

eLearning Development

Outsourced
Project Management
Competencies



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Table of content:

1. Scope	3
2. Outsourcing methodologies	3
3. Development methodology	3
4. Risk Management	7
5. Quality Assurance	8
6. Project Management	8
7. Subject Matter Expert (SME)	10
8. Change Management	11
9. Virtual Team Collaboration	12
10. Summary	12



1. Scope

This document outlines the outsourcing engagement models and methodologies of InfoPro Learning (InfoPro). It covers the outsourcing models and its details, instructional design methodology, and InfoPro's approach to risk management, quality assurance, and project management. In addition, it also provides insight into InfoPro sensitivity to the functioning of virtual work environment, which is critically important for a successful outsourcing engagement.

The intent of this document is to enrich the understanding of InfoPro's development capabilities and build the ground for further discussion for a mutually beneficial engagement.

2. Outsourcing Models

InfoPro Learning has expertise in two types of outsourcing models:

- a. Full Lifecycle Outsourcing Model
- b. Development Outsourcing Model

In **Full Lifecycle Outsourcing Model**, clients typically outsource all/most of the functions that belong to the following areas:

- Learning and Instructional Design
- Interface Design (Look and Feel)
- Storyboarding
- Media Creation
- Integration
- Quality Assurance
- Delivery

In **Development Outsourcing Model**, clients may choose to outsource some of the above-mentioned activities. For example, a client might choose to develop the storyboards internally and outsource the media creation and integration tasks.

In both these models, the development methodologies would be similar – the only difference being where the client input starts.

3. Development Methodology

The assembly line mechanism, which holds the entire development process together, has been typically devised to manage large-scale full lifecycle projects cost-effectively and optimize the returns on your training budgets. Two important milestones in the development process are the project kickoff and prototyping the learning solution, which, in turn, set the platform for full-fledged development.

- a. Kickoff** – The kickoff marks the formal start of the project. It offers the opportunity to understand the key project requirements and evaluation parameters. It entails handing over of reference material, introducing teams, and sharing project plan and other management processes (such as Who is the SME, review turnaround times, communication protocol, status reports etc)
- b. Prototype** – Envisioning the learning solution, creating templates for production, programming the base engine
- c. Learning/Instructional Design (ISD) & Storyboarding** – Conceptualizing the instructional strategy, creating training content outline based on the training objectives specified by the client, creating training storyboards
- d. Media Creation Phase** - Visualizing and creating media such as graphics, animations, and simulations
- e. Integration Phase** – Integrating storyboard and media within the user interface, programming of the pages, and creating of interactive elements
- f. Internal Review** – Reviewing the training program for quality assurance and mapping it to quality standards
- g. QA Fixes** – Fixing issues arising from internal review
- h. Delivery** - Delivering learning modules to the client for review



Graphically, a typical development cycle would look like:

