КАЗАНСКИЙ ФЕДЕРАЛЬНЫЙ УНИВЕРСИТЕТ

ИНСТИТУТ ГЕОЛОГИИ И НЕФТЕГАЗОВЫХ ТЕХНОЛОГИЙ

Кафедра высоковязких нефтей и природных битумов

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Presented tutorial is the educational and methodological support to the system of Postgraduate Education at Kazan Federal (Volga Region) University.

The tutorial is intended for full-time graduate and postgraduate students in the humanities, natural and technical areas of training; for candidates and researchers who are preparing for the PhD examination in the English language; for training courses on “The Specialized Professionally Focused Translation (English)" and “The English language (technical translation)”; for students obtaining additional qualification “Translator in the sphere of professional communication”, and for independently self-study English course.

Assignments for workshops and independent work are directed to formation of skills in reading scientific and technical texts, annotating and summarizing of the studied literature and also for development of the oral scientific speech skills.

Prepared at the department of the department of heavy oil and natural bitumen for research and innovative development

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INTRODUCTION

In today's globalized, fast-paced, and technologically advanced world, we need to communicate in a clear, simple, and focused way, as well as we need to be sensitive to multiple channels of communication; effective writing skills for professional communication have become increasingly important.

This tutorial will help students to develop a clear understanding of the importance of written communication for professional purposes. Students will learn about principles and characteristics in professional settings. They will also develop abilities for grammatical accuracy, precise vocabulary, clear style, and appropriate tone for professional communication.

The design of the tutorial is suitable for students with specific professional communication needs. While the class discussions and exercises will cover key characteristics of major types of writing for professional communication, students will also be working on their individual writing projects based on their own professional contexts throughout the course.

The goals:

1. Students will be capable to develop a strong understanding of:
   - Audience, purpose, message, communication channels in professional communication;
   - Document design, formatting, and organization of information;
   - Logical flow, style, tone, precision, and accuracy.
2. Students will be able to write: e-mails & memos, letters, and reports.
3. Students will be able to prepare documents related to final project.

Activities:

1. **Practicing writing continuously.** This course will provide opportunities to do a series of short writing assignments. Through instructor and peer feedback, students will be able to continuously develop their writing skills. There will be in-class writing exercises, too.

2. **Analysing professional context.** Students will analyse their individual professional contexts with their professional careers in mind. This will be a short written analysis following instructor's guidelines. Based on this analysis, students will have individual discussions with the instructor to determine their final writing projects. Students will have the opportunity to receive consultation/coaching support from the instructor regarding their professional contexts and final projects.
3. **Developing conceptual understanding.** Through in-class discussions based on selected readings and examples, students will develop a clear understanding of what professional communication is and what its strategies are in terms of goals, audience, message, channels, and culture. Macro- features of writing (such as document design, logical organization, and paragraphs or sections) and micro-features (precision, style, and accuracy) will be discussed with concrete examples.
4. **Writing e-mails, memos, and letters according to specific goals.** Students will understand a variety of communication goals in their professional contexts. Based on these goals, they will write e-mails, memos, and letters. They will learn how to format their documents, how to organize information, and how to write clearly, appropriately, precisely, and accurately.
5. **Preparing documents related to final writing project.** Each student will be working on an individual writing project. As part of this project, students will prepare documents. The documents will be covered in class discussions during the course. Students will work on their final project throughout the course. Multiple in-class guidelines, discussions and individual tutorials with the instructor will help them successfully complete their project.
6. **Getting customized feedback through individual discussions.** Students will meet with the instructor in individual discussions sessions. In these sessions, students will be able to discuss their professional contexts and review their written communication skills. They will be able to discuss their strengths and areas of further development in their writing skills. E-mails, memos, letters, and other documents prepared in the class will be the basis for these individual discussions.

ADDRESS TO YOUNG RESEARCHERS

The dissertation is the final stage of the Master's degree and provides you with the opportunity to show that you have gained the necessary skills and knowledge in order to organize and conduct a research project. It should demonstrate that you are skilled in identifying an area, or areas, suitable for research:

- setting research objectives;
- locating, organizing and critically analysing the relevant secondary data and authoritative literature;
- devising an appropriate research methodology;
- analysing the primary data selected and drawing on the literature in the field;
- drawing conclusions;
- making relevant recommendations and indications of areas for further research.

A dissertation is a 'formal' document and there are 'rules' that govern the way in which it is presented. It must have chapters that provide an introduction, a literature review, a justification of the data selected for analysis and research methodology, analysis of the data and, finally, conclusions and recommendations. Where the subject is based around a business or applied situation recommendations for action may also be required. Your Program Director or course dissertation coordinator will approve advice on the range of suitable topics, which relate to the subject area of your Master's degree.

