

WRITING RESEARCH AND EDUCATION PROPOSALS: DOs and DON'Ts

A. SURLEVA<sup>1</sup>, G. JENALAYEVA<sup>2</sup>

<sup>1</sup>University of Chemical Technology and Metallurgy, Sofia, Bulgaria

<sup>2</sup>West Kazakhstan Marat Ospanov Medical University, Aktobe, Kazakhstan

Surleva A.R. – <https://orcid.org/0000-0001-9226-7789>

Jenalayeva G. – <https://orcid.org/0000-0001-8964-3683>

Citation/  
библиографиялық сілтеме/  
библиографическая ссылка:

Surleva A, Jenalayeva G. Writing RESEARCH AND EDUCATION PROPOSALS: DOs AND DON'Ts. West Kazakhstan Medical Journal. 2020;62(2):104–109.

Сурлева А, Джэналаева Г. Ғылыми-білім беру ұсыныстарын жазу: мүмкін және мүмкін емес. West Kazakhstan Medical Journal. 2020;62(2):104–109.

Сурлева А, Джэналаева Г. Написание научно-образовательных предложений: можно и нельзя. West Kazakhstan Medical Journal. 2020;62(2):104–109.

WRITING RESEARCH AND EDUCATION PROPOSALS: DOs and DON'Ts

A. Surleva<sup>1</sup>, G. Jenalayeva<sup>2</sup>

<sup>1</sup>University of Chemical Technology and Metallurgy, Sofia, Bulgaria

<sup>2</sup>West Kazakhstan Marat Ospanov Medical University, Aktobe, Kazakhstan

This paper presents some basic recommendations on the development of project proposal.

**The purpose** of this paper is to describe the process of project proposal writing, to give recommendations for development of an effective proposal, and to discuss some of the commonly encountered mistakes while writing of the project proposal.

**Methods.** The idea of the project and procedure of implementation of the proposed idea should be given in a concrete, logically connected and a clear way. In the process of the project planning and project proposal development the work flow chart of the project proposal should be followed.

**Results.** Practical considerations are presented in the paper. Common faults in project proposals are discussed and a short guidance how to overcome the mistakes on project proposal development is presented. The author presents a list for further reading and using in one's practice.

**Conclusions.** While development and writing of the project proposal one should keep in mind the importance of identifying the innovative idea fitting the priorities and requirements of the current call. It is necessary to select the proper research team which has expertise in the field of the planned or proposed project. Moreover, the team should follow the clearly defined working plan to develop the successful project proposal..

**Keywords:** *project writing, proposal development, faults in proposal writing.*

Ғылыми-білім беру ұсыныстарын жазу: мүмкін және мүмкін емес

А. Сурлева<sup>1</sup>, Г. Джэналаева<sup>2</sup>

<sup>1</sup>Химиялық технология және металлургия университеті, София, Болгария

<sup>2</sup>Марат Оспанов атындағы Батыс Қазақстан медицина университеті, Ақтөбе, Қазақстан

**Кіріспе.** Мақалада жоба жоспарлау мен жобалық өтінімді әзірлеу бойынша негізгі ұсыныстар берілген. Бұл жұмыстың мақсаты жобаны жоспарлау мен жобалық өтінімді дайындау үдерісін сипаттау, жобаны тиімді әзірлеу үшін ұсыныстар беру, және жоба дайындау үдерісіндегі жалпы қателіктерді талқылау болып табылады.

**Әдістер.** Жобалық өтінімді даярлау кезінде өтінімде жоба идеясы және оны жүзеге асыру жолы қисынды және түсінікті түрде көрсетілуі керек. Жобаны жоспарлау және жобалық өтінімді әзірлеу кезінде мақалада ұсынылған автор құрған жобалық өтінімнің схемасы сақталуы керек.

**Нәтижелер.** Мақалада автор жобаны жоспарлау мен жобалық өтінімді әзірлеу барысында қолдану үшін тәжірибелік пікірлерді келтіреді. Жобаны жоспарлау және жобалық өтінімді әзірлеу барысында болатын және жобалық өтінімдерде жиі кездесетін қателіктер талқыланып, пайда болатын қателіктерді жою туралы нақты нұсқаулар берілген. Автор жобаларды жоспарлап, жобалық өтінімдерді даярлау мақсатында әрі қарай танысып, оқу үшін әдебиеттер тізімін ұсынады, және ұсынылған әдебиеттердің бұл жұмыста пайдалы болатынына сенімді.

