Training Workshop

MANAGEMENT OF RESEARCH PROJECTS

Ethiopian Academy of Sciences
25 – 27, May 2016
Purpose of training

• Develop understanding on the need to effectively manage research projects/programs
• Provide tools and ideas for more effective execution of research projects
• Discuss the basic project management principles and practices to strengthen/firm up abilities, skills and competencies in research project management
Expected learning outcomes

- Improved concepts about research executing skills
- Improved competence for engagement in results-based management of the project life cycle
- Enhanced capacity for undertaking results-based monitoring and evaluation of research projects
Coverage of the section

- What is a research project?
- What is project management
- How does project management benefit researchers?
- What does project management entail
- Project cycle management (PCM)
- PCM tools
- Project managers
What is research?

• Research is a systematic and organized investigation of a scientific problem in order to establish facts and reach new conclusions- to generate new knowledge
TYPES OF RESEARCH

**Exploratory research**

• Takes place where there is little or no prior knowledge of a phenomenon.

• This type of research attempts to gain some familiarity with the appropriate concepts and looks for patterns or ideas without any preconceived ideas or explanation.

**Descriptive research**

• Describes a particular phenomenon, focusing upon the issue of what is happening, or how much of it has happened, rather than why it is happening.
**Explanatory research**
This type of research is involved in explaining *why* something happens, and assessing causal relationships between variables.

**Predictive research**
Forecasts future phenomena, based on the interpretations suggested by explanatory research.

**Basic research** takes place to explore a particular concept, or issue, without regard for a specific problem, and may be carried out to gain a better understanding of the overall concepts.

**Applied research** is undertaken to solve a specific problem or provide a solution to a practical question.
Project...

- A collection of linked activities, carried out in an organized manner, with a clearly defined START POINT and END POINT to achieve some specific results desired to achieve objective(s)
Project Management

• A dynamic process that utilizes the appropriate resources of the organisation in a controlled and structured manner, to achieve some clearly defined objectives identified as needs.
Why is Project Management used?

• It is necessary to Track or Measure the progress we have achieved towards a Goal we wish to accomplish

• We use Project Management to Aid us in Maximizing and Optimizing our resources to accomplish our goals
What project management helps researchers to achieve

- Plan tasks in project
- Reduce risks
- Track progress accurately
- Organize project process and timeline
- Improve stakeholder - staff communication
- Improve management of stakeholders’ expectations
- Complete within budget and on time
Project success factors

- Stakeholder involvement
- Executive management support
- Clear statement of requirements
- Proper planning
- Realistic expectations
- Smaller project milestones
- Competent staff
- Ownership
- Clear vision and objectives
- Hard working and focused staff
What does Project Management Entail?

- **Planning:** is the most critical and gets the least amount of our time
  
  *Beginning with the End in mind*

- **Organizing:** Orderly fashion
  
  (Contingent/Prerequisites)

- **Controlling:** is critical if we are to use our limited resources wisely

- **Measuring:** To determine if we accomplished the goal or met the target?
Measuring........

- Are we efficient?
- Are we productive?
- Are we doing a good job?
- What is the outcome?
- Is it what we wanted to be?

If you can’t plan it, You can’t do it
If you can’t measure it, you can’t manage it
Advantages

• In built Monitoring/ Sequencing
• Easy and Early identification of Bottlenecks
• Activity based costing
• Identification and Addition of missing and new activities
• Preempting unnecessary activity/expenditure
• Timely Completion
• Assigning tasks
• Reporting
Road to Better Project Management

• Find a Project plan that fits your style of project management needs
• It may be as simple as creating templates, forms and spreadsheets to track tasks
• Formation of a Project Management committee
• Listing out all the tasks and sub-tasks to accomplish a goal
• Jot down the time period and person responsible against each task/sub-task
Implementation

- Regular Monitoring
- Resource Support
- Critical issues discussed and solution
- Meeting with the team on completion of each major milestone
- Track the progress against the plan
- System to add/delete tasks in the PMT
Managing human dynamics

- Inspiring, motivating, and building trust and commitment of the project team
- Building communication, reflection and feedback between project team members and project donors, clients and partners into the project design and life cycle
- Coordination, direction, leadership, decision making
- Cross-functional cooperation, negotiation and conflict resolution skills
- Balancing between organisational goals, research team dynamics and client satisfaction
Consequences of not using PMT

- DELAY
- COST
- WASTE OF RESOURCES
- QUALITY
- DISSATISFACTION
- REPUTATION
The Project Management Triangle

• Project’s Triple Constraints (Key Metrics)
Managing the scope of the project

• Project scope management constitutes 'the processes to ensure that the project includes all of the work required, and only the work required, to complete the project successfully.'

• Project scope has several purposes:
  – It defines what work is needed to complete the project objectives
  – It determines what is included in the project
  – It serves as a guide to determine what work is not needed to complete the project objectives
  – It serves as a point of reference for what is not included in the project
Time management

• Defining project activities
• Activity scheduling
• Create and controlling the project activities
There's an old joke when it comes to project management time:

'The first 90 percent of a project schedule takes 90 percent of the time. The last 10 percent takes the other 90 percent of the time'
Improved quality

• Decision-making routes and processes are clearly defined
• Deadlines, costs and resources are controlled systematically
  – All processes in the project management activity chain are coordinated to ensure they remain in harmony with one another
• The result will help you to get:
  – more speed
  – greater flexibility
  – improved quality
Project governance

- Risk planning
  - Balancing risk avoidance and risk acceptance
- Life cycle management
  - From concept to replacement
- Strategic change
  - Balancing the solution and the ability to utilize
- Value management
  - Adopting consistent processes, building in quality and adding value
Project manager attributes

- Leader & manager
- Facilitator, coordinator
- Communicator
- Credibility: Technical/Administrative
- Work under pressure
- Goal-oriented
- Innovator
- Versatilist

- Knowledgeable about the organization
- Political sensitivity
- Conflict: sense, confront, resolve
- Can deal with stress, chaos, ambiguity
- Planning and follow-through
- Ethical dilemmas
Project manager duties

- Reports to senior management
- Communicates with users
- Plans and schedules
- Obtains and allocates resources
- Controls risks
- Manages people
- Coordinates
- Implements quality assurance
- Controls the budget
- Delivers results
Final thoughts

- Project management is a set of tools not a straightjacket!
- It should be dynamic, but have regular, fixed reviews of progress
- It can help with communication and to check on common understanding
  - Between you and your supervisor / sponsor / colleagues
- It can be difficult to apply these ideas at the very start of your project, but you should be able to identify scope, constraints, risks, time structure fairly soon…

Thank You