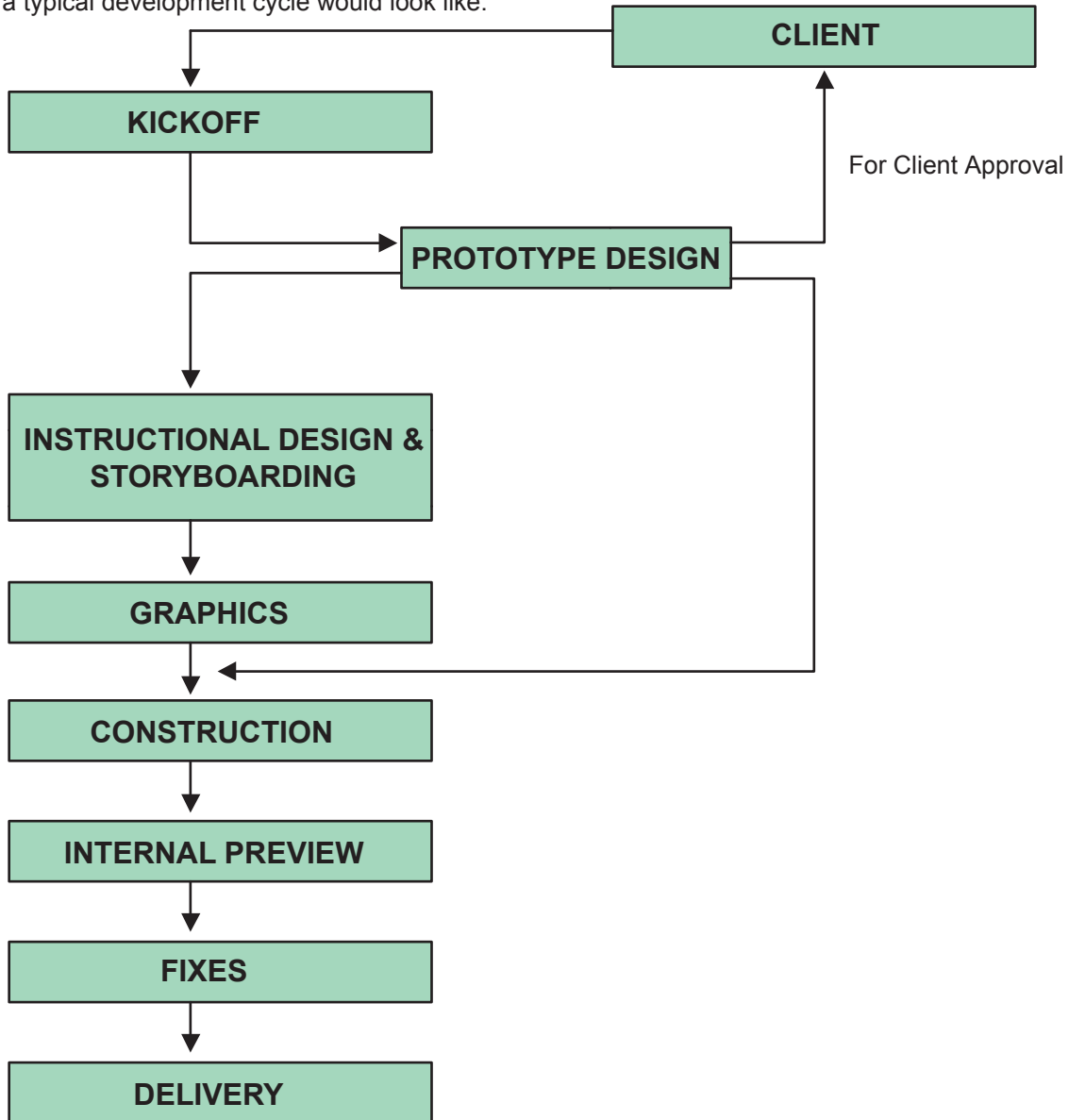


Figure 1: Development Cycle

Please note that though internal review is shown as a separate block in the DLC, it is not the only review/QA cycle for the project. In fact, each stage, ISD/storyboarding, graphics, and integration includes an internal review, ensuring that the exiting deliverable meets the quality metrics. During the stage of internal review, a senior QA person – called the Internal Client – analyzes the integrated course from an end-user’s perspective, making sure that the training program is engaging, instructionally sound, and delivers the intended learning value.

Now let’s take a closer look at the typical inputs, processes, and outputs of different phases in the development lifecycle, starting with the kickoff phase:

a. Kickoff

1. Inputs

The inputs in this phase comprise all required documents and identification of resources for the project to be successfully completed. The inputs will depend on the model adopted – Full Lifecycle or Development Model. For example, in Development Outsourcing Model, where the client has outsourced the integration of the course, the inputs may include the final storyboards, the final graphics, animations, the GUI, the base engine, etc. However, in the full lifecycle engagement model, the inputs will include training objectives and key requirements, reference material, subject matter expertise, etc.



2. Process

This phase focuses on analyzing the key training and learning requirements, profiling the model learner based on audience analyses, and collating all required material for the development, and to identify key communication links, such as the project manager at the client end, escalation points, timelines, communication guidelines like project reporting and periodic meetings, etc., as well as introducing development team and contact points at InfoPro Learning.

3. Outputs

The outputs of this process is setting up the platform for development, like servers, folder structures and access permissions, Online Project Management entries, project management tools, etc.

b. Prototype

1. Inputs

The information from the kickoff process constitutes the input for creating a prototype, with an objective of enriching the understanding of the engagement metrics, the solution and key learning needs, and our all-round development capabilities. This phase is typically executed only in Full Lifecycle Model.

2. Process

Based on the requirements from the RFP, Agreement, and System Requirement Specification document, if available, a prototype is created. This prototype might be created using the same environment that will ultimately be used for development, and most of the features will be functional. This phase also provides the client with insights into the look-and-feel of the product.

Also, this phase is used internally to develop productivity and efficiency enhancement tools and utilities, and create/fine-tune processes to speed up development.