**Қорытынды.** Жобаны жоспарлау мен жобалық өтінімді жазу кезінде оның нақты байқаудың басымдықтарына және талаптарына сәйкес келетіндігі анық болу



Дженалаева Г.  
e-mail: [kuzembayeva@mail.ru](mailto:kuzembayeva@mail.ru)

Received/  
Келіп түсті/  
Поступила:  
14.11.19.

Accepted/  
Басылымға қабылданды/  
Принята к публикации:  
23.12.2019.

ISSN 2707-6180 (Print)  
© 2020 The Authors  
Published by West Kazakhstan Marat Ospanov  
Medical University

керек. Инновациялық идеяны анықтап, оны жүзеге асыру үшін жоспарланған жобаның бағытында тәжірибесі бар білікті мамандар тобы іріктелуі керек. Тиісті жұмыс тобы жобаны жоспарлауда және жобалық өтінімді даярлауда нақты жұмыс жоспарын жасаудың маңыздылығын есте ұстаған жөн.

**Негізгі сөздер:** жоба жазу, жобалық ұсынымды даярлау, жобадағы қателер.

#### **Написание научно-образовательных проектов: что можно и чего нельзя**

А. Сурлева<sup>1</sup>, Г. Дженалаева<sup>2</sup>

<sup>1</sup>Университет химической технологии и металлургии, София, Болгария

<sup>2</sup>Западно-Казахстанский медицинский университет имени Марата Оспанова, Актобе, Казахстан

**Введение.** В статье представлены основные рекомендации для планирования, разработки и написания проектной заявки.

Целью данной работы является описание процесса планирования, подготовки и написания проектной заявки, предоставление рекомендаций по эффективной разработке проекта и составлению проектной заявки, и обсуждение часто встречающихся ошибок в планировании процесса подготовки и написания проектной заявки.

**Методы.** Идея проекта и его реализация должны быть изложены в составляемой проектной заявке конкретно, в логически связанном и понятном виде. В процессе планирования проекта и разработки проектной заявки автор рекомендует следовать предлагаемой в статье схеме составления проектной заявки.

**Результаты.** В статье представлены практические соображения автора по планированию проекта, подготовке и написанию проектной заявки. Обсуждены общие ошибки в планировании проектов и составлении проектных заявок, а также дано краткое руководство по преодолению ошибок, допускаемых при подготовке проектной заявки и планирования проекта. Автором предложен список литературы для ознакомления и дальнейшего изучения, полезной для планирования и составления проектной заявки.

**Выводы.** Автором рекомендуется при написании проектной заявки помнить о важности определения инновационной идеи для будущего проекта, соответствующей приоритетам и требованиям конкурса. Отмечается важность выбора надлежащей рабочей группы по планированию проекта и составлению проектной заявки, члены которой должны иметь опыт в сфере планируемого проекта. Рабочая команда по составлению и написанию проекта должна следовать определенному четко разработанному рабочему плану.

**Ключевые слова:** написание проекта, разработка проектной заявки, ошибки в написании заявки.

#### **Introduction.**

Writing projects is an essential skill for academic carrier development (1, 2). At each carrier stage, one should generate idea, write a proposal, defend the idea and whole proposal, implement the project activities, report the project results and the last, but not the least disseminate the project results. The role of the researchers in the proposal development process is not postulated and young research could participate at each stage: starting from the idea till the project implementation and dissemination of the results.

In support of the importance of proposal writing skills is the fact that many tutorials could be found on the prestigious universities web sites or publishing companies [1-15]. Nowadays, the academic society encourage the early stage researchers and a line of recommendations are regularly published [5,7,9]. Each specific program, as example Horizon 2020, Erasmus + or others, regularly published along with the current call specific tutorials for project writing corresponding to the specific program or call. The universities published recommendations for their PhD candidates [3,4,5,14]. Specific recommendations on projects in the field of medicine could be found in

[6,7,8,12]. A useful guide for project from the idea to publishing the results are presented by Elsevier in its Research Academy website [15]. The list of references is highly recommended for further reading.

The aim of this paper is to present some basics on project proposal writing. Some recommendations are also given. Commonly encountered mistakes are also discussed. Common reviewers' comments from the Research grants completion 2017 are presented and recommendations to overcome the drawback are presented.

