry. https://elearningindustry.com/project-management-frameworks-in-instructional-design-exploring-approaches

Fabbro, E. & Tonchia, S. (2021). Project Management Maturity Models. Literature Review and New Developments. *Journal of Modern Project Management*. #25 Issue 8(3). https://journalmodernpm.com/manuscript/index.php/jmpm/article/download/JMPM02503/413

Gomes, J., Romão, M., and Caldeira, M. (2013). *Linking Benefits to Maturity Models*. Conference: 15th International Academy of Management and Business Conference at ISEG, Lisboa, Portugal Volume: Online Proceedings ISSN 1949 – 9108. https://www.researchgate.net/publication/236577092_Linking_Benefits_to_Maturity_Models

Hassan, M. (2024). *Methodological Framework – Types, Examples and Guide.* ResearchMethod.Net. https://researchmethod.net/methodological-framework/

ITonlinelearning. (2023). *9 Ways the Project Management Office Matters.* LinkedIn. https://www.linkedin.com/pulse/9-ways-project-management-office-matters-itonlinelearning/

Laoyan, S. (2022). *A deep-dive into project management maturity models*. Asana. https://asana.com/es/resources/project-management-maturity-model

Martins, J. (2024). *What is a project management office (PMO)?* Asana. https://asana.com/resources/pmo-project-management-office

McCombes, S. (2019). *Types of Research Designs Compared | Guide & Examples.* Scribbr. https://www.scribbr.com/methodology/types-of-research/

Metapm. (2020). Different types of PMOs. *THE 101 ON THE PROJECT MANAGEMENT OFFICE*. https://www.metapm.com.au/different-types-of-pmos

Meyers, G. (2022). What is the Difference Between "Regenerative" and "Sustainable"? *Our Regenerative Transition*. Medium. https://medium.com/the-regenerative-transition/what-is-the-difference-between-regenerative-and-sustainable-f6c042985f11

National Geographic Society. (2023). Sustainable Development Goals. *National Geographic*. https://education.nationalgeographic.org/resource/sustainable-development-goals/

OGC. (2010). *Portfolio, Programme and Project Management Maturity Model (P3M3®).* Procurement | Programmes & Projects. https://miroslawdabrowski.com/downloads/P3M3/OGC%20branded/P3M3_v2.1_Introduction_and_Guide.pdf

Pappas, C. (2021). *ADDIE Model Vs SAM Model: Which Is Best for Your Next eLearning Project.* https://elearningindustry.com/addie-vs-sam-model-best-for-next-elearning-project

Pinto, G. O., Mello, L. C. B. B., & Spiegel, T. (2019). Best practices in implementing a project management office: a systematic review of the literature. *Systems & Management*, 14 (4), 448-463. https://www.revistasg.uff.br/sg/article/view/1580/pdf_1

Pirotti, A., Rahim, F. A. M., & Zakaria, N. (2021). Implementation of Project Management Standards and Project Success: The Mediating Role of the Project Management Office. *Journal of Engineering, Project, and Production Management*, 12(1), 39-46. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3923768

ProjectManager. (2024). *Project Management Office (PMO) guide.* https://www.projectmanager.com/guides/pmo

Project Management Institute. (2017). *A guide to the project management body of knowledge (PMBOK guide)*. 6th edition. ISBN: 978-1-62825-184-5

Project Management Institute. (2021*). A guide to the project management body of knowledge (PMBOK guide)* and *The Standard for Project Management.* 7th edition. ISBN: ISBN 978-1-62825-664-2

Project Management Institute (2013). *PMO Frameworks*. https://www.pmi.org/-/media/pmi/documents/public/pdf/learning/thought-leadership/pulse/pmo-frameworks.pdf?rev=0e51511c12d64afabb0d967c1e82ce71&sc_lang_temp=en

Project Management Institute. (2022). *PMO Maturity. Lessons from the Global Top Tier*. https://www.pmi.org/-/media/pmi/documents/public/pdf/learning/thought-leadership/pwc_pmo-maturity_report.pdf?rev=80e4a32470a84040a4cdff2fe729d22d&sc_

Project Management Institute. (2023). *Which PMO Is Right for Your Organization?* https://www.pmi.org/learning/publications/pm-network/digital-exclusives/which-pmo-is-right-for-your-organization

Sanderson, B., De Toledo, J.C., & Da Silva, I. (2019). *The Effect of Stakeholders' Satisfaction and Project Management Performance on Transitions in a Project Management Office*, IEEE Access, vol. 7, 169385-169398. https://ieeexplore.ieee.org/abstract/document/8911308

Scheiner, M. (2023). *11 Different Types of PMO: PMBOK, Gartner, & Other PMO Types. CRM*. https://crm.org/news/types-of-pmo

Silvius, G. (2021). The role of the Project Management Office in Sustainable Project Management. *Procedia Computer Science*, Vol. 181, 1066-1076, ISSN 1877-0509, https://www.sciencedirect.com/science/article/pii/S1877050921003513

Sreekumar, D. (2023). *What is Research Methodology? Definition, Types, and Examples.* Paperpal. https://paperpal.com/blog/academic-writing-guides/what-is-research-methodology

Streefkerk, R. (2019). *Qualitative vs. Quantitative Research | Differences, Examples & Methods*. Scribbr. https://www.scribbr.com/methodology/qualitative-quantitative-research/

Tech Mahindra Allyis. (n.d.). *About us.* https://www.allyis.com/companyinfo

Tech Mahindra. (2022). *Tech Mahindra's Allyis Acquisition Driving Content Transformation Services.* https://files.techmahindra.com/static/img/pdf/techm-allyis-acquisition-driving.pdf

The Open University. (2024). Project governance and Project Management Office (PMO) [extract]. *M815 Project Management course*. OpenLearn. https://www.open.edu/openlearn/mod/oucontent/view.php?id=27294&printable=1

Torrance, T. (2023). *Applying Agile Project Management to ISD.* ATD Links Archive. https://www.td.org/global/nl/pm

United Nations. (n.d.). *The 17 Goals*. https://sdgs.un.org/goals#

University of Exeter. (2024). *INTO: Business Research Project - Finding & using library resources: 1. Types of Information Sources.* https://libguides.exeter.ac.uk/intobusinessproject/typesofinfo

University of Newcastle Library Guides. (2023). *Research Methods: What are research methods?* https://libguides.newcastle.edu.au/researchmethods

University of Wisconsin-Stevens Point. (2023). *Primary, Secondary, and Tertiary Sources of Information in the Sciences: Types of Information Sources.* Libraries. https://libraryguides.uwsp.edu/InformationSourcesInTheSciences

APPENDICES

Appendix 1: FGP Charter

CHARTER OF THE PROPOSED
FINAL GRADUATION PROJECT (FGP)

1. Student name

María Luisa Román López

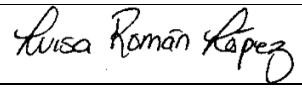
2. FGP name

Design Proposal for Establishing a Project Management Office (PMO) in Allyis Tech Mahindra's Learning and Development (L&D) department.

3. Application Area (Sector or activity)

Instructional Design / E-learning / Corporate Training / Learning and Development

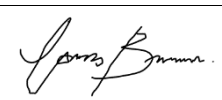
4. Student signature



5. Name of the Graduation Seminar facilitator

Carlos Brenes Mena

6. Signature of the facilitator



7. Date of charter approval

January 14, 2024

8. Project start and finish date

March 4, 2024	July 4, 2024

Research question

What are the benefits and challenges of implementing a PMO in Allyis Tech Mahindra's L&D department, particularly in improving the project management of instructional design (ID) initiatives?

9. Research hypothesis

How can the establishment of a PMO improve the success of ID projects within Allyis Tech Mahindra's L&D department and what challenges could be expected during its implementation?

10. General objective

To design a PMO proposal for Allyis Tech Mahindra's L&D department, focused on improving project management practices for ID projects.

