

Rules for Doing and Managing Research Project

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Abstract

There is no such thing as preparing just perfect and unique project. However, it is possible to plan research that brings a good solution to the problem. New topic, new knowledge, new methods, new information, new analysis and originality as ‘difference’, will make the project original.

An original project has to the following properties and rules: I-The Topic needs to conform purpose, relevance and feasibility. II-Approach needs to conform especially ethics and objectivity, III- Design for the project plan, IV-Methods needs to conform for accuracy and for accountability. V-Findings needs to conform generalizations, originality and proof.

As a result, healthcare projects have priority over identifying health problems and priorities and providing optimal solutions. In the resent years although important steps have been taken in the development of diagnostic, treatment or laboratory tests, this is not enough. Therefore, it is compulsory to develop original and contribution projects. However, attention should be paid to the validity, reliability, generalizability, unbiased and completeness of the projects and their fulfilment should be considered.

Key words: Project, Project Management, Methods, Research

Özet

Araştırma Projesi Yapmanın ve Yönetmenin Kuralları

Mükemmel ve benzersiz bir proje hazırlamak gibi bir şey yoktur. Ancak, soruna iyi bir çözüm getirecek bir araştırma planlamak mümkündür. Yeni konu, yeni bilgi, yeni yöntemler, yeni bilgi, yeni analiz ve 'fark' olarak özgünlük, projeyi özgün kılacaktır.

Özgün bir projenin aşağıdaki özellikleri ve kuralları vardır: I-Başlık, amaç, uygunluk ve fizibiliteye uymak zorundadır. II- Projedeki yaklaşımın özellikle etik ve nesnellığe uyması gerekir, III- Proje planı için dizayn, IV-Yöntemlerinin doğruluk ve geçerliliği için uygun olması gerekir. V Bulgularının genellemeler, özgünlük ve kanıtları sağlaması gerekir.

Sonuç olarak, sağlık projeleri sağlık sorunları ve önceliklerini belirleme ve optimal çözümler sağlama konusunda önceliğe sahiptir. Son yıllarda, teşhis, tedavi veya laboratuvar testlerinin geliştirilmesinde önemli adımlar atılmış olmasına rağmen, bu yeterli değildir. Bu nedenle özgün ve katkı projeleri geliştirmek zorunludur. Ancak, projelerin geçerliliği, güvenilirliği, genellenebilirliği, yansız ve eksiksiz olmasına dikkat edilmeli ve bunların yerine getirilmesi dikkate alınmalıdır.

Anahtar kelimeler: Proje, Proje Yönetimi, Yöntem, Araştırma

Introduction

Research can be daunting, particularly for first-timers. But remember Goethe's saying: "Everything is hard before it is easy".

There is no such thing as preparing just perfect and unique project. However, it is possible to plan research that brings a good solution to the problem. New topic, new knowledge, new methods, new information, new analysis and originality as 'difference', will make the project original.

An original project has to the following properties and rules (1): I-The Topic needs to conform purpose, relevance and feasibility. Purpose needs for clearly stated aims and questions. Relevance needs to relate to existing knowledge. Feasibility needs to tailor research to fit the resources available. II-Approach needs to conform especially ethics and objectivity. Ethics needs to recognize the rights of those affected by the research and the objectivity needs for an open-minded and self-reflective approach, III-Design needs for a plan that is coherent and fit for purpose and the philosophy of design needs to be aware of underlying assumptions, IV-Methods needs to conform for accuracy and for accountability. Accuracy needs for valid data and reliable methods, accountability needs to describe and justify the methodology, V-Findings needs to conform generalizations, originality and proof. Generalizations needs to apply findings to other situations. Originality needs to contribute something new to knowledge. Proof needs to be cautious about claims based on research findings.

The features in the design of a good project involve validity, reliability, generalizability, unbiased and completeness. These are the most effective features in accepting the project by the relevant committee. These five gold criteria should be considered in the design of the project.

I - Selecting Project Topics

Choosing titles in research requires experience. Title should not be selected. The title is not found by searching. The title should be chosen from the problems that hit and disturb us and society. The project title should be short, concise and meaningful. The title should clearly describe and describe the content proposed in the project. The meaning of the nature of the work must have been revealed at a glance. The words used in the title should be very selective.

It is a fact that the titles that activate the reader are more attractive. However, under a very impressive title, the content of the project is disappointing. The project title should therefore be able to directly explain the content (2).

Important research should focus on key issues. These problems are important today of course will be important tomorrow. Most research is based on past research. Past research is the basis for discoveries. The aim is to add empirical evidence, richness and depth to our understanding of a phenomenon (3). A project is defined as a series of related activities with a well-defined set of desired end results. Project management is defined as planning, directing, and controlling resources to achieve specific goals and objectives (4).

II-Approach needs to conform especially ethics and objectivity

Ethics is a concept that explains moral principles. Ethics in research can be called to do what is morally and legally right. Research "is a process that is effectively shared and makes new contributions to science and life. Therefore, research is a multi-stage process. Ethics is at the center of the research process. Researchers must pay attention to various ethical problems. There may be ethical concerns at every stage of this process (5,6).