#### **I. Methodology**

The project proposal should present the whole idea and its implementation in logically connected and clear way. Some importing parts of the proposal could be highlighted: state of the art in the field, aim, objectives, methodology, working team, budget, dissemination of the results and their impact. The work flow chart of the project proposal is presented on Figure 1.

##### **1. The Idea**

The idea of the project is the most important part of the project. The idea should:

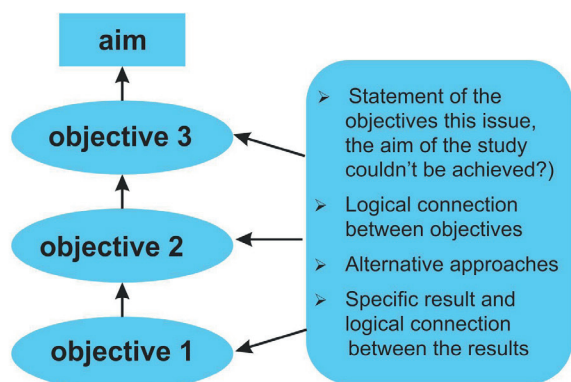


Figure 1. Working Flowchart of Project Proposal

- be innovative. However, the novelty of the idea should be considered at different levels: institutional, regional, national, worldwide. Do: clear present the novelty of your research idea, avoid complicated phrases and hard statements. Don't: don't limit your idea only at institutional or regional level. Look more widely on the application of your expected results. For example: a research data on the genetic specificity of the population of your region could contribute to the world wide scale by adding the data on the world map, etc.

- fit closely the call priorities. Do: in the proposal clearly connect to the call priorities. Make easy to the reader to understand how your proposal addresses specific call priorities. Include the specific priority of the call in the idea description. Don't: don't believe that your idea will address all the priorities of the call; don't put the reviewer to decide which priorities correspond to your idea. Don't forget that the priorities of a given call are formulated based on the thorough analysis of the current state of the society needs and the call is intended to address that needs. Even brilliant idea will not be supported if doesn't correspond to the priorities.

- connected with the state of the art in the field. A thorough survey should be made, but it should be presented in a concise way. It is advisable to present different approaches to address the same issue and support them by appropriate citations. The gap which the idea is aimed to fulfil: new knowledge, improved methodology, new data, new approach, etc., should be clear defined. Do: search for review articles on the topic.

Don't: consider that if the information is widely available, the reviewer could find it if he interested; neglect the fact that the reviewer is busy person and usually have short time to review the proposal.

- presented in clear and easy to understand way. The aim of the project should be clearly defined and it should be easy to find it in the text.

Do: some typical phrases to introduce the idea: this project is aimed at ..., The aim of the project is .... The aim of the project should be followed by specific objectives (later the objectives should be connected to the activities in the working plan). The aim of the project presents the

idea in broader plan, the objectives presents the specific tasks/activities which implementation should lead to fulfilment the aim of the project.

“Background and rationale for the project: Why do you think this issue needs to be investigated? What will we learn? What will we gain? Why is it important? What are the implications? It would be helpful if this section can mention previous research and other academic literature related to the topic area.” [14].

Expected results of the project should be clear defined. It should be easy to connect them with the project aim. The whole idea should have an impact. The impact should be described from different point of view: research team, university, region/country or broader concept.

Usually, the introduction section of the proposal should present: the state of the art in the field, supporting and controversial research with appropriate citations. The durability of the project results (or what after closing the project) could be presented in the Introduction section or in a special section in the end of the project. The environmental durability and social durability – gender equality, disable participants, should be also discussed. The flowchart of research methodology is presented on Figure 2. As can be seen from the Figure a link between each stage, activity and results should be clearly demonstrated. It is not advisable to have activity with result which is important, but isolated and not connected to the other activities.

## 2. Research Team

The research team is the core of the proposal. The research team should be created in the stage of project preparation and continue with project implementation. The main principle to create research team is collaboration, the competencies of the members should complete each other. A multidisciplinary and international team is a guarantee for the quality of research results and impact of the project results.