11. Specific objectives

1. To assess Allyis Tech Mahindra's L&D department's current ID processes, maturity level, and departmental needs.
2. To analyze different PMO types to establish the most appropriate PMO model for Allyis Tech Mahindra's L&D department.
3. To identify the main characteristics, functions, roles, and responsibilities that the Allyis Tech Mahindra's L&D department's PMO should have.
4. To evaluate the expected benefits and challenges of the implementation of the PMO to determine expected results.
5. To compile communication considerations required for the introduction of the PMO within Allyis Tech Mahindra's L&D department.

12. FGP purpose or justification

Within Allyis Tech Mahindra, the L&D Department specializes in ID projects. These projects involve different training formats, including instructor-led training (ILT / VILT), online training (OLT), live sessions, assessments, laboratories, etc. During 2022, an initiative was being worked on to create a PMO for the L&D department; however, it was not continued due to lack of personnel and lack of time.

The importance of the project is that there is currently no PMO that allows standardizing or reviewing processes for the team and given the multiplicity of projects, the creation of the PMO is seen as necessary to support both current PMs and new ones (whether they are external hiring or internal promotions).

Currently, within the department, there are only two PMs who have been working hand in hand to create a common basis for project management; however, there is no repository of materials for standardization or consultation.

Among the expected benefits:

- Standardization in instructional design project management and continuous improvement.
- Alignment with customer needs and requests focused on corporate training.
- Support for new and current PMs (as well as ongoing training), ensuring they stay updated on the latest trends in traditional and agile project management practices.
- Greater efficiency in the use of resources and team performance (quantitative impact).

13. Work Breakdown Structure (WBS).

1. Design proposal for establishing a PMO in Allyis Tech Mahindra's L&D department

1.1 FGP Profile

1.1.1 Introduction
1.1.2 Theoretical framework
1.1.3 Methodological framework
1.1.4 Preliminary bibliographical research
1.1.5 Annexes (FGP schedule, FGP WBS, FGP Charter)

1.2 FGP development

1.2.1 Allyis Tech Mahindra’s Analysis
1.2.1.1 ID Processes
1.2.1.2 Maturity Level
1.2.1.3 Departmental needs
1.2.2 PMO types, characteristics and functions
1.2.3 PMO Design Proposal
1.2.3.1 Vision and Mission
1.2.3.2 PMO Structure within the L&D department
1.2.3.3 Roles and Responsibilities
1.2.4 PMO implementation benefits and challenges
1.2.5 PMO communication and implementation strategies
1.2.5.1 Training and Development
1.2.5.2 KPIs and Success Criteria
1.2.5.3 Communication
1.2.6 Conclusions
1.2.7 Recommendations
1.2.8 Regenerative and Sustainable Development
1.2.9 Reference lists
1.2.10 Annexes
1.2.11 Tutor approval for reading

1.3 Reader’s review

1.4 Adjustments

1.5 Board of examiners evaluation

14. FGP budget (considering Jan 2024 to July 2024).

Item	**Cost**
Electricity	$ 280.00
Internet plan	$ 329.00
PMI Student Membership	$ 32.00
Philologist	$ 300.00
Materials and Printing	$ 100.00
Transportation	$ 60.00
SUBTOTAL	**$ 1,101.00**
5% Contingencies	**$ 220.20**
TOTAL	**$ 1,321.20**

15. FGP planning and development assumptions

- Key stakeholders within Allyis Tech Mahindra's L&D department will actively support the establishment of the PMO (senior management, project managers, and other relevant department members).
- The necessary resources will be available to develop and implement the PMO proposal.
- Employees in the L&D department are open to organizational change, training, and development initiatives related to the PMO establishment.
- The PMO proposal will adhere to the standards defined by the Project Management Institute (PMI).

16. FGP constraints

- There is a limited number of project managers within the L&D department (two). Still, the project will be developed by a single person (student), creating additional constraints in terms of available expertise, workload, and capacity.

- The project's scope must be tailored to ensure completion within the established timeframe (three/four months).
- The actual cost or budget may need revision to reflect the real costs incurred during the FGP development.
- Potential resistance to change among employees and/or clients.

17. FGP development risks

- Incomplete or inaccurate analysis of Allyis Tech Mahindra's current ID processes and/or maturity level.
- Misalignment with the actual needs and expectations of the L&D department.
- Insufficient involvement of key stakeholders during the development phase.
- Late data provision from Allyis Tech Mahindra.
- Delayed feedback from the tutor/readers.

18. FGP main milestones

Deliverable	Finish estimated date
Graduation Seminar	
1.1. FGP Profiles (Deliverables)	2/25/2024
1.2. Graduation Seminar Approval	2/25/2024
Tutoring Process	
1.3.Tutor (assignment and communication)	3/3/2024
1.4. Adjustments of previous chapters (if needed)	3/3/2024
1.5. Chapter IV Development (results)	
1.5.1. Allyis Tech Mahindra Analysis	3/17/2024
1.5.2. PMO Types, characteristics, and functions	3/31/2024
1.5.3. PMO Design Proposal	4/14/2024
1.5.4. PMO Implementations benefits and challenges	4/28/2024
1.5.5. PMO Communication Considerations	5/5/2024

1.6. Chapter V Conclusions	5/12/2024
1.7. Chapter VI Recommendations	5/19/2024
1.8. Chapter VII Regenerative and Sustainable Development	5/26/2024
Reading by Reviewers	
1.9. Reviewers' Assignment Request	6/2/2024
1.10. Reviewers Work	6/16/2024
Adjustments	7/14/2024
Board of Examiners Evaluation	7/21/2024

19. Theoretical framework

19.1 Estate of the "matter"

Allyis Tech Mahindra's L&D department faces an operational gap due to the absence of a dedicated PMO and centralized project management repositories. This gap impacts project efficiency and strategic alignment within the L&D department. In 2022, L&D project managers initiated the ROOTS – Allyis – Tech M PMO Construction Initiative to address the problem. However, the project was paused due to time and staffing constraints, which resulted in valuable insights for the current FGP proposal.

The ROOTS initiative was interrupted, leaving the issue of the lacking PMO unresolved. The ongoing FGP proposal aims to implement a comprehensive PMO within the L&D department. The FGP proposal suggests improvements such as standardized project-related governance processes, enhanced resource management, refined methodology development, and efficient project coordination.

As of now, the design and implementation of the PMO is the main objective of this FGP. Therefore, no concrete results have been achieved. The initiative is part of a broader effort to address organizational challenges and enhance project management practices. While no specific mention is made of additional research, the FGP proposal integrates insights from the ROOTS initiative in

order to lay the foundation for further enhancements in the L&D project management framework.

19.2 Basic conceptual framework

Project Performance Domains, Knowledge Areas and Process Groups, Project Life Cycles (Predictive, Adaptive, Hybrid), Project Management Office, PMO Roles, Functions and Types.

20. Methodological framework

Objective	Name of deliverable	Information sources	Research method	Tools	Restrictions
1. To assess Allyis Tech Mahindra's L&D department's current ID processes, maturity level, and departmental needs.	L&D Department Assessment and Maturity Level Report	Online and scientific journals, website, e-book, blog, conference paper, pdf, and interviews.	Quantitative and Qualitative	Surveys, interviews, brainstorming, performance and literature reviews.	Lack of time from L&D employees to participate.
2. To analyze different PMO types to establish the most appropriate PMO model for Allyis Tech Mahindra's L&D department.	PMO Model Comparison Chart	E-book, website, research, and report.	Quantitative and Qualitative	Surveys, case studies, interviews, focus groups, and proposal evaluation.	Limited availability of diverse PMO models for comparative analysis (examples may not align with the L&D department needs and current structure).
3. To identify the main characteristics, functions, roles, and responsibilities that the Allyis Tech Mahindra's L&D	PMO Design Proposal	Electronic magazine, e-book, website, research, and report.	Quantitative and Qualitative	Surveys, interviews, brainstorming and focus groups.	Difficulty in obtaining enough PMO data from existing sources.

department's PMO should have.					
4. To evaluate the expected benefits and challenges of the implementation of the PMO to determine expected results.	PMO Implementation Evaluation Report	Conference paper, scientific journal and articles, e-book, website, research, report, and interviews.	Quantitative and Qualitative	KPI analysis, brainstorming and interviews.	Roadblocks in assessing benefits and challenges due to limited PMO data in this type of organization.
5. To compile communication considerations required for the introduction of the PMO within Allyis Tech Mahindra's L&D department.	PMO Introduction Communication Considerations document	E-book, electronic magazine, research, report, and interviews.	Quantitative and Qualitative	Surveys, brainstorming, focus groups, feedback, and voting.	Lack of clarity regarding the design elements of the PMO within the allotted time frame for conducting the FGP research.