Objectivity is judgment based on observable phenomena and uninfluenced by emotions or personal prejudices. It means a lack of bias, judgment, or prejudice. Maintaining one's *objectivity* is the most important job of a judge (7). Worries about objectivity just won't go away. Objectivity "is not a single idea, but rather a sprawling collection of assumptions, attitudes, aspirations, and antipathies. A central set of concerns with the objectivity and value-freedom of research today is about the fairness and responsibilities of researchers and their philosophies of research. In the objectivity debates is more than who actively participates in making scientific decisions. Alan Megill pointed out that those who were concerned with advancing objectivity tended to focus on one or another of four different components of research (8-10).

III-Design for the project plan

Design of empirical research requires the researcher to decide on the best ways of collecting data in research locales which will permit meaningful and insightful comparisons. At the same time the research design must achieve the control which gives some degree of certainty that the explanations offered are indeed superior to competing explanations. A good design is one which gives the researcher confidence in the solidity of the conclusions drawn from the

data. Achieving this requires a high degree of control. Control is about manipulating the research design, or the analysis, or both, to raise as far as is possible the probability that we really are sure about the conclusion to which we are coming (11). The contents of the project management plan is a set of plans that, when executed, will ensure completion of the course design and development and delivery within time and budget constraints. At the discretion of the project manager, the project management plan will contain the following items: 1- A scope definition, 2- A work breakdown structure, 3- A risk management plan, 4- A change management plan, 5- A project schedule – a project timeline with project milestones, 6- A budget for the project, 7- A staffing plan, 8- A communication management plan, 9- A procurement plan (12).

IV-Methods needs to conform for accuracy and for accountability.

The method of collecting the data must be determined. The efficacy, reliability of any research depends on the accuracy and sensitivity of the data collected. The opportunity to explain how the data will be obtained gives the reader the opportunity to assess the validity and reliability of the results. Two important terms of validity and reliability will be explained in more detail in the following topics. The ways in which the data will be analyzed are also important for the reader. Is the statistical method simple and cannot explain the variation? or Is it the advanced level that can explain the complex structure? The reader should be informed (2).

The collection of data is the heart of any research design, irrespective of the field of study. Any research begins with certain questions, which need to be answered. Data collection is the process of gathering the desirable information carefully, with least possible distortion, so that the analysis may provide answers that are credible and stand to logic. There are two types of data: Primary data and secondary data. The data gathered by researcher first-hand is primary data. The data that have been collected and compiled by someone, and are accessible to the public, are known as secondary data. The data collection methods can also be classified on the basis of the methods used. These are quantitative data and quantitative data. The data can be collected using various techniques. The decision about which tool to use for data collection is guided by the research question. Some methods of data collection are: • Interview • Focus Groups • Field Observation • Case Study • Ethnography • Oral History • Projective Techniques (13,14).

Methodologies are effective tools for identifying and describing processes and results. However, they work only as well as the people using them, so you may have to train resources and customers on the methodology before you can gather requirements. Project Management Institute (PMI) methodology and is broken into five parts that correspond to the PMI process groups: initiating, planning, executing, controlling, and closing (15).

V-Findings needs to conform generalizations, originality and proof

Creating the Project Definition. This involves answering two main questions: Why do you need a project? What will your project deliver? Success in projects depends on understanding precisely, completely, and unambiguously what you are trying to achieve (16).

Important steps to obtain original research results are as follows: First, based on the research results, various criteria need to be included (17). The cost, time and quality to use only the criteria are considered very narrow. Instead, the assessment should include both the project process and the success criteria, which include project results, the use of results and the effect of project deliveries (18). The results also show the importance of focusing on long-term success criteria. The project manager can improve the benefit of the project results. Success criteria should be formulated as early as possible in the project. The project evaluation practice should be extended from the evaluation at the delivery stage to the post-delivery stage (19).

It is a truth widely acknowledged that successful projects don't just 'happen'. They need careful planning, skillful managing and some degree of good fortune (20).

These criteria for successful projects are:

1. Identify the business case:
 - How does the project fit with your strategy? And, if it doesn't, why do it?
 - What are the benefits of delivering this project?
 - What are the costs? And are they worth it?
2. Define the project
 - Clarify roles: identify the project manager and project's sponsor (a senior manager)
 - Develop clear, measurable objectives – including defining the project's scope and criteria for success
 - Identify and manage stakeholders – including 'selling' the project to them if necessary
 - Define the skills needed by the project team
 - Identify ideal members of the project team
 - Produce a development plan and then train those whose skills are lacking
 - Devise a risk log (charting the risk management issues involved in the project)
 - Develop the plan
 - Split the project into its component parts

- Be realistic – not optimistic – about what can be achieved, given the resources available
 - Produce charts that show the relationship between activities and durations
 - Agree a reporting structure: agree who reports to whom, about what and at what intervals
 - Agree a process by which any changes to the project can be discussed and agreed
 - Compare actual with planned progress
3. Closing the project
 - Agree a closing date for the project. This acts as a great motivator
 - Reward the project team for their success
 - Review the project and ...
 4. Learn the lessons that the project should teach you

Project management is the most important feature that will lead the project to success. Project management is planning, organization, monitoring and control of all aspects of project, with motivation of all included to achieve project goals on safe manner, within agreed schedule, budget and performance criteria (21).

As a result, healthcare projects have priority over identifying health problems and priorities and providing optimal solutions. In the recent years although important steps have been taken in the development of diagnostic, treatment or laboratory tests, this is not enough. Therefore, it is compulsory to develop original and contribution projects. However, attention should be paid to the validity, reliability, generalizability, unbiased and completeness of the projects and their fulfilment should be considered.

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