The participants should have expertise which will really benefit the project aim (H-index, experience, expertise in specific research field or in project management,



Figure 2. The Flowchart of the Research Methodology

etc.). However, it should be taken into account that the majority of research programs aimed at supporting young researchers. The early stage researchers should be a core of the project research team – at the stage of project implementation they actually do the experimental work. The experience researchers will guarantee that the project aims are feasible, the project activities will be implemented, the results will be with sufficient quality and their impact enough important. However, the research team should have reasonable number of participants. The number of participants should correspond to the activities

of the project and necessary expertise. It is advisable to avoid too large teams as it could provoke the management and coordinating difficulties. It should be noted that some of the participants could be invited for specific events or tasks. At the stage of creation of research team, the call priorities should be carefully considered as: young researchers, gender ratio, disable participants, etc. The competencies of the members of the research team should be clearly connected to the project activities and the distribution of the responsibilities should be clearly noted in the proposal.

Table 1. Some Basic Recommendations to Avoid Common Faults in Proposal Writing

| Topic   | DOs   | DON'Ts  |
|---|---|---|
| Project title                                   | Correspond to the call topic<br>Easy to understand<br>Concise, but informative  | Don't use abbreviations   |
| Detailed application                            | Well structured<br>use clear and simple language<br>Address each point of the section   | Do not leave sections of the application blank<br>Avoid repetition the same text in different section                               |
| Relevance and scientific novelty                | Clearly define the novelty of the project<br>Be realistic, but not modest<br>Present state-of-the art in concise way<br>Define the existing gaps in the field, but focus of the issue which your problem aims to address<br>Support your application with references to the works of other authors in this field and to your works (articles, copyright certificates, patents). The number of citations demonstrate the competence of the project authors in the filed<br>Cite the recently published research to demonstrate the relevance of the problem on which the proposal is focused | Don't use long and complicated statements<br>any statements which don't give detailed information<br>any clichés<br>Don't be modest |
| Problems that your project is designed to solve | Clearly define the problems and support by citations (if appropriate)<br>Set the aim of the project   | Don't rely on the fact that the potential reviewer is from the same country and is familiar with the problem                        |
| Aim of the project                              | Easy to understand<br>Easy to find in the text  | Don't include within the text (define it ins separate paragraph)  |
| The objectives                                  | Lead to the achievement of the aim of the project proposal<br>Present the working stages of the project<br>should be linked to the specific results   | Don't forget to link each objective with the expected results   |
| Impact of the project                           | Correspond to the aim<br>Correspond to the target groups  | Don't exaggerate<br>Don't be modest   |
| Research Methodology                            | Ensures implementation of working tasks<br>Sound and well-reasoned<br>Supported by citations<br>Clearly connected with task<br>Demonstrate how the project will be implemented  | Don't forget to present alternatives  |
| Research team                                   | Specialists with the appropriate competency<br>scientific background in this field of research<br>invited researchers   | Don't invite guest/ghost researchers, but people which expertise will benefit the project   |
| Research Infrastructure                         | The equipment and specialists working with it<br>cooperation with other laboratories and universities   | Don't forget to present the existing research infrastructure, as well as the equipment which is planned to be purchased             |
| Expected results                                | Corresponds to the objectives<br>Correspond to the planned activities<br>Logically connected<br>Lead to the aim CHIEVABLE by this team and with the specified methodology and material and technical base of the project  | Don't leave results without activity<br>Don't leave any activity without results  |
| Internationalization                            | Staff exchange<br>Use of material and technical base of partners<br>Joint publications<br>Internship of young scientists at partners<br>Joint databases and best practices  | Don't underestimate   |

Don't: forget to demonstrated the future impact of the project implementation on the participants in the research team.

Do: plan trainings for the members of the research team and especially for young researchers; describe how the project implementation will benefit the researchers, as new knowledge acquiring, new skill development, carrier development, networking opportunities.

### 3. Working Plan

The working plan presents the detailed program of the project. The stages and connection between them should be clearly defined. The tasks should be connected with the responsible persons, available and necessary equipment. The dissemination of the results as papers, conference attending, participation in research network should be included in working plan.

Do: be realistic; the tasks should lead to the main goal of the project; include the preparation stage: purchase of equipment, reagents, team training, models design, management plan and communication, monitoring plan.

Don't: plan many tasks.

### 4. Budget

The budget of the project should strictly follow the national rules and other specific rules depending of the funding body. Each program defines specific technical guidance for the allowed expenses and specific limits of expenses. Do: be realistic, but not modest (expect reducing of the budget, cost of currency changing - envisage around 10% higher costs).