21. Validation of the work in the field of the regenerative and sustainable development.

To validate the FGP in the field of the sustainable development, the research will explore how it aligns with some of the UN SDGs to emphasize Allyis Tech Mahindra's commitment to corporate social responsibility and environmental sustainability. The SDGs considered in the analysis are:

1. SDG 4: Quality Education - Ensuring inclusive and equitable quality education for all, with a focus on increasing relevant skills for employment and entrepreneurship.

2. SDG 5: Gender Equality - Achieving gender equality and empowering women and girls, particularly in leadership roles and decision-making processes.

3. SDG 8: Decent Work and Economic Growth - Promoting sustainable economic growth and full employment while ensuring equal pay and opportunities for all.

4. SDG 12: Responsible Consumption and Production - Encouraging sustainable consumption and production patterns that include waste reduction and adoption of sustainable practices.

5. SDG 17: Partnerships for the Goals - Strengthening global partnerships for sustainable development, emphasizing technology and multi-stakeholder collaborations.

The main goal will be to integrate these SDGs into the PMO’s design and implementation processes (project planning, execution, and management), which; in turn, will also improve Allyis Tech Mahindra’s economic growth.

Some indicators to measure the project's impact could include:

1. Assessing the level of stakeholder involvement and satisfaction through surveys, feedback mechanisms, and participation rates in project activities.

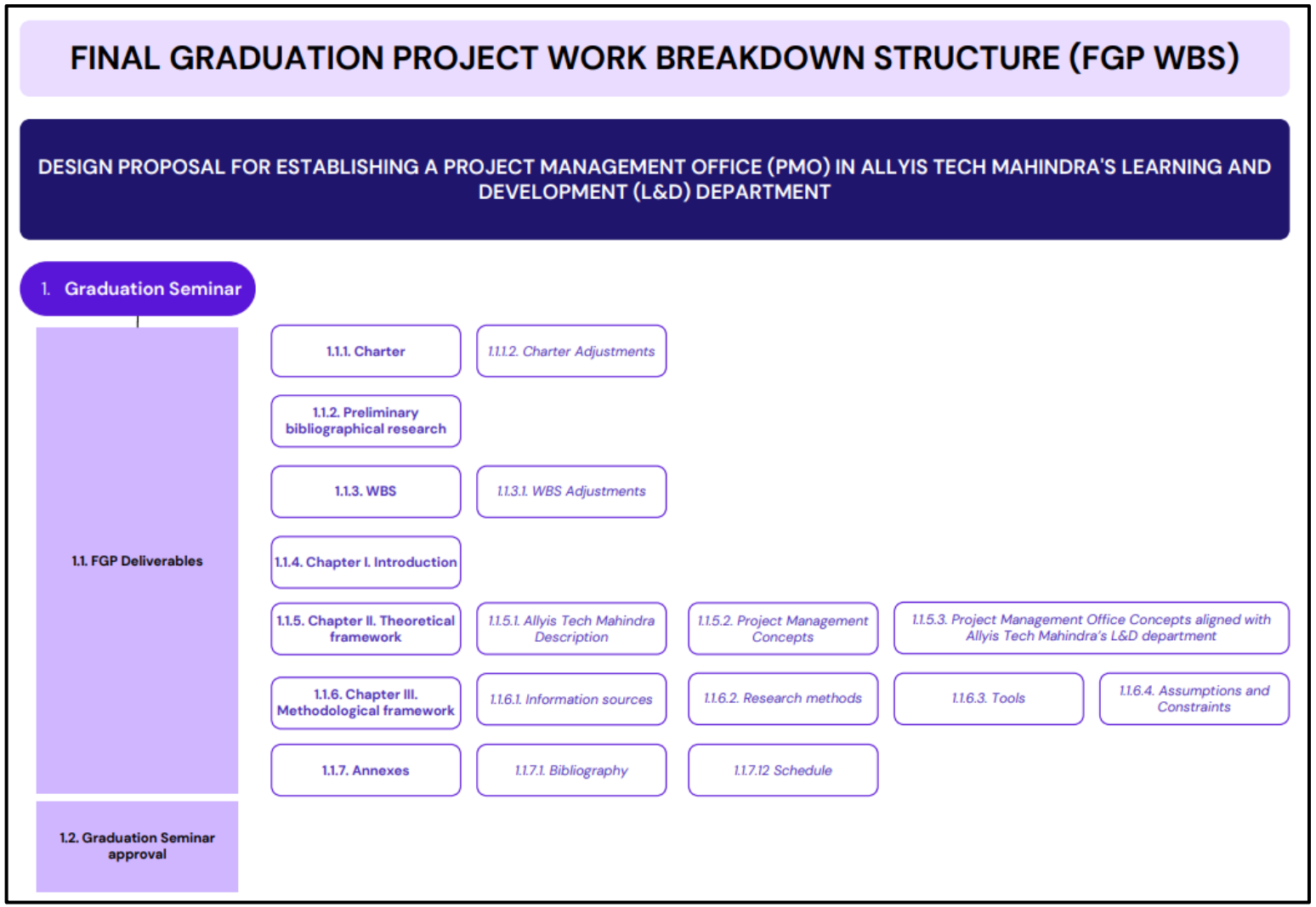
2. Evaluating the quality, efficiency, and success of ID projects using KPIs related to sustainability goals.

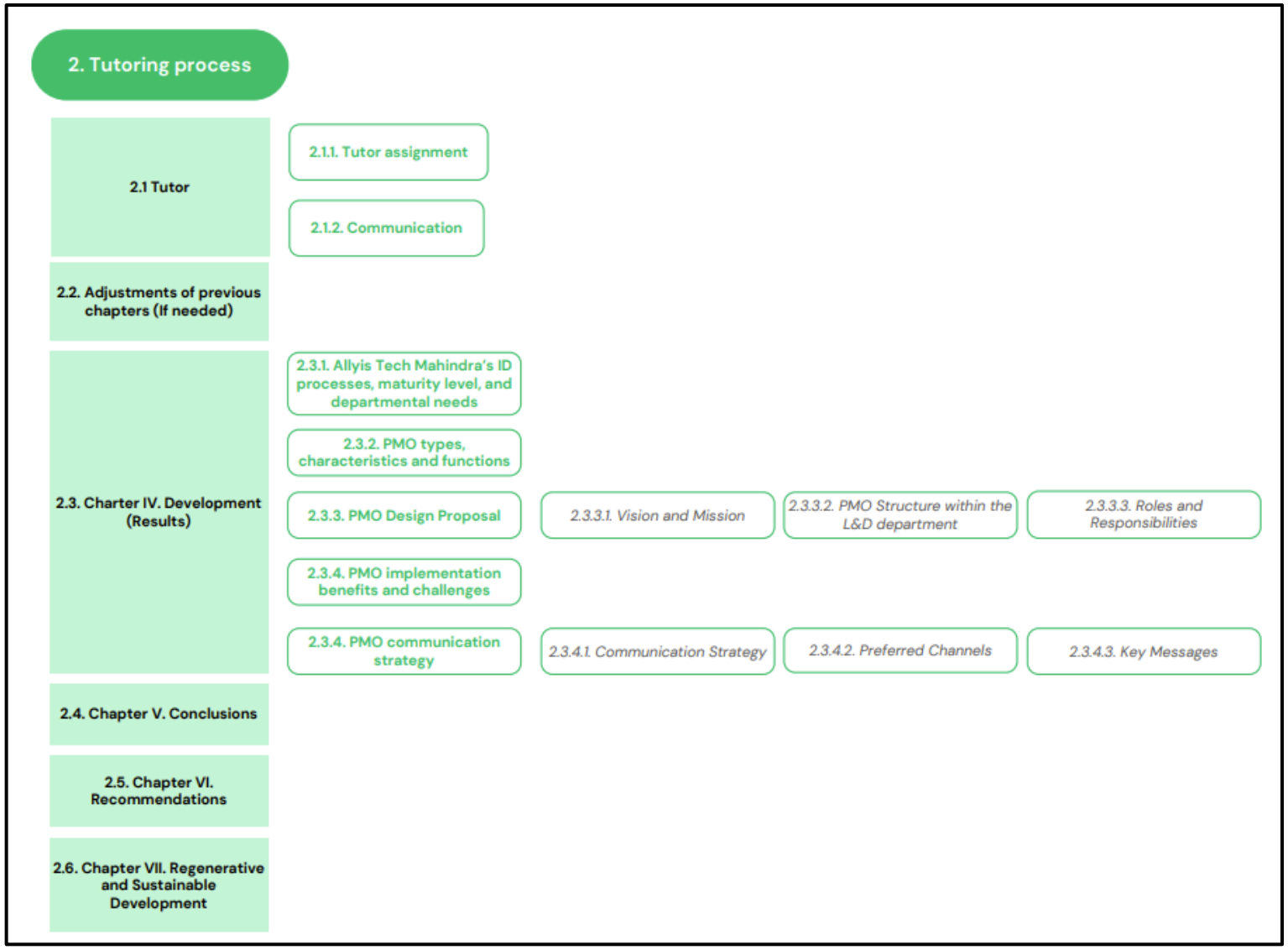
3. Tracking the number of employees participating in skill development programs, certifications, and training sessions related to sustainable practices and project management.