3. Outputs

The output of this phase will be an approved working prototype, complete with the GUI and key features.

c. Learning Design/ Storyboarding Phase - Creation of Training Content Outline using the training objectives specified by the client, Creation of Training Storyboards

1. Inputs

Inputs will include:

- a. Training objectives received from the client
- b. Reference material received from the client
- c. SME inputs – might include overview and topic-specific training on the subject

2. Process

- a. The learning design focuses on the instructional strategy that will be appropriate for the targeted audience and the intended learning outcomes.
- b. ISD (Instructional Strategy Document) outlines the contents in a hierarchical manner, explicitly stating the terminal and enabling objectives, and the depth and breadth at which the subject will be covered.
- c. ISD is reviewed by a QA and the SME for instructional integrity and technical accuracy, respectively.
- d. Storyboarding begins with the finalization of ISD. This includes the textual content of each frame and inputs for graphic/simulation visualization.
- e. The script is again reviewed by QA and SME for instructional completeness and language, and technical accuracy, respectively.
- f. Work on media creation (graphics, simulations etc.) starts with the finalization of storyboard.

3. Outputs

The final outputs from this phase would include:

- a. Final learning design and ISD
- b. Final storyboard



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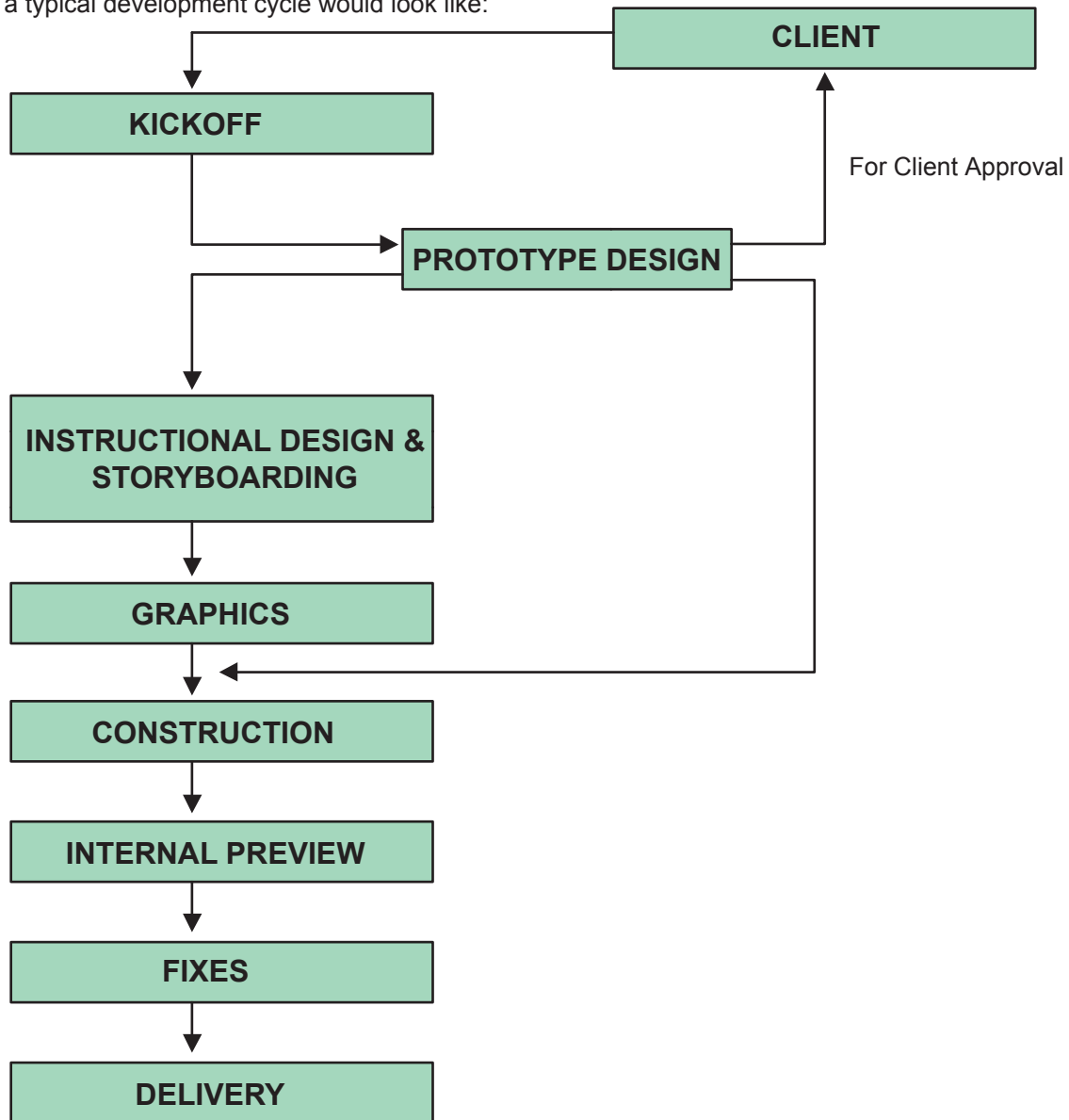