Don't: exceed the limits.

Often budget changes are possible during the project implementation. However, the total budget could not be exceeded. Some changes in the budget could be made

without agreement with funding body. Even costs which are not planned could be included after agreement with funding body. The special instructions are presented in the specific guide for applicants for each program.

Do: agree the budget changes with funding body before implementation.

## II. Common Mistakes and Recommendations for Overcoming Them

A list of common mistakes in proposals, based on the reviewer's comments on the call 2017 of the National Research Fund of Republic of Kazakhstan, are presented below and some recommendations to address them in Table 1.

1. The competence of the leader and the working group is poorly reflected (no published papers in the direction of the declared research, not demonstrated work experience, etc.)

2. Research interdisciplinarity not defined

3. Not shown communication with foreign scientists

4. Potential for meaningful results not shown

5. No socioeconomic effect

6. Lack of alternative approaches to solving the tasks

7. Irrational and inappropriate use of human and financial resources

8. Purchased equipment does not meet objectives

9. The ways of using the obtained project results are not clear

10. The role of young personnel in the project is poorly traced.

11. Low level of translation

The list of literature provided in the paper should be considered in the process of project proposal development, as it will contribute to its effectiveness and help to cope with challenges.

#### References:

- Setiati S. Tips for making a good research proposal. *Acta Med Indones* 2004;Jan-Mar;36(1):43–47.
- Research Skills. SSDS, University of Leicester. V1.0, 2010. <https://www2.le.ac.uk/projects/oer/oers/ssds/oers/research-skills/Research%20skillscg.pdf>. Accessed 04 November 2019.
- How to Develop a Research Project and Write a Research Proposal. DAAD (Deutscher Akademischer Austausch Dienst), German Academic Exchange Service. <https://www.academia.edu/33865769>. Accessed 04 November 2019.
- Writing a Scientific Research Proposal. UConn Writing Center Science Liaison. <https://www.mhc.ab.ca/services/academicsupport/~media/a6c5e5b4dc184e8d8c72d72ec7032a2c.ashx>. Accessed 04 November 2019.
- Rowland DR. The Learning Hub, Student Services, The University of Queensland, Annotated Sample Research Proposal: Process and Product. <https://my.uq.edu.au/files/10720/sample-annotated-research-proposal.pdf> Accessed 04 November 2019.
- Al-Riyami A. How to prepare a Research Proposal. *Oman Med J* 2008;Apr;23(2):66–69.
- Proposal Development. Medical School Office of Research, University of Michigan, USA. *Oman Medical Journal*. 2017;32(3):180–188. <https://research.medicine.umich.edu/our-units/grant-services-analysis/research-development/proposal-development>. Accessed 04 November 2019.
- Al-Shukaili A, Al-Maniri A. Writing a Research Proposal to The Research Council of Oman, *Oman Medical Journal*. 2017;32(3):180–188.
- Guidelines for Writing a Research Proposal. University of London. <http://www.law.qmul.ac.uk/docs/postgrad/50379.pdf>. Accessed 04 November 2019.
- Hulley SB, Cummings SR, Browner WS, Grady DG, Newman TB. *Designing clinical research*. 3rd ed. Philadelphia, 2006.
- Defining the Role of Authors and Contributors. International Committee of Medical Journal Editors. <http://www.icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html>. Accessed 04. November 2019.
- Farrugia P, Petrisor BA, Farrokhyar F, Bhandari M. Practical tips for surgical research: Research questions, hypotheses and objectives. *Can J Surg*. 2010;Aug;53(4):278–281.
- Patil SG. How to plan and write a budget for research grant

- proposal? *Journal of Ayurveda and Integrative Medicine*. 2019 April-June;10(2):139–142.
15. Guidance on Writing an Outline Research Proposal. University of Nottingham, School of Health Sciences. <https://www.nottingham.ac.uk/healthsciences/postgraduate/apply/research-proposal.aspx>. Accessed 04 November 2019.
16. Researcher Academy. Elsevier. <https://researcheracademy.elsevier.com/research-preparation/funding>. Accessed 11. November 2019.

---

*Acknowledgments: The author is grateful to Nikolay Vassilyev and Dmitri Alyeshin (North Kazakhstan State University named after Manash Kozybayev) for providing the reviewers comments from the call 2017 of the National Research Fund of Republic of Kazakhstan.*