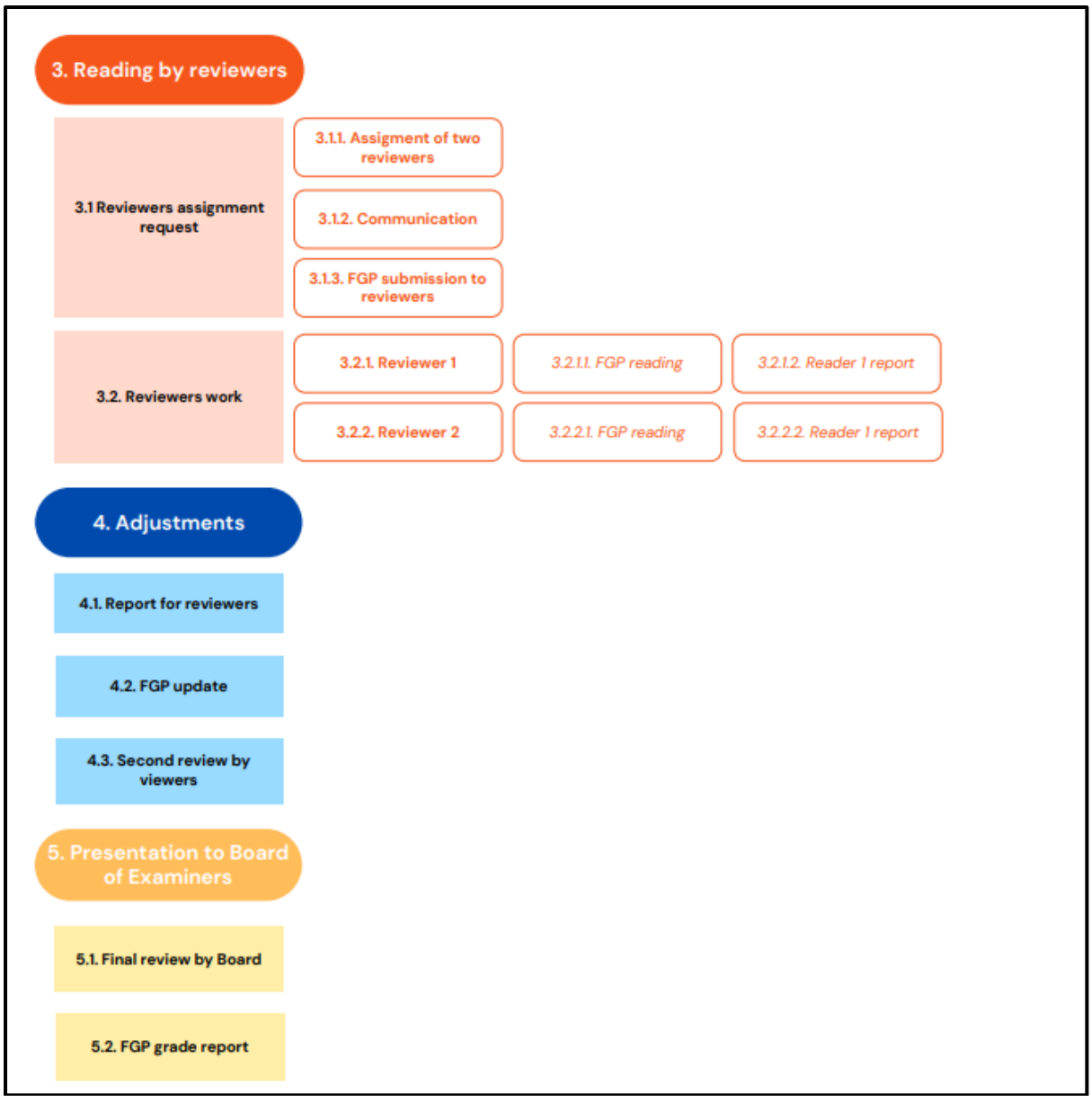
4. Monitoring the incorporation of sustainability considerations into project management processes, documentation, and decision-making frameworks.

Due to the scope of the FGP, the regenerative concept will be added as a future recommendation using Raworth's (2017) Doughnut Economics model and GPM's PRiSM methodology.

Appendix 2: FGP WBS

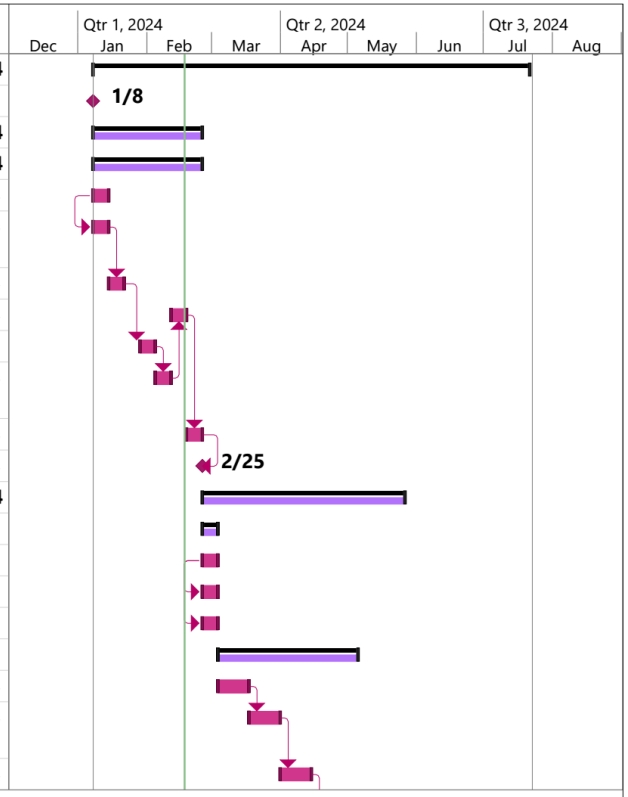



2. Tutoring process
2.1 Tutor
2.1.1. Tutor assignment
2.1.2. Communication
2.2. Adjustments of previous chapters (If needed)
2.3. Charter IV. Development (Results)
2.3.1. Allyis Tech Mahindra's ID processes, maturity level, and departmental needs
2.3.2. PMO types, characteristics and functions
2.3.3. PMO Design Proposal
2.3.3.1. Vision and Mission
2.3.3.2. PMO Structure within the L&D department
2.3.3.3. Roles and Responsibilities
2.3.4. PMO implementation benefits and challenges
2.3.4. PMO communication strategy
2.3.4.1. Communication Strategy
2.3.4.2. Preferred Channels
2.3.4.3. Key Messages
2.4. Chapter V. Conclusions
2.5. Chapter VI. Recommendations
2.6. Chapter VII. Regenerative and Sustainable Development