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Also, the typical delivery methods (depending on the size and kind of content) could be:

1. Upload to a commonly-agreed FTP site, and an intimation of the same is sent to the client
2. A mail is sent to the client with the deliverable as attachment
3. A CD is written with all the contents, and is couriered to the client

Instructional Design Methodology

The instructional design methodology strikes synergy between the user needs and tasks, the business needs of the organization, and the solution. Based on the business objectives-user needs-user tasks continuum, our design phase seeks to map the envisioning of the solution to the requirements of your business. It also undergoes stringent iterative test cycles to benchmark the design against the business goals before the design is delivered to the assembly line for development of the proposed solution.

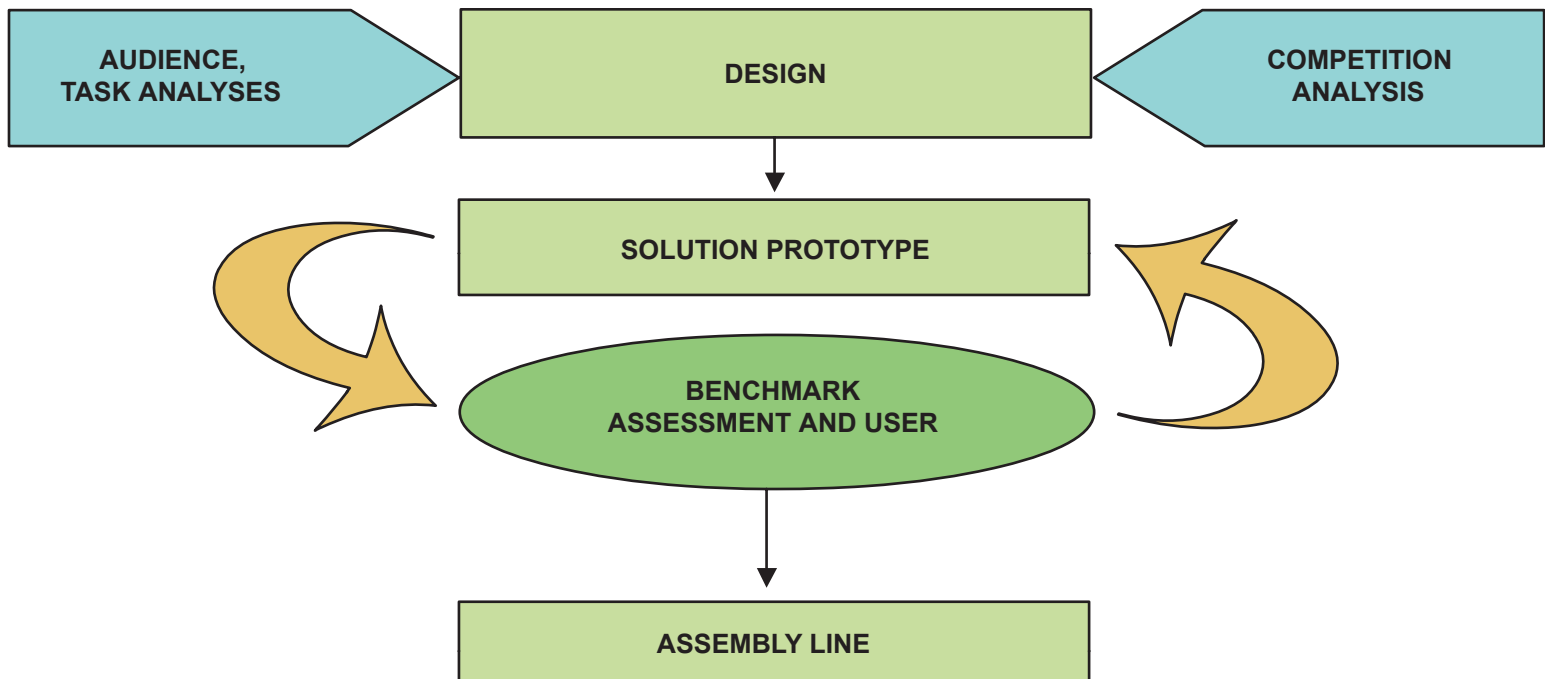


Figure 2: Instructional Design Methodology

Audience and task analyses, together with competition analysis to identify how these tasks are being currently performed, leads to the product design and prototyping. The prototype undergoes a testing and evaluation cycle to map to the proposed solution to the requirements. Next, the prototype moves to the assembly line for large-scale production. *(Note: Though audience, task, and competition analyses are taken into account to arrive at benchmark metrics, the development of prototype is not a mandatory step.)*