The Masters level dissertation is distinguished from other forms of writing by its attempt to analyse situations in terms of the 'bigger picture'. It seeks answers, explanations, makes comparisons, and arrives at generalizations, which can be used to extend theory. As well as explaining **what can be done**, it addresses the underlying **why**. The most successful dissertations are those, which are specific and narrowly focused. N.B. These notes have been produced for general guidance only and you are required to read the recommended texts and journal papers on research techniques appropriate to the research methods of your subject discipline. You are not to use these notes as justification or reference for any methodological approaches or techniques in your dissertation.

PROFICIENT COMMUNICATION COMPETENCE

UNIT 1. COMMUNICATING AS A SCIENTIST

1. ***State your opinion on the following quotation by the French writer André Breton:*** *"Of all the arts in which the wise excel, nature's chief masterpiece is writing well."*

2. ***Prepare an introduction for your groupmates so that they can get to know you. Include the following:*** why you are taking the class and what you hope to learn, major, career goals.

3. ***Pair Russian word combinations with the English equivalents; compose 7 sentences regarding the importance of academic interactions while studying postgraduate course.***

1. Взаимодействовать через вопросы или обсуждение	A. Transmit information
2. Делать презентацию сложной	B. Focus on the audience
3. Донести смысл сообщения	C. Effective software
4. Изложить в письменной форме	D. Potential audience members
5. Конфиденциальное предложение	E. Written and oral communication
6. Не переоценивать знание темы	F. Read in one's own rhythm
7. Неуместная непринужденность	G. Structure evidence
8. Низкий уровень подготовки	H. Allow selective reading
9. Обсудить вопрос вне темы	I. Convincing arguments
10. Передать информацию	J. Interact through questions or discussion
11. Письменная и устная коммуникация	K. Formulate logically and consistently
12. Позволить выборочное чтение	L. Put in writing
13. Потенциальные члены аудитории	

14. Проявить уважение по отношению к аудитории	M. Don't overstate knowledge of the topic
15. Сосредоточиться на аудитории	N. Respect the audience
16. Сосредоточьтесь на цели.	O. Make presentation complicated
17. Структурировать доказательства	P. Inappropriate ease
18. Тщательно корректируя текст	Q. Low level of training
19. Убедительные аргументы	R. Carefully correcting the text
20. Уважать аудиторию	S. Established rules
21. Установленные правила	T. To discuss a topic outside the topic
22. Формулировать логически и последовательно	U. Confidential offer
	V. Show respect for the audience
23. Читать в собственном ритме	W. Convey the message
24. Эффективное программное	X. Focus on the goal

4. Retell Aspect 1, point out the main sentence(s) of each logical part, rewrite the sentences, skipping the pointless aspects.

ASPECT 1. UNDERSTANDING COMMUNICATION: TYPES OF SCIENTIFIC INTERACTION[1]

Effective communication is capturing, ensuring your audience to understand the idea you are trying to convey, and to encourage to do something with that information (such as remember, apply, provide feedback). A message is the interpretation of the information, which says what the information means for the audience, therefore you should focus on needs or wants; and strive to see from their perspective. Readers of a document can select what they read, they can read at their own rhythm, and they can reread parts of the document as many times as they wish. In written documents, you can convince through solid, detailed evidence, and you should structure this evidence to

[1] *http://www.ehow.com/info_8488258_types-scientific-communication.html*

enable selective reading. Attendees are less interested in details they could more easily read. On the other hand, they can get to know the speaker, they can interact. In oral presentations, you convince by selecting cogent arguments, by articulating logically, and by delivering effectively. When an oral presentation builds on a written document, you must be selective.

While interacting about science, the main challenge is to respect the audiences' intelligence without overestimating its knowledge of the field. Conference speakers make their presentations complicated and attendees may wish the presentation were aimed at a lower level. Respect is about how you say things (tone). In general, dare to say things the way they are: as you do so strive to help (not offend); politely ask your supervisor; present useful lessons from your failures. Make it a habit to write and speak in a simple, straightforward way: explain things as simply as you would to a colleague, face to face. Show respect by avoiding undue informality and by crafting and proofreading text carefully. Above all, focus on purpose: get message across.

However, it is possible to take a look at how types of scientific interaction can differ. The main goal of scientific interaction is to convey clear information so they can understand, use, and build on it. Standard scientific interaction refers to public media discussion about science to a non-scientist, general audience (like children, teenagers, and adults). Often, scientists are involved, in order to ensure the correctness of the information transmitted; but the interaction is done in terms that the general public can understand. Scientific interaction can be done through events, television programs, journal and magazine articles, as well as science-related programs and policies. The most official type of scientific interaction leads to a recognised publication, findings, observations, and views arising from a scientist's research project. A large demand for participatory models of interaction are often closely linked to the natural sciences, but can come from other departments - like media studies, psychology, sociology, or literature.