3. Reading by reviewers
3.1 Reviewers assignment request
3.1.1. Assigment of two reviewers
3.1.2. Communication
3.1.3. FGP submission to reviewers
3.2. Reviewers work
3.2.1. Reviewer 1
3.2.1.1. FGP reading
3.2.1.2. Reader 1 report
3.2.2. Reviewer 2
3.2.2.1. FGP reading
3.2.2.2. Reader 1 report
4. Adjustments
4.1. Report for reviewers
4.2. FGP update
4.3. Second review by viewers
5. Presentation to Board of Examiners
5.1. Final review by Board
5.2. FGP grade report

Appendix 3: FGP Schedule

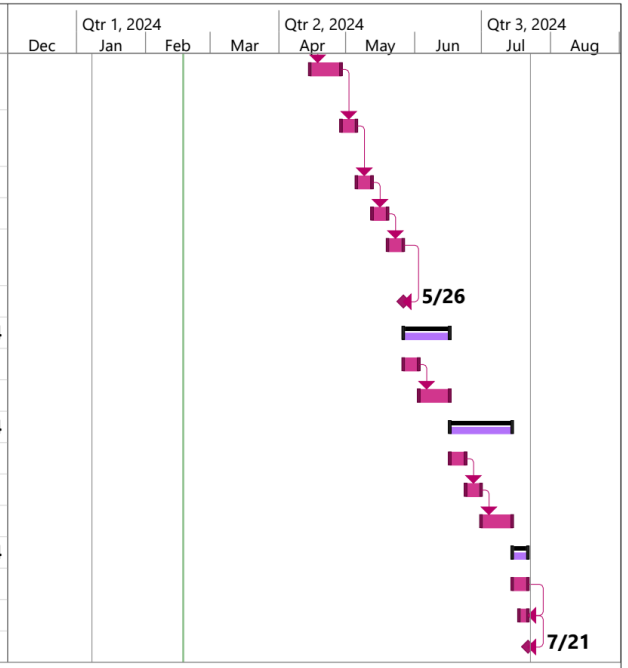
ID	WBS	Task Name	Duration	Start	Finish
1	**1**	**Final Graduation Project**	**141 days**	**Mon 1/8/24**	**Sun 7/21/24**
2	1.1	FGP Start	0 days	Mon 1/8/24	Mon 1/8/24
3	**2**	**Graduation Seminar**	**36 days?**	**Mon 1/8/24**	**Sun 2/25/24**
4	**2.1**	**FGP Deliverables**	**36 days**	**Mon 1/8/24**	**Sun 2/25/24**
5	2.1.1	Charter	6 days	Mon 1/8/24	Sun 1/14/24
6	2.1.2	Preliminary Bibliographical Research	6 days	Mon 1/8/24	Sun 1/14/24
7	2.1.3	WBS	6 days	Mon 1/15/24	Sun 1/21/24
8	2.1.4	Chapter I Introduction	6 days	Mon 2/12/24	Sun 2/18/24
9	2.1.5	Chapter II Theoretical Framew	6 days	Mon 1/29/24	Sun 2/4/24
10	2.1.6	Chapter III Methodological Framework	6 days	Mon 2/5/24	Sun 2/11/24
11	2.1.7	Annexes	6 days	Mon 2/19/24	Sun 2/25/24
12	2.2	Graduation Seminar Approval	7 days	Fri 2/16/24	Sun 2/25/24
13	**3**	**Tutoring Process**	**66 days?**	**Mon 2/26/24**	**Sun 5/26/24**
14	**3.1**	**Tutor**	**6 days?**	**Mon 2/26/24**	**Sun 3/3/24**
15	3.1.1	Tutor Assignment	6 days	Mon 2/26/24	Sun 3/3/24
16	3.1.2	Communication	6 days	Mon 2/26/24	Sun 3/3/24
17	3.2	Adjustment of previous chapters	6 days	Mon 2/26/24	Sun 3/3/24
18	**3.3**	**Chapter IV Development (Result**	**46 days**	**Mon 3/4/24**	**Sun 5/5/24**
19	3.3.1	Allyis Tech Mahindra's Analysis	11 days	Mon 3/4/24	Sun 3/17/24
20	3.3.2	PMO Types, Characteristics and Functions	11 days	Mon 3/18/24	Sun 3/31/24
21	3.3.3	PMO Design Proposal	11 days	Mon 4/1/24	Sun 4/14/24



Project: FGP Schedule 2024
Date: Sun 2/18/24

Task	Inactive Summary	External Tasks
Split	Manual Task	External Milestone
Milestone	Duration-only	Deadline
Summary	Manual Summary Rollup	Progress
Project Summary	Manual Summary	Manual Progress
Inactive Task	Start-only	
Inactive Milestone	Finish-only	

ID	WBS	Task Name	Duration	Start	Finish
22	3.3.4	PMO Implementation Benefits and Challenges	11 days	Mon 4/15/24	Sun 4/28/24
23	3.3.5	PMO Communication and Implementation Strategies	6 days	Mon 4/29/24	Sun 5/5/24
24	3.4	Chapter V Conclusions	6 days	Mon 5/6/24	Sun 5/12/24
25	3.5	Chapter VI Recommendations	6 days	Mon 5/13/24	Sun 5/19/24
26	3.6	Chapter VII Regenerative and Sustainable Development	6 days	Mon 5/20/24	Sun 5/26/24
27	3.7	Tutor Approval for Reading	0 days	Sun 5/26/24	Sun 5/26/24
28	**4**	**Reader's Review**	**16 days**	**Mon 5/27/24**	**Sun 6/16/24**
29	4.1	Reviewers Assignment Request	6 days	Mon 5/27/24	Sun 6/2/24
30	4.2	Reviewers Work	11 days	Mon 6/3/24	Sun 6/16/24
31	**5**	**Adjustments**	**21 days**	**Mon 6/17/24**	**Sun 7/14/24**
32	5.1	Report for Reviewers	6 days	Mon 6/17/24	Sun 6/23/24
33	5.2	FGP Update	6 days	Mon 6/24/24	Sun 6/30/24
34	5.3	Second Review by Reviewers	11 days	Mon 7/1/24	Sun 7/14/24
35	**6**	**Board of examiners Evaluation**	**6 days**	**Mon 7/15/24**	**Sun 7/21/24**
36	6.1	Final Review by Board	6 days	Mon 7/15/24	Sun 7/21/24
37	6.2	FGP Grade Report	3 days	Thu 7/18/24	Sun 7/21/24
38	7	FGP End	0 days	Sun 7/21/24	Sun 7/21/24



Project: FGP Schedule 2024
Date: Sun 2/18/24

Task	Inactive Summary	External Tasks
Split	Manual Task	External Milestone
Milestone	Duration-only	Deadline
Summary	Manual Summary Rollup	Progress
Project Summary	Manual Summary	Manual Progress
Inactive Task	Start-only	
Inactive Milestone	Finish-only	

Appendix 4: Preliminary bibliographical research

Allen, S. & Gardner, J. (2021). Project Management Competencies in Instructional Design. *Online Journal of Distance Learning Administration*, XXIV (2). University of West Georgia, Distance Education Center. https://ojdla.com/assets/pdf/allen_gardner242.pdf

Justification: The article highlights the complexity of instructional design projects and emphasizes the need for effective project management strategies. Therefore, it offers valuable information that can directly influence the design of Allyis Tech Mahindra's PMO proposal.