With the framework that is prescribed by the ADDIE model, the instructional design and development methodologies cumulatively focus on delivering end-to-end solutions, beginning from the training need analysis to the design and development of the learning solution, and, finally, customizing the solution for the delivery environment, implementation, and evaluation.

4. Risk Management Plan

With the understanding that no project is risk-free, we are committed to identify the risks early and analyze and address them appropriately through mitigation strategies and contingency plan. Our upfront, proactive approach differentiates us from reactive risk management strategies.

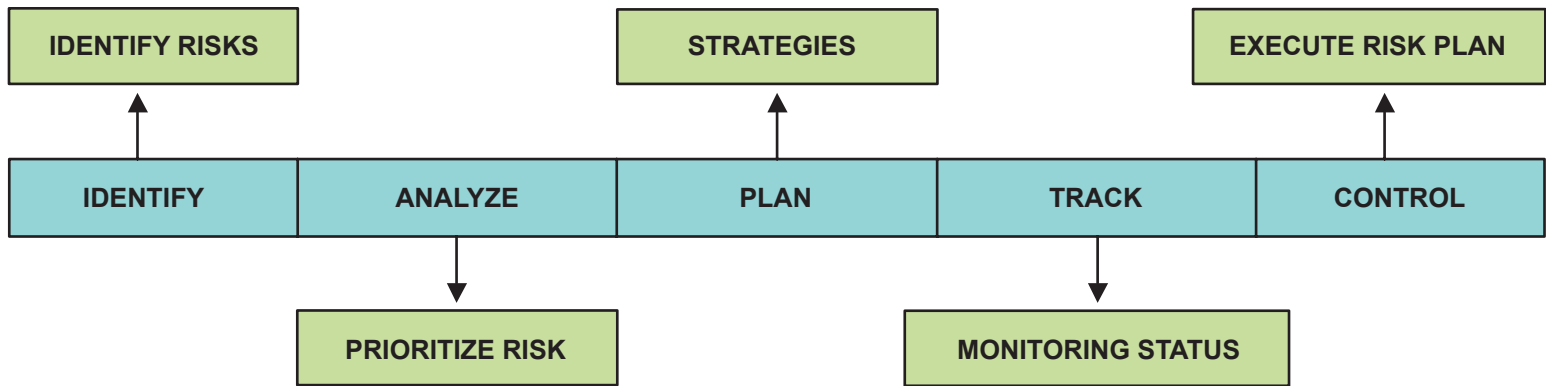


Figure 3: Risk Management Plan

We regularly re-visit the risk management plan to include new risks and mark current risks as closed.

5. Quality Assurance Plan

InfoPro prides itself in taking iterative testing to ensure conformity between the deliverable and the performance requirements. Our quality assurance focuses not only on defect prevention and tracking, but also maps the products to the desired user experience.

Our quality assurance is modeled on the Plan-Do-Check-Act (PDCA) approach. It allows us to monitor and evaluate the QA processes against the solution objectives and, if necessary, rollout corrective actions efficiently.

The key areas of QA are:

- Functionality
- Usability
- Regression

To facilitate participative quality assurance for early detection, documentation, and closure of issues, InfoPro offers **Issues Management System**. Among other things, the system enables users to register issues, assign priority (critical, high, medium, and low) to them, tag comments with issues, view the discussion thread on each issue and the issue status, and generate reports. The system not only facilitates efficient tracking of bugs, but also acts as a forum for seeking clarification and exchange of information. Typically, the people logging the issues also close the issues, ensuring that the issues are satisfactorily closed.

With the objective of building quality metrics in the development life cycle of the project, InfoPro employs **the Gate model**, thereby ensuring that the project execution takes into account the key success factors.

The Gate model is typically useful because people from different competency centers such as content, graphics, audio, and course development may be working on the same project during the various stages of execution. Therefore, as the project moves from one stage to another, we strive for the desired quality of the deliverables by implementing the entry and exit gate criteria for each level. This approach focuses the activities within a stage on meeting the gate criteria for the deliverable, thereby, incorporating accountability for quality in the project team.