5. Look through Aspect 1 again and find the sentences where the author describes:

- Taking the medium into account: written/oral communication.

- Showing respect for your audience.
- Intellectual Scientific Interaction.
- Academic Discipline.

6. Answer the following questions.

- Why do you think the brilliant interaction skills are in demand in today's job market?
- How will these abilities help you to succeed on the job?
- How Academic English will help you to interact more effectively?

7. Make a set in which you interconnect: assess its usefulness – can you comprehend or can you recognise the reasons for making them? How can you advance the interaction about your work?

– Primarily with yourself about your work.
– Through laboratory notebooks, graphs, mathematical or chemical formulas.
– A preliminary version of documents or slides, and so on.

Assess this interaction regarding quantity and quality.

Use the following word combinations in your answers: provide the visual representations, to be aware of overestimating, academic publications, verbal interaction channels, integral part of being a scientist, exchange of information among scientists, work towards the advancement of the various scientific disciplines, subset of science interaction, academic and professional points of view, related government agencies, community media, organize and disseminate scientific (technical) information, to be linked to science, impact of social media, scientific interaction, convey the clear information, define the types of interaction, specific purpose of the material, refer to public media discussion, to be composed of, ensure the correctness of information, science-related programs, scholarly interaction, lead to the formal publication, results of observations, a scientist's research projects, in the form of printed materials, to be more or less homogeneous, in terms of both content and

context, the gap between knowledge and interest, less specialized and less motivated, the comparison points.

8. ***Make an elevated portfolio of the scientific communication*** *(for each item characterize yourself as an audience):*

- Are you more or less specialized in the discussed field?
- Were you a primary or a secondary reader?
- If possible, think of what a similar portfolio would have looked like a few years ago. In what sense were you a different audience than you are now?

9. ***Pair English word combinations with their Russian equivalents. Compose 9 sentences describing the differences between the academic and everyday interactions.***

1. Array of disciplinary publications	a. Важные результаты исследований
2. Constant business communication	b. Члены международного научного сообщества
3. Ensure	c. Двухуровневая структура
4. Expertise knowledge	d. Относительно небольшая группа
5. Important information meetings	e. Признанные лидеры
6. Important research results	f. Постоянное деловое общение
7. Knowledge processing community	g. Значительная часть информации
8. Leaders	h. Лидеры
9. Members of the international scientific community	i. Обеспечивать
10. Occur in modern science	j. Быстрое обсуждение
11. Personal contacts	k. Систематическая картина
12. Powerful technical information systems	l. Сообщество по обработке знаний
	m. Экспертные знания
13. Prompt discussion	n. Значительный прогресс в теоретических и эмпирических исследованиях
14. Recognized leaders	
15. Relatively small group	

16. Significant portion of the information
17. Significant progress in theoretical and empirical research
18. Systematic pattern
19. The creative interaction
20. Two-level structure

o. Творческое взаимодействие
p. Происходят в современной науке
q. Массив дисциплинарных публикаций
r. Важные информационные встречи
s. Мощные технические информационные системы
t. Личные контакты

10. Write a summary to the article "Научная коммуникация" in English, omitting the unnecessary details.

Begin your summary in the following way:

- *The object (purpose) of this paper is to present (to discuss, to describe, to show, to develop, to give) ...*
- *The paper (article) is concerned with (is devoted to) ...*
- *The (article) begins with a short discussion on (deals firstly with the problem of) ...*
- *It must be emphasized that (should be noted that, is evident that, is clear that, is interesting to note that) ...*
- *To sum up (to conclude) the author emphasizes (points out, admits) that...*
- *The paper (article) is interesting (not interesting), of importance (of little importance), valuable (invaluable), up-to-date (out-of-date), useful (useless)...*

Use the following word combinations in your answer: Scientific communication, bring information to the audience, various types of scientific communication, popular science links, public discussion, the correctness of transmitted information, the general public, connected with science and politics, provide feedback, formal type of scientific communication, research project of a scientist, in the form of printed materials, personal contacts with colleagues and teachers, the exchange of information between scientists, the development of various scientific disciplines, organize and disseminate technical information, scientific communication in the natural sciences, academic

discipline, is closely connected with the sciences, interpretation of information, attracting the attention of the audience, research activities, great methodological significance, bring in a single picture, socio-psychological research, significant amount of information, types of professional communication, scientific community, main mechanisms, method of research, search for opportunities, intensify research activities, cope with, information explosion, to satisfy the need, organizational restructuring, post-war conditions, relatively small groups, constant business communication, ensure the discussion, applied result, impressive applied implementation, urgent examination, important research results, world scientific community, system of indexes, scientific references.