Atanasijević, S., Atanasijević, T., Janković, V. & Zahar, M. (2019). Application of e-learning technology in corporate education - Case study of Comtrade's PMO Educt portal. *The 10th International Conference on eLearning*. Belgrade, Serbia. https://www.researchgate.net/publication/337389075_APPLICATION_OF_E-LEARNING_TECHNOLOGY_IN_CORPORATE_EDUCATION_-_CASE_STUDY_OF_COMTRADE'S_PMO_EDUCT_PORTAL

Justification: The article covers topics like standardizing project management processes, PM tools, and continuous improvement. Applying these ideas at Allyis Tech Mahindra can help create a common project management language to make processes more efficient, and to support continuous employee development through a PMO.

Evanick, J. (2023, August 8). *Project Management Frameworks in Instructional Design: Exploring Approaches*. eLearning Industry. https://elearningindustry.com/project-management-frameworks-in-instructional-design-exploring-approaches

Justification: This article reviews project management frameworks and their implementation in Instructional Design projects, which can guide Allyis Tech Mahindra's PMO proposal design and implementation.

Odważny, F., Wojtkowiak, D., Cyplik, P., & Adamczak, M. (2019). Concept for measuring organizational maturity supporting Sustainable Development Goals. *LogForum Scientific Journal of Logistics*. 15 (2), 237-247. http://doi.org/10.17270/J.LOG.2019.321

Justification: This article outlines five maturity levels and provides tables to help companies determine their maturity level. It states that integrating sustainable development with organizational maturity can help reach sustainable targets. This analysis can serve as a tool for Allyis Tech Mahindra's PMO proposal, establishing a link between the organization's maturity level and sustainable development goals.

Pinto, G. O., Mello, L. C. B. B., & Spiegel, T. (2019). Best practices in implementing a project management office: a systematic review of the literature. *Systems & Management,* 14 (4*)*, 448-463. https://www.revistasg.uff.br/sg/article/view/1580/pdf_1

Justification: The article analyzes best practices, functions, models, challenges, and success factors for a PMO implementation, which can guide the design and implementation of the Allyis Tech Mahindra's PMO.

Pirotti, A., Rahim, F. A. M., & Zakaria, N. (2021). Implementation of Project Management Standards and Project Success: The Mediating Role of the Project Management

Office. *Journal of Engineering, Project, and Production Management*, 12(1), 39-46. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3923768

Justification: This article investigates the impact of project management standards (specifically, PMBOK's knowledge areas) and the mediating role of the PMO on project success. Therefore, this analysis can help connect the PMBOK knowledge areas to Instructional Design projects, which can support in the design of Allyis Tech Mahindra's PMO.

Project Management Institute. (2017*). A guide to the project management body of knowledge (PMBOK guide)*. 6th edition. ISBN: 978-1-62825-184-5

Justification: The PMBOK proposes project management principles and guidelines that can help as reference to design and implement Allyis Tech Mahindra's PMO framework and processes.

Project Management Institute. (2021). *A guide to the project management body of knowledge (PMBOK guide) and The Standard for Project Management*. 7th edition. ISBN: ISBN 978-1-62825-664-2

Justification: The PMBOK proposes project management principles and guidelines that can work as reference to design and implement Allyis Tech Mahindra's PMO framework and processes.

Sanderson, B., De Toledo, J.C., & Da Silva, I. (2019). The Effect of Stakeholders' Satisfaction and Project Management Performance on Transitions in a Project Management Office, *IEEE Access*, vol. 7, 169385-169398. https://ieeexplore.ieee.org/abstract/document/8911308

Justification: This article discusses the importance of recognizing issues in project management, performance, and stakeholder satisfaction to drive changes in PMOs. The Brazilian case study describes PMO implementation stages and their impact on projects, showing that stakeholder dissatisfaction often leads to tensions. These lessons can help creating Allyis Tech Mahindra's PMO design proposal.

Silvius, G. (2021). The role of the Project Management Office in Sustainable Project Management. *Procedia Computer Science*, Vol. 181, 1066-1076, ISSN 1877-0509, https://www.sciencedirect.com/science/article/pii/S1877050921003513

Justification: The article explores two relevant concepts for this FGP, which are sustainable project management and PMOs. It acknowledges that PMO's practices cannot be generalized for all companies and outlines some basic tasks and responsibilities. The main focus is on how PMOs can support more sustainable project management practices. This approach can provide ideas for Allyis Tech Mahindra's PMO design proposal, not only in terms of project management ,but also in the incorporation of sustainable and regenerative ideas.

Appendix 5: ID Processes Data Collection Tools

ID Processes Survey

1. On a scale of 1 to 5, how would you rate the effectiveness of the current ID processes in our department? (*1 Very Ineffective – 5 Very Effective*)
2. How well do you think the current ID processes support the development of engaging and effective learning materials? (*1 Not Well at All – 5 Very Well*)
3. Are you provided with adequate resources and support to execute the ID processes effectively? (*1 Strongly Disagree – 5 Strongly Agree*)
4. How often do you receive feedback on your contributions to the ID processes? (*1 Rarely or Never – 5 Always*)

ID Processes Interview / Focus Group questions

1. Based on your experience, briefly list the main responsibilities or activities of the ID department.
2. In your opinion, what are the strengths and weaknesses of the current ID processes?
3. How do you think project management processes impact your daily work and the department's performance?
4. What types of materials or resources do you believe could improve your day-to-day work tasks and responsibilities?
5. Please share any additional comments or suggestions you have for improving the ID processes within our department.

Appendix 6: L&D Department Maturity Assessment Survey

ID Department - Maturity Analysis

Please select the maturity level that best describes your department's current state for each knowledge area. If you are unsure, please select the option that best reflects the department current circumstances.

Understanding Maturity Levels:

1. **LEVEL 1: Initial process** – lack of processes and documentation to work together on the project, ad hoc tasks, lack of ways to measure success.
2. **LEVEL 2: Structured process and standards** – different project management methods are used in the organization, standardization at the level of specific teams, project success dependent on the team.
3. **LEVEL 3: Organizational standards and institutionalized process** – a standardized way of managing projects across the organization, using metrics, implementing new processes when necessary.
4. **LEVEL 4: Managed process** – transparent project management processes, the use of documentation, planning how to implement future projects using metrics (analysis of results).
5. **LEVEL 5: Optimizing process** –improving project management activities, creating strategic plans for the future, maintaining efficiency.

1. Project Integration Management

Includes the processes and activities to identify, define, combine, unify, and coordinate the various processes and project management activities within the Project Management Process Groups. Main components:

- Develop Project Charter
- Develop Project Management Plan
- Direct and Manage Project Work
- Monitor and Control Project Work
- Perform Integrated Change Control
- Close Project or Phase

How do you rate the department's expertise in this particular knowledge domain?

- ◯ LEVEL 1 Initial process
- ◯ LEVEL 2 Structured process and standards
- ◯ LEVEL 3 Organizational standards and institutionalized process
- ◯ LEVEL 4 Managed process
- ◯ LEVEL 5 Optimizing process

2. Project Scope Management

Includes the processes required to ensure the project includes all the work required, and only the work required, to complete the project successfully. Main components:

- Plan Scope Management
- Collect Requirements
- Define Scope
- Break work into manageable tasks (work packages)
- Validate Scope
- Control Scope

How do you rate the department's expertise in this particular knowledge domain?

- ◯ LEVEL 1 Initial process
- ◯ LEVEL 2 Structured process and standards
- ◯ LEVEL 3 Organizational standards and institutionalized process
- ◯ LEVEL 4 Managed process
- ◯ LEVEL 5 Optimizing process

3. Project Schedule Management

Includes the processes required to manage the timely completion of the project. Main components:

- Plan Schedule Management
- Define Activities
- Sequence Activities
- Estimate Activity Durations
- Develop Schedule
- Control Schedule

How do you rate the department's expertise in this particular knowledge domain?