Focusing on quality at source facilitates incorporating the highest customer value with the least development effort. By mapping the development effort with the quality metrics, we optimize the development life cycle and minimize re-work.

6. Project Management

InfoPro appreciates its clients' commitments to their customers, and to deliver the satisfaction, we have a team of experienced project managers, and very stable and time-proven project management processes, which ensures timely delivery of high quality training.



Outsourcing Methodology for Training Content Development

To efficiently handle project management nuances and provide greater transparency to our customers, we use a variety of tools, which are customizable for specific requirements. One such proprietary tool used by InfoPro Learning is Online Project Manager (OPM). OPM is hosted on our Intranet website and is available to our clients based on a unique user ID and password, which helps us in estimating and tracking effort spent on the project, scheduling and monitoring the project at a task level, analyzing resource utilization, and tracking billing information, apart from serving as an input to our HR systems. A sample report from the OPM – Project Activity Summary Report – highlighting the total effort utilized for developing the given project (NTG-NG05) is given below:

Project Activity Summary Report - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites Media

OPM Reports

Project Activity Summary Report

Subproject Code: NTG-NG05-456-100 Subproject Name: 15456 Your Dell Axim X50

Report Start Date: 01/01/2005 Report End Date: 06/06/2005

Milestones	Tasks	Reg. Hours	Reg. Days	OT Hours	OT Days	Total Hours	Total Days	% of Total
Analysis	Review	2.00	0.24	0.00	0.00	2.00	0.24	0.34
Design-ECO	Creating	20.50	2.41	0.00	0.00	20.50	2.41	3.52
	Reviewing	4.00	0.47	0.00	0.00	4.00	0.47	0.69
	Fixing External QA	1.00	0.12	0.00	0.00	1.00	0.12	0.17
StoryBoard	Creating	76.00	8.94	1.00	0.12	77.00	9.06	13.21
	Reviewing	21.75	2.56	0.00	0.00	21.75	2.56	3.73
	Fixing Internal QA	44.00	5.18	2.50	0.29	46.50	5.47	7.98
	Fixing Internal SME	21.50	2.53	0.00	0.00	21.50	2.53	3.69
Graphics	Fixing Graphics Review	51.50	6.06	15.25	1.79	66.75	7.85	11.45
	Creation - Graphics	81.00	9.53	9.50	1.12	90.50	10.65	15.52
	Visualization - Graphics	24.00	2.82	0.00	0.00	24.00	2.82	4.12
Construction	Creating	25.00	2.94	2.00	0.24	27.00	3.18	4.63
	Review	4.00	0.47	0.00	0.00	4.00	0.47	0.69
	Fixing	7.50	0.88	0.00	0.00	7.50	0.88	1.29
Course Review	Review	27.00	3.18	0.50	0.06	27.50	3.24	4.72
	Fixing Internal QA	59.00	6.94	4.00	0.47	63.00	7.41	10.81
Audio	Audio Review	3.00	0.36	0.00	0.00	3.00	0.36	0.51
	Audio Fixing Internal review	1.50	0.18	0.00	0.00	1.50	0.18	0.26
Meeting	Attending	3.50	0.41	0.00	0.00	3.50	0.41	0.60
Others	Misc	59.50	7.00	11.00	1.29	70.50	8.29	12.09
Total		537.25	63.21	45.75	5.38	583.00	68.59	

Done Internet

Figure 4: Online Project manager



Apart from such tools, InfoPro Learning understands the importance of working closely with clients. Therefore, we include meetings in our schedule. These meetings are:

- a. Project Kickoff Meeting
- b. Weekly Status Meetings (this is accompanied by a Weekly Status Report of the project sent at least a day in advance for the Weekly Status Meeting). This meeting is typically conducted through a tele-conference.
- c. Quarterly Business Meeting. This is a face-to-face meeting conducted at a mutually agreed location, where apart from the consolidated status for the quarter, business-related and process-related discussions are also initiated. This forum is also used to discuss areas of improvement.
- d. Post-project Wind-up Meeting. This is used to reconcile all the milestones of the project, project wind-up, and share feedback for further improvements.
- e. Impromptu Meetings. These are exception-based meetings, resulting out of any situation that were unforeseen during the start of the project, and can be initiated by either party anytime during the course of the project.