НАУЧНАЯ КОММУНИКАЦИЯ[2]

Научная коммуникация – совокупность видов профессионального общения и один из главных механизмов развития науки, способа осуществления взаимодействия исследователей и экспертизы полученных результатов. Массированное изучение научных коммуникаций связано с поиском возможностей интенсифицировать исследовательскую деятельность, справится с так называемым «информационным взрывом», удовлетворить потребность в организационной перестройке науки в послевоенных условиях.

При этом коммуникационную интерпретацию получили практически все информационные процессы, происходящие в современной науке, начиная с массива дисциплинарных публикаций и важнейших информационных собраний (конференции, конгрессы, симпозиумы, форумы) и функционирования мощных систем научно-технической информации и заканчивая личными контактами ученых по поводу мелких эпизодов исследовательской деятельности.

Изучение коммуникаций в науке имело большое методологическое значение, так как в них удалось свести в единую картину данные, полученные в ходе социологических, информационных и социально-психологических

[2] http://terme.ru/termin/nauchnaja-kommunikacija.html

исследований. Были выявлены основные коммуникационные структуры, которые позволяют в считанные недели подключить к срочной экспертизе важного исследовательского результата практически всех участников мирового научного сообщества данной дисциплины. Впечатляющим прикладным результатом реализации явилось создание в Филадельфийском институте научной информации системы указателей научных ссылок (Science Citation Index, Social Science Citation Index и т.п.) – одной из самых эффективных информационных систем в современной науки.

(Э.М. Мирский)

11. Study the subsequent material and do the exercises below.

For the abstract of original scientific articles *containing the results of scientific research carried out by the author, the following structural forms are typical:*

1. The results of the theoretical (experimental) study of ... are presented…	*Приводятся результаты теоретического (экспериментального) исследования …*
2. It is shown that...	*Показано, что …*
3. A theoretical (experimental) dependence of ... vs. ... is formulated …	*Формулируется теоретическая (полученная экспериментально) зависимость … от ….*
4. Recommendations for ... are presented …	*Приводятся рекомендации по …*
5. Conclusions regarding ... are made (arrived at) …	*Делаются выводы о том, что …*

Abstracts of general scientific articles *on lexical-stylistic features is an intermediate position between the abstract of original and overview scientific articles; in addition to the standard structural forms for these two categories, they are specific for this structural forms:*

1.In this general paper the role of ... in ... is discussed.	*В данной обобщающей научной статье рассматривается роль …в ..*
2.A generalized version of ... for ... is introduced.	*Вводится обобщенный вариант … для …*
3.The extension of ... and possibility of its practical application to ... are considered.	*Рассматривается распространение … на … и возможность его практического приложения к …*
4.Subject matter related to ... as well as to ... is considered.	*Обсуждаются вопросы, относящиеся как к … так и к …*

For the abstract of overview scientific articles *containing a review (or comparative analysis) of the results obtained by different researchers, standard structural forms and turns, similar to the following:*

1.A review of ... essential for ... is presented.	*Приводится обзор …, представляющий интерес для …*
2.Recent state of art and theoretical (experimental, test) results of ... are summarised …	*Излагается современное состояние и результаты теоретических (экспериментальных, испытаний) исследований …*
3.The current research programs for ... are outlined.	*Приводится обзор проводимых в настоящее время исследований по …*
4.The factors (parameters) considered include …	*Рассмотрено влияние таких факторов (параметров), как …*
5.Special attention is given to ... methods (techniques, solutions) used by ... for …	*Особое внимание уделяется … методам (способам решения), применяемым … для …*
6.A bibliography of ... references is included.	*Библиография включает …. наименований.*

The examples examined above demonstrate the general rule of translating into Russian; the standard structural characteristic forms for abstracts: the predicate of the English text when translated into Russian, as a rule, passes from the last place to the first.

- ***Find the examples of standard structural forms in the presented abstracts. Write them out.***
- ***Does the structure and style of the abstract described here, correspond to those described above? Explain by examples.***

Abstract 1[3].

The current connotation of food biotechnology – also known as Genetically Modified Organism (GMO), or Genetically Engineered (GE), among others – is a food product developed through the genetic modification of a plant, animal, or microorganism in a laboratory by scientists. However, conventional crossbreeding techniques for improving crop yield through trial and error have been used for thousands of years – from ancient civilizations to the 19th century teachings of Gregor Mendel, which led to the 20th century green revolution in which Norman Borlaug crossbred wheat varieties to avert starvation.