- ◯ LEVEL 1 Initial process
- ◯ LEVEL 2 Structured process and standards
- ◯ LEVEL 3 Organizational standards and institutionalized process
- ◯ LEVEL 4 Managed process
- ◯ LEVEL 5 Optimizing process

4. Project Cost Management

Includes the processes involved in planning, estimating, budgeting, financing, funding, managing, and controlling costs so the project can be completed within the approved budget. Main components:

- Plan Cost Management
- Estimate Costs
- Determine Budget
- Control Costs

How do you rate the department's expertise in this particular knowledge domain?

- ◯ LEVEL 1 Initial process
- ◯ LEVEL 2 Structured process and standards
- ◯ LEVEL 3 Organizational standards and institutionalized process
- ◯ LEVEL 4 Managed process
- ◯ LEVEL 5 Optimizing process

5. Project Quality Management

Includes the processes for incorporating the organization's quality policy regarding planning, managing, and controlling project and product quality requirements, in order to meet stakeholders' expectations. Main components:

- Plan Quality Management
- Perform Quality Assurance
- Control Quality

How do you rate the department's expertise in this particular knowledge domain?

- ◯ LEVEL 1 Initial process
- ◯ LEVEL 2 Structured process and standards
- ◯ LEVEL 3 Organizational standards and institutionalized process
- ◯ LEVEL 4 Managed process
- ◯ LEVEL 5 Optimizing process

6. Project Resource Management

Includes the processes to identify, acquire, and manage the resources needed for the successful completion of the project. Main components:

- Plan Resource Management
- Acquire Resources
- Develop Team
- Manage Team
- Control Resources

How do you rate the department's expertise in this particular knowledge domain?

- ◯ LEVEL 1 Initial process
- ◯ LEVEL 2 Structured process and standards
- ◯ LEVEL 3 Organizational standards and institutionalized process
- ◯ LEVEL 4 Managed process
- ◯ LEVEL 5 Optimizing process

7. Project Communications Management

Includes the processes required to ensure timely and appropriate planning, collection, creation, distribution, storage, retrieval, management, control, monitoring, and ultimate disposition of project information. Main components:

- Plan Communications Management
- Manage Communications
- Control Communications

How do you rate the department's expertise in this particular knowledge domain?

- ◯ LEVEL 1 Initial process
- ◯ LEVEL 2 Structured process and standards
- ◯ LEVEL 3 Organizational standards and institutionalized process
- ◯ LEVEL 4 Managed process
- ◯ LEVEL 5 Optimizing process

8. Project Risk Management

Includes the processes of conducting risk management planning, identification, analysis, response planning, response implementation, and monitoring risk on a project. Main components:

- Plan Risk Management
- Identify Risks
- Perform Qualitative Risk Analysis
- Perform Quantitative Risk Analysis
- Plan Risk Responses
- Implement Risk Responses
- Monitor Risks

How do you rate the department's expertise in this particular knowledge domain?

- ◯ LEVEL 1 Initial process
- ◯ LEVEL 2 Structured process and standards
- ◯ LEVEL 3 Organizational standards and institutionalized process
- ◯ LEVEL 4 Managed process
- ◯ LEVEL 5 Optimizing process

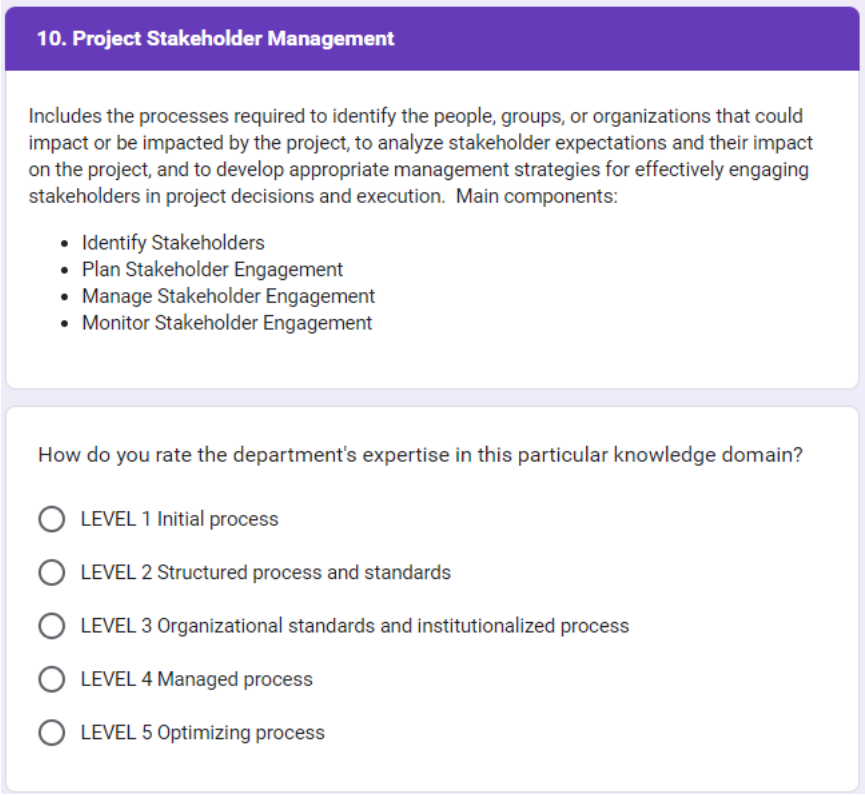
9. Project Procurement Management

Includes the processes necessary to purchase or acquire products, services, or results needed from outside the project team. Main components:

- Plan Procurement Management
- Conduct Procurements
- Control Procurements
- Close Procurements

How do you rate the department's expertise in this particular knowledge domain?

- ◯ LEVEL 1 Initial process
- ◯ LEVEL 2 Structured process and standards
- ◯ LEVEL 3 Organizational standards and institutionalized process
- ◯ LEVEL 4 Managed process
- ◯ LEVEL 5 Optimizing process



10. Project Stakeholder Management

Includes the processes required to identify the people, groups, or organizations that could impact or be impacted by the project, to analyze stakeholder expectations and their impact on the project, and to develop appropriate management strategies for effectively engaging stakeholders in project decisions and execution. Main components:

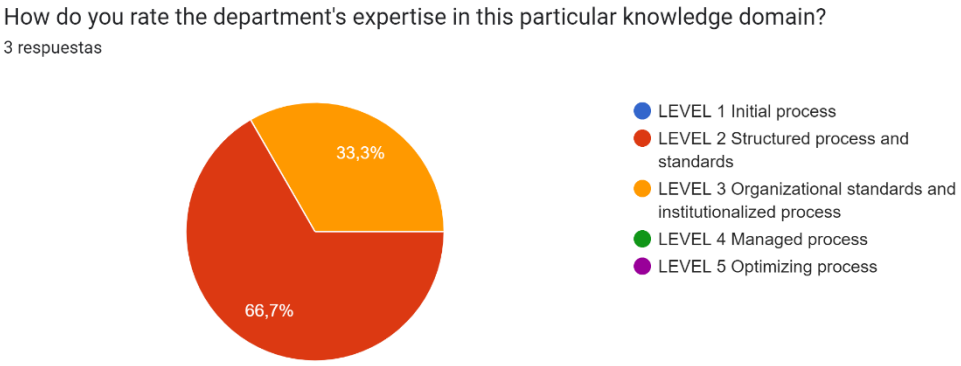
- Identify Stakeholders
- Plan Stakeholder Engagement
- Manage Stakeholder Engagement
- Monitor Stakeholder Engagement

How do you rate the department's expertise in this particular knowledge domain?

- ○ LEVEL 1 Initial process
- ○ LEVEL 2 Structured process and standards
- ○ LEVEL 3 Organizational standards and institutionalized process
- ○ LEVEL 4 Managed process
- ○ LEVEL 5 Optimizing process

Appendix 7: Maturity Assessment Results

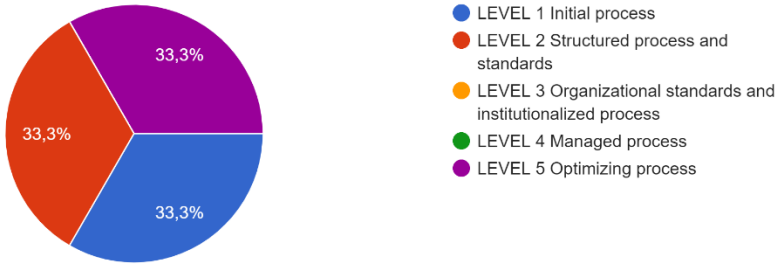
Project Integration Management



Project Scope Management

How do you rate the department's expertise in this particular knowledge domain?