Another aspect of project management is the location of the Project Manager (PM). Since the development center is in India, and the clients are typically in the US, InfoPro Learning works with two options depending on the comfort level of the customers:

- a. Development Team in India and the PM and Account Manager in the US
- b. Development Team and the PM in India and Account Manager in the US

There are pros in both the cases. For example, in the first option, the customers have a greater control as the PM works in the same (or very close) to the time zone in which the client works. This helps the client to interact more with the PM, can organize face-to-face meetings, and subsequently the PM has a clearer perspective of clients requirements, which translates to fine-tuning development processes and specifications back in India for the development team.

However, if the PM works from India, the PM can interact more with the team, and by weeding out potential situations in the development process can make sure that the delivery is on-time and meets all quality requirements.

7. Subject Matter Expert (SME)

In cases, where our clients are unable to provide Subject Matter Expertise on a training subject area, InfoPro Learning works with their own SMEs.

For most IT-related technical subjects, InfoPro Learning brings in an in-house SME. However, for situations where the SMEs are not available in the required subject area, InfoPro Learning has tied up and maintains a panel of various SME Outsourcing companies. The process that is typically followed for recruiting an SME for a project is as follows:

- a. The SME specifications are finalized after discussions with the customer/ an SME nominated by the client
- b. Based on these specifications, InfoPro Learning shortlists resumes of potential SMEs either in-house or from external SME agencies
- c. The short listed candidates are interviewed by InfoPro Learning internally using their existing resources
- d. The candidates who pass internal assessment are interviewed by the client/ an SME nominated by the client
- e. Approved candidates are inducted into the project. The induction program covers InfoPro Learning and Customer's expectations from the SME, the process for development, timelines and schedules, and sharing development calendar.

Depending on the volume and type of the project, there could be multiple SMEs for a project, and these SMEs could either be on-site (with the development team), or remote. In cases where the SME is operating remotely, stringent standards for turn-around time and common time for clarifications from the development team is ensured.



8. Change Management

InfoPro's development methodology emphasizes a thorough audience, task, and competition analyses before designing the solution. This ensures that the solution completely addresses the organizational and learning needs, and delivers business value.

However, InfoPro recognizes the near-inevitability of change, especially for long-term projects with a diverse set of modules ranging from skills to processes and procedures. Therefore, we have a planned approach to manage change with the objective of maximizing the collective effort of the people involved in the change. Whether the change is in response to changes in the macro-environment (reactive) or is proactive to achieve a desired goal, we typically follow the change management process that helps understand and incorporate the change efficiently.