More recently, in the 1980s and 1990s, scientists developed new plant varieties, such as an herbicide-resistant tobacco plant that reduced weed growth without harm to the plant. The first FDA approved use of food biotechnology was the transgenic Flavr Savr tomato, which was developed in the US in 1994 to delay ripening until after harvest. Over the next 20 years, food biotechnology has been used to develop many products. In 2012, more than 80% of US corn and cotton were developed through food biotechnology with the US leading other countries. This document summarizes general scientific concepts, safety issues, and regulations relating to food biotechnology. Labelling is discussed in a separate document.

[3] https://www.fmi.org/docs/default-source/food-safety/biotechnology-backgrounder.pdf?sfvrsn=0

Abstract 2[4].

The tremendous growth in biological data has resulted in an increase in the number of research papers being published. This presents a great challenge for scientists in searching and assimilating facts described in those papers. Particularly, biological databases depend on curators to add highly precise and useful information that are usually extracted by reading research articles. Therefore, there is an urgent need to find ways to improve linking literature to the underlying data, thereby minimising the effort in browsing content and identifying key biological concepts. As part of the development of Europe PMC, we have developed a new platform, SciLite, which integrates text-mined annotations from different sources and overlays those outputs on research articles. The aim is to aid researchers and curators using Europe PMC in finding key concepts more easily and provide links to related resources or tools, bridging the gap between literature and biological data.

Abstract 3[5].

Incorporation of mathematics into biology curricula is critical to underscore for undergraduate students the relevance of mathematics to most fields of biology and the usefulness of developing quantitative process skills demanded in modern biology. At our institution, we have made significant changes to better integrate mathematics into the undergraduate biology curriculum. The curricular revision included changes in the suggested course sequence, addition of statistics and precalculus as prerequisites to core science courses, and incorporating interdisciplinary (math–biology) learning activities in genetics and zoology courses. In this article, we describe the activities developed for these two courses and the assessment tools used to measure the learning that took place with respect to biology and statistics. We distinguished the effectiveness of these learning opportunities in helping students improve their understanding of the math and statistical concepts addressed and, more importantly, their ability to apply them to solve a biological problem. We also identified areas that need emphasis in both biology and

[4] https://wellcomeopenresearch.s3.amazonaws.com/manuscripts/13087/8f4b6b4d-33d1-4d75-b367-364503c35ac6_10210_-_aravind_venkatesan_v2.pdf?doi=10.12688/wellcomeopenres.10210.2

[5] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3164565/pdf/259.pdf

mathematics courses. In light of our observations, we recommend best practices that biology and mathematics academic departments can implement to train undergraduates for the demands of modern biology.

Abstract 4[6].

Questions about the relevance of religious views to public policy have been central in debates over the governance of biotechnology since the 1960s. This article offers an empirical analysis of moments of deliberative politics surrounding human embryo research, primarily within public bioethics bodies. I examine how these bodies have used the idea of public reason as developed in deliberative democratic theory to differentiate between secular and religious reasons. I argue that scientific authority is made to play a powerful, but largely unacknowledged role in constructing these categories by contributing to definitions of the range of "reasonable" pluralism. I show that notions of right (scientific) knowledge are co-produced with ideas of how public discourse can be disciplined to comport with an ideal of public reason. I argue that scientific authority powerfully shapes the contours of public deliberation in ways that are highly consequential for notions of democratic legitimacy, but are systematically unrecognized by political theorists.

12. Using standard structural forms, write an abstract of an article or book on any familiar issue in English.

13. Complete and translate the following sentences.

1. The purpose of this paper is to investigate the relationship between ... and ... and their capability ... in case of ...
2. A continual need exists for reviewing and updating the state-of-the-art in such areas as ...
3. In sections which follow, the fundamental problem of ... as currently understood, as well as the types of theoretical treatments for predicting ... performance of ... will be described.

[6] http://scholarship.law.nd.edu/cgi/viewcontent.cgi?article=1754&context=ndjlepp

4. The fundamental mechanisms of..., as currently understood in their close relationship to ..., are discussed so as to obtain ... results ...
5. The … diagram facilitates the determination of the … relationship for … conditions ...
6. Thus for the case of …, ignoring … values, the equation … may be rewritten with the help of … equation as …
7. Since the performance of a ... is determined by the ....., defined as ..., the values of ... greater than ... necessarily imply that a significant improvement in ... can be achieved.
8. The requirement of … formulated for … determines the … and sets the value of …
9. The following specific conclusions are drawn ...
10. ... and ... are among the most meaningful results of the study ...

14. Make an abstract of the article you are currently working on.

1. The title of the article.
2. The aim (purpose) and subject of the article.
3. The arrangement of the subject matter (the content).
4. The conclusion and recommendations.

15. Find the following English word combinations in Aspect 2; write out the sentences and translate them.

To evaluate all the proposals, to be necessarily composed, to be familiar with the context, to be tempted to jump directly to the heart of the matter, more or less specialized members, to be read by newcomers to the field, to apply the detailed information, to master the technical terms, to convey the motivation for work.

16. Make a plan and entitle each of its points; write the abstract to Aspect 2 according to your plan.

ASPECT 2. IDENTIFYING PURPOSE AND AUDIENCE[7]

To communicate effectively you must adapt to your audience, therefore, you must know your audience: if your purpose or audience is unclear, clarify it as best you can, possibly by asking others. For example, for public thesis defence – the audience is strongly heterogeneous, which includes jury, colleagues, friends, and perhaps family.

The purpose depends largely on how your institution sees the event. As a scientist, you may find it challenging to present your work – or to explain scientific concepts in general – to a less specialized audience. More challenging is addressing a mixed audience of both specialists and nonspecialists.

Specialists can apply detailed information in their own work and they might need to be convinced of the validity of conclusions. Nonspecialists (as they have not mastered the technical terms) need basic information and also require more interpretation with simpler vocabulary (or definitions).

Whether you are addressing (less) specialized audience members, it is a good idea to convey the motivation for the work you report, that is, you must bridge the gap between what they know or are interested in and what you will present. With nonspecialists, this gap is wider than with specialists.

Nonspecialists lack comparison points; but one type of comparison that is useful to all audiences (particularly to less specialize ones) is the *analogy*. The power of an analogy depends on how familiar the audience is with the comparison point (here, the library), and also on how consistently you can carry the analogy through your document or presentation. Nonspecialists also lack visual references: visual material can include drawings and photographs, which can abstract unnecessary details to focus on the essential idea, are best for conceptual explanations. The essential strategy to addressing a mixed audience is *structure*, from the whole document or presentation to the individual sentence. You must distinguish between what everyone needs or wants to learn and what only some of them need or want to learn, and then structure your writing or speaking accordingly.

[7] *http://www.nature.com/scitable/ebooks/english-communication-for-scientists-14053993/126083884#bookContentViewAreaDivID*

17. Look through Aspect 2 again and write out the sentences where the author describes:

- Knowing your purpose and audience.
- Audiences: (primary/secondary) readers and listeners.
- Writing/speaking for nonspecialists or a mixed audience.

18. Pair English word combinations with their Russian equivalents.

A. An equal degree of expertise	1. Эффективный документ
B. Effective document	2. Освоить технические условия
C. Might not be mindful	3. Приспособиться к аудитории
D. More basic information	4. Научный опыт
E. Public thesis defence	5. Четкая группа людей
F. Remember the context	6. Помните контекст
G. Scientific background	7. Иметь смысл как для первичных, так и для вторичных результатов
H. Simpler vocabulary	
I. The visibility of your work	8. Получить документ в будущем
J. To adapt to the audience	9. Не стоит помнить
K. To determine the strategy	10. Одинаковая квалификация
L. To make sense both to primary and secondary results	11. Более подробная информация
	12. Упрощенная лексика
M. To master the technical terms	13. Определить стратегию
N. To obtain the document in future	14. Публичная защита диссертации
O. Well-defined group of people	15. Наглядность вашей работы

19. Speak about your publication (thesis, research area) using the following questions. Use the following word combinations from the exercise 15, 18.

1. What is the theme of your thesis?

2. Have you already published any research articles?
3. Where and when did you publish them?
4. What are the themes of your published research papers?
5. What problems do you deal with in those research papers?
6. What are you going to prove in the course of your research?
7. Who are your published research papers addressed to?
8. Do you give much thoughtfulness to in you published research papers?
9. What is specific concern in your research paper?
10. How many parts does your research paper consist of?
11. What is the purpose of your research paper?
12. What do you mention in conclusion?

20. Using the information from Unit 1.1.; prepare a short personal response to the following issues – what is your opinion or reaction to the topic/issue?

1) The development of Science and Technology: retrospective aspect.
2) Research the area of work you wish to enter to identify how potential employers would view applicants with postgraduate qualifications. What new experience and knowledge would you gain from the post-graduate course of study?
3) What is your motivation for taking a post-graduate course? Is it only because of helps for future career making? Sum up all pros and cons and make a presentation in class.

UNIT 2. WRITING RESEARCH PAPERS

1. ***State your opinion on the following quotation by James Michener.***

   "I'm not a very good writer, but I'm an excellent rewriter."

2. ***Samuel Johnson, who wrote the first true English dictionary, said,*** *"What is written without effort is in general read without pleasure."* ***What do you think he meant by this? What does this mean to you as a professional communicator?***

3. ***Express your opinion on the following statements. Prepare a short report regarding the following statements.***

"There is no substitute for science communication to the public and policy makers." *Lailah Gifty Akita*

4. ***Pair English word combinations with their Russian equivalents; compose 8 sentences connected with the possible difficulties in writing research papers or statements (objectives).***

1. Avoid dangling	A. Мотивация для работы
2. Chronological order	B. Противостояние между фактическими и желаемыми ситуациями
3. Direct continuation of the context	C. Прямое продолжение контекста
4. Experimental procedure	D. Последние достижения
5. Explicit preview	E. Постепенно сузились
6. Focus appropriately	F. Без сопроводительной интерпретации
7. Heading of the section	G. Сильная связь
8. In a complicated and overly formal way	
9. Less difficult and more interesting	

10. Object of the document
11. Opposition between actual and desired situations
12. Ordinary writing
13. Overall structure
14. Progressively narrow down
15. Recent achievements
16. Reflect ideas
17. Schematic diagram
18. Selective reading
19. Strong connection
20. Systematic preference
21. The motivation for the work
22. Understand effortlessly and unambiguously
23. Upcoming divisions
24. Without accompanying interpretation

H. Предмет документа
I. Общая структура
J. Предстоящие подразделения
K. Заголовок раздела
L. Явный предварительный просмотр
M. Выборочное чтение
N. Экспериментальная процедура
O. Принципиальная схема
P. Хронологический порядок
Q. Понять легко и недвусмысленно
R. Сложным и чрезмерно формальным образом
S. Отразить идеи
T. Сфокусировать внимание
U. Избегайте свисания
V. простое написание
W. Менее сложный и интересный
X. Систематическое предпочтение

ASPECT 1. STRUCTURING THE RESEARCH PAPER: EFFECTIVE WRITING TIPS[8]

As a scientist, you are expected to share your research work in diverse forms, however, the most demanding is the paper published in a scientific journal, which have high standards of quality and their importance (the impact factor) are viewed as a reflection of your scientific achievements.

Constructing your sentences logically, clearly, accurately, and concise is a good start, need to ensure the sentences are readable, make sure your sentences don't tax

[8] http://www.nature.com/scitable/ebooks/english-communication-for-scientists-14053993/118519636#bookContentViewAreaDivID

readers' short-term memory by obliging to remember long pieces of text before knowing what to do with them. When writing a complex sentence, place the main idea in the main clause rather than a subordinate clause. To construct sentences that reflect your ideas, focus these sentences appropriately and express one idea per sentence.

State the motivation for the work presented in the paper; it is usually clearer and more logical when it separates what the authors have done from what the paper itself attempts or covers i.e. the task clarifies your contribution as a scientist, whereas the object of the document prepares readers for the structure of the paper, allowing focused or selective reading. Write four components (in 4 paragraphs): context, need, task, and object of the document.

- Provide the context to orient and establish the importance of your work.
- State the need for your work, as an opposition between what the scientific community currently has and what it wants.
- Indicate what you have done in an effort to address the need.
- Preview the remainder of the paper to mentally prepare readers for its structure, in the object of the document.

Although papers can be organized into sections in many ways, those reporting experimental work typically should begin with a topic sentence to prepare readers for their contents, allow selective reading, and – ideally – get a message across. Most experimental sections are boring to read; to make this section interesting, explain the choices you made in your experimental procedure: What is special, unexpected, or different in your approach? Mention these things early in your paragraph, ideally in the first sentence.

The traditional sections are best combined because results make little sense to most readers without interpretation. There is no need to write about science in unusual, complicated, or overly formal ways in an effort to "sound scientific" or to impress your audience. Convey in the first sentence what you want readers to remember from the paragraph as a whole. Then develop your message in the remainder of the paragraph; including only that information you think you need to convince your audience.

In other words, keep together what goes together: See whether you can replace long phrases with shorter ones or eliminate words without loss of clarity or accuracy. State the most important outcome of the work; interpret the findings at a higher level of abstraction. Show what your findings mean to readers and make it interesting and memorable. Consider including perspectives – an idea of what could or should still be done in relation to the issue addressed in the paper. If you include perspectives, clarify whether you are referring to firm plans for yourself and colleagues.

5. Study the material in Aspect 1; summarize the essential information.

Use the following word combinations: the most demanding forms, high standard of quality, the journal editor, the journal readers, more or less knowledgeable, a chronological account, constitute valuable and lasting references, the impact factor, a reflection of the scientific achievements, accurate and concise information, self-centred, high-quality scientific papers, the work and the outcome, to support the statement, to reflect the progression of research projects, to provide a compelling motivation, to be cited by others, must be highly readable, by interpreting the findings, to focus on the readers, to clarify the motivation for the work, to be relevant to scientists.

6. Look through Aspect 1 again and locate the information where the author describes the following:

- Section, which clarifies the motivation for the work presented and prepares readers for the structure of the paper.
- Section, which provides sufficient detail to reproduce the experiments presented in the paper.
- Section, which presents and discusses the research results accompanying with interpretation.
- Section, which presents the outcome of the work by interpreting the findings at a higher level of abstraction.
- Section, which provides tips for effective writing.

7. Study this specific material; complete the examples of standard structural forms for Introduction.

The goal of **Introduction** is to acquaint the reader with the scientific problem reflected in the article and outline its relevance. Introduction contains a small number of references to previously published work, progress conclusion and analysis of obtained results. Vocabulary and terminology are of a general scientific nature.

An example of ***standard structural forms typical for Introduction*** is given below:

1. The purpose of this paper is to investigate the relationship between … and … and their capability … in case of …	*Целью данной статьи является исследование зависимости между ... и ... и их способности ... в случае ...*
2. The scope of the present effort, which began in …, includes the analysis, design, fabrication, and testing of …	*Тематика данной работы, начатой в ... включает анализ, проектирование, изготовление и испытания ...*
3. The present research project is a … - sponsored endeavour which responds to the industry requirement for …	*Настоящая программа исследований выполняется при поддержке ... и предназначена для удовлетворения потребности промышленности в ...*
4. One aim of this paper is to provide an overview of … and to study ways in which … can be exploited in order to improve …	*Одна из целей данной статьи заключается в обзоре ... и изучении возможностей использования ... для того, чтобы улучшить ...*
5. A continual need exists for reviewing and updating the state-of-the-art in such areas as …	*Существует постоянная потребность в пересмотре и обновлении наших представлений о современном состоянии вопроса в таких областях,*

	как …
6. We consider with K. and M. that theoretical work on … should be completed with … data …	*Мы согласны с К. и М. в том, что теоретические работы по ... должны быть дополнены ... данными ...*
7. Beginning in …, results and publications by N., and his colleagues modernized and popularized the idea of using … for the manufacture of … and …	*Начиная с ..., исследования и публикаций Н. И его коллег модернизировали и популяризировали идею использования ... для изготовления ... и ...*
8. In sections which follow, the fundamental problem of … as currently understood, as well as the types of theoretical treatment for predicting … performance of … will be described.	*В последующих разделах будут изложены современные представления о фундаментальной проблеме ... так же, как и теоретические методы предсказания ... характеристик ...*

8. Read and translate Introduction 1. Using examples typical for standard structural forms, make several sentences of your own that correspond to Introduction 1.

Introduction 1[9]

The development and regulation of biotechnology has triggered many discussions from different academic fields, such as economics, law, politics and even history. Specifically, however, the genetic engineering of living cells, plants, animals and human beings has brought ethical concerns and issues to the foreground. Mediatic announcements such as the creation of genetically engineered tomatoes or soya, the cloning of the sheep "Dolly", the deciphering of the human genome or research on "cloning" human embryos have been followed by many reactions in the name of ethics. Diverging views have been expressed, as representations of our "natural" world were being challenged.

[9] https://www.oecd.org/futures/long-termtechnologicalsocietalchallenges/40926844.pdf

The aim of this document is to provide some insights into the ethical concerns, dilemmas and trade-offs that have been expressed concerning biotechnology in the last ten years. The paper focuses on six objects from the agriculture, industry and health sectors, whose procurement, production, storage and use by biotechnology has raised general attention: genetically modified organisms, biofuels, natural genetic resources through bioprospecting, transgenic and cloned animals, private genetic information and stem cells. Specific examples and international comparisons are drawn from a vast geographical scope: Brazil, Canada, China, Denmark, Finland, France, Germany, India, Italy, Japan, Mexico, Norway, Sweden, the United Kingdom, and the United States have all hosted some ethical debate, sometimes specific to these countries, other times shared by a more international public.

The classical division between science and society does not seem to operate, when biotechnology is seen through an ethical lens. Science, indeed, could provide no adequate, technical answer to the questions that relate to moral values such as dignity, justice, autonomy, integrity and freedom or to notions considered absolute, such as nature, biodiversity, humanity, animal welfare, health, knowledge or individual interest. Quite often, ethical values conflict with one another, and produce dilemmas through which the public, researchers or regulators must find their own way. Though not pretending to be comprehensive or holistic, this study presents characteristic features, trends and snapshots on the state of public opinion and major ethical controversies regarding biotechnology.