3 respuestas



Project Schedule Management

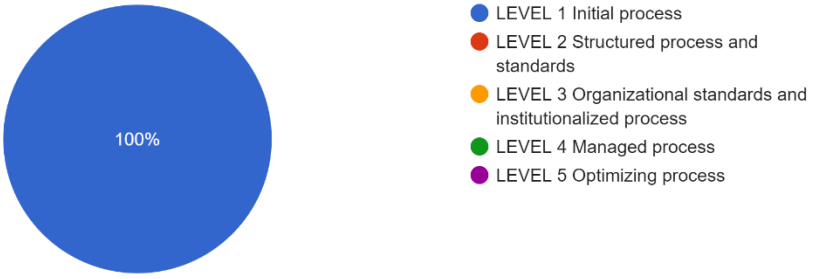
How do you rate the department's expertise in this particular knowledge domain?

3 respuestas

Project Cost Management

How do you rate the department's expertise in this particular knowledge domain?

3 respuestas



Project Quality Management

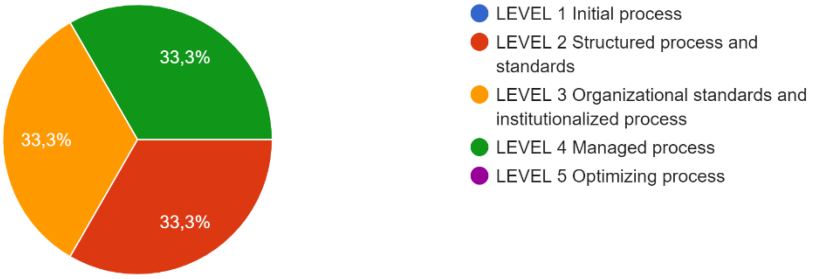
How do you rate the department's expertise in this particular knowledge domain?

3 respuestas

Project Resource Management

How do you rate the department's expertise in this particular knowledge domain?

3 respuestas



Project Communications Management

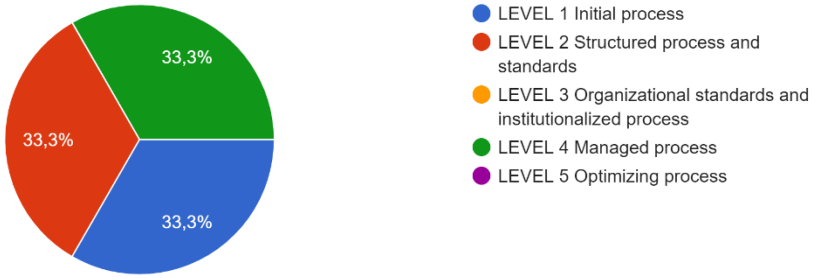
How do you rate the department's expertise in this particular knowledge domain?

3 respuestas

Project Risk Management

How do you rate the department's expertise in this particular knowledge domain?

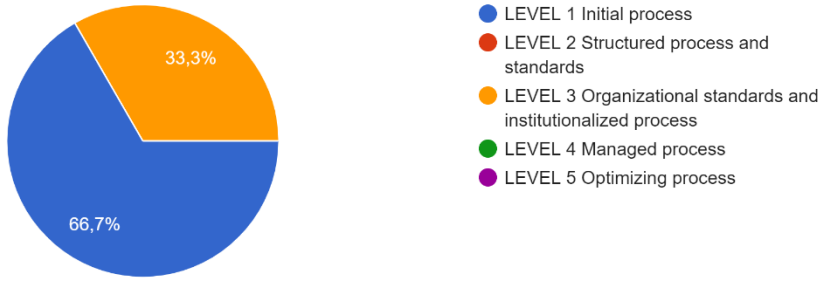
3 respuestas



Project Procurement Management

How do you rate the department's expertise in this particular knowledge domain?

3 respuestas



Project Stakeholder Management

How do you rate the department's expertise in this particular knowledge domain?

3 respuestas

Appendix 8: Project Management Office (PMO) Data Collection Tools

Project Management Office (PMO) Survey

1. How essential do you believe it is for the ID department to establish a Project Management Office (PMO)? (*1 Not Essential at All – 5 Extremely Essential*)
2. How do you anticipate a PMO would impact on the overall efficiency and effectiveness of project delivery within the ID department? (*1 Decrease in Efficiency and Effectiveness – 5 Significant Improvement*)
3. What primary benefits do you expect that the implementation of a PMO would bring to the ID department? (*Select all that apply*)
    - Better organization and alignment of project goals.
    - Improved efficiency in managing resources.
    - Clearer guidelines and standardized processes.
    - Improved ability to identify and mitigate risks.
    - More visibility into project progress.
    - Improved teamwork and collaboration.
    - Smoother communication channels.
    - Clearer understanding of project performance.
    - Other:
4. In your experience, what are the key success factors for a PMO implementation in an organization?
    - Strong leadership support.
    - Clearly defined roles and responsibilities.
    - Adequate training and resources.
    - Effective communication channels.
    - Continuous performance monitoring and improvement.
    - Other:
5. What communication channels would you prefer for receiving updates and information about the PMO implementation?
    - Email

- Teams
- Team Meeting
- One-on-one
- Internal Newsletter
- Other:

6. On a scale of 1 to 5, how satisfied are you with the level of transparency in communication within our ID department? (*1 Very Dissatisfied – 5 Very Satisfied*)
7. On a scale of 1 to 5, how confident are you in the ID department's ability to successfully implement and sustain a PMO? (*1 Not Confident at All – 5 Extremely Confident*)

Project Management Office (PMO) Interview / Focus Group questions

1. Can you describe your role within the organization and how it relates to project management or the potential implementation of a PMO?
2. What do you consider to be the most important characteristics or requirements of a successful PMO?
3. From your perspective, what are the key functions that the PMO should fulfill within our department?
4. What roles and responsibilities do you believe should be assigned to the PMO team members?
5. What potential challenges do you foresee in implementing a PMO within the ID department, and how do you suggest addressing them?
6. What resources and support do you think are necessary for the effective functioning of the PMO?
7. What communication strategies do you think would be most effective in informing the team about the PMO proposal and implementation?

Appendix 9: Philologist Credentials

Universidad Nacional

Por cuanto:

Kevin Francisco Guerrero González

ha cumplido con todos los requisitos reglamentarios, se le confiere el grado académico de

MAGISTER EN TRADUCCIÓN INGLÉS-ESPAÑOL

En fe de lo cual suscriben los funcionarios autorizados y se agrega el sello de la Institución

Dado en la ciudad de Heredia, República de Costa Rica, a los 17 días del mes de mayo del 2022

Presidente
Sistema de Estudios de Posgrado

Decana
Facultad de Filosofía y Letras

Rector

Registrado en el Libro de títulos al tomo 38, folio 28, asiento 277

ción: 116400372

Appendix 10: Philological Dictum

Academic Advisor
Master's Degree in Project Management
Universidad para la Cooperación Internacional (UCI)
May 5th, 2024

Dear Academic Advisor,

Re: **DESIGN PROPOSAL FOR ESTABLISHING A PROJECT MANAGEMENT OFFICE IN ALLYIS TECH MAHINDRA'S LEARNING AND DEVELOPMENT DEPARTMENT**

I, Kevin Francisco Guerrero González, professional translator, hereby confirm that; after various thorough revisions, María Luisa Román López has already made all the corrections to the Final Graduation Project document as advised.

In my opinion, the document does now meet the literary and linguistic standards expected of a student for a degree at the master's level.

Sincerely,

M.A. Kevin Francisco Guerrero González
Id number: 1-1640-0372
Cell phone: 8942-1251