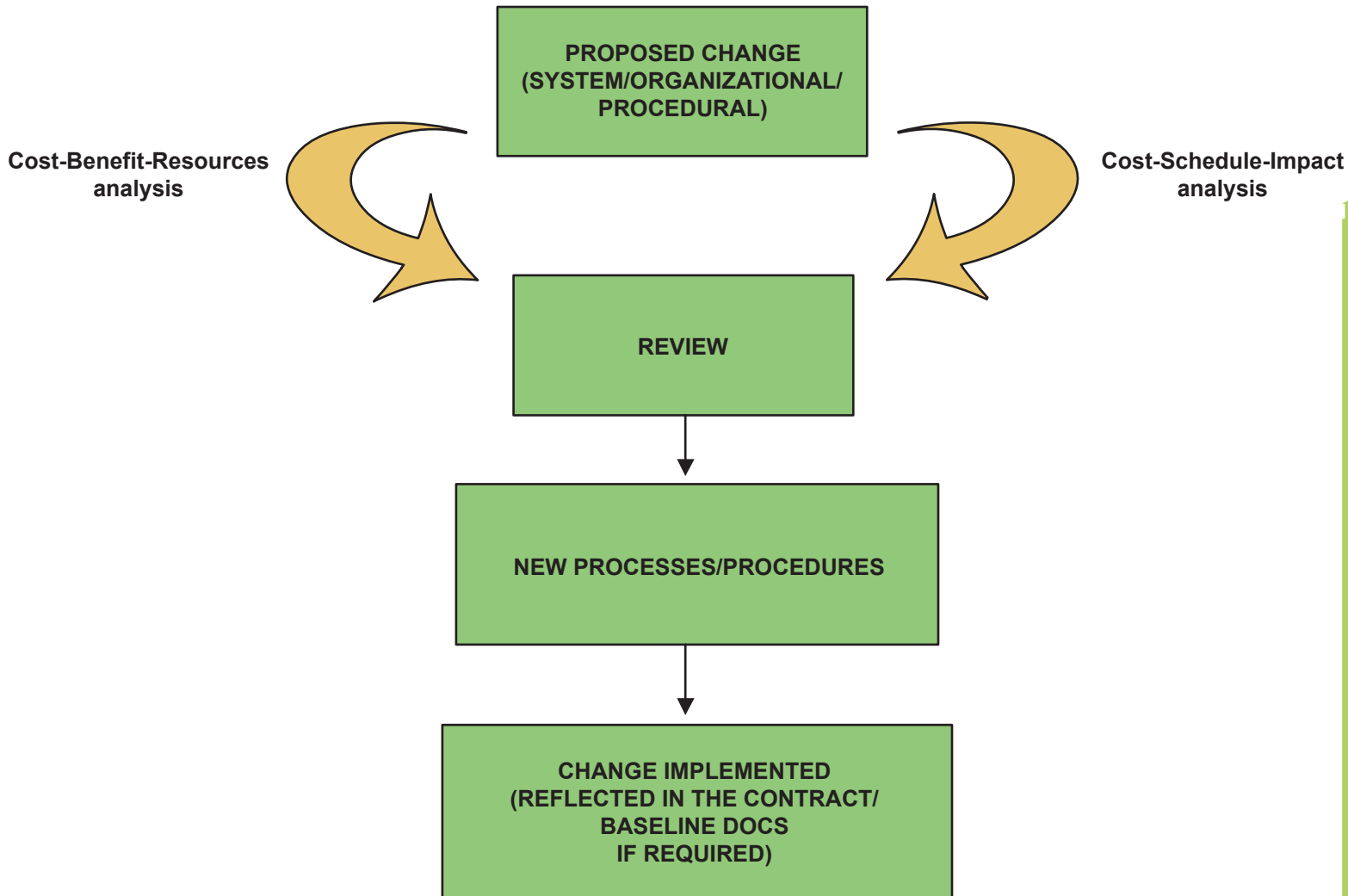


Figure 5: The life cycle of a change request

A change request may originate either at the client end or at InfoPro. The requested change can be a result of either a change in the client's requirements, or an outcome of a project improvement effort. After senior management has validated the proposed change, it is assigned a change process owner who is responsible for managing the change through its life cycle. The owner of the change request can either be a project manager or a senior instructional designer, depending on the nature of change. The change owner begins by describing the proposed change and identifying whether the change is system, organizational, or procedural in nature.



During the review phase, we adopt the Pros-Cons-Implications (PMI) approach to analyze the proposed change. This includes a cost-benefit analysis for both the client and InfoPro. If the change is complex, another cost-schedule-impact analysis is performed to determine the adverse impact of not implementing the change. Finally, the results of all the analyses are reviewed to facilitate an informed decision. In case, the change is to be implemented, new processes and procedures required for successful implementation of the change are established. Any additional resources, technology, skills, human resources, are gathered and finally the change is implemented. If required, the change is also reflected in the contract or any other baseline document as an amendment.

InfoPro also appreciates the distinct possibility of making changes to content and other multimedia components after the closure of the project. Typically, we address such needs by delivering a Flash application that pulls data from XML files. Flash-XML-based interface enables separation of content from the Flash application, allowing updates to course content without affecting the Flash file itself. This also facilitates easy maintenance of the courseware.

9. Virtual Team Collaboration

With the intention of optimizing outsourcing engagement, InfoPro focuses on facilitating collaboration between teams working in a virtual environment by instilling a heightened sense of awareness and connectedness. With this objective, InfoPro leverages technology for shared vision, processes and work, and effective communication.

InfoPro appreciates that virtual teams are separated by distance and, therefore, sensitizes its team members to the extra effort that may be required to develop a sense of community and builds shared workspaces. Sensitivity to the diverse work approaches empowers team members to define their own communication and work style, thereby blending multiple styles for optimal performance.

InfoPro is also sensitive to the fact that when teams work virtually, members not only work in different places, but come from different cultures. Therefore, members belonging to virtual teams are encouraged to be sensitive to diversity issues and this builds creativity and trust in the team.

In a virtual team, in addition to what and when, the "how" also needs to be defined. Therefore, InfoPro encourages the team to establish shared processes, a set of methods and practices that foster performance despite being at different locations.

Using opportunities like conference calls and Webex, InfoPro seeks to create a sense of shared identity to build a common focus and help create natural interdependencies.

10. Summary

InfoPro's outsourcing engagement model is both sufficiently flexible to accommodate the unique needs of the client and adequately robust to cope with any change in the requirements and yet deliver the envisioned solution within the agreed time and budgets. A shared vision of the project scope and requirements and the solution ensures that there are no unaligned efforts and, therefore, no time and cost overruns. At the same time, the mapping of instructional design with the learning needs and organizational objectives enables us to deliver solutions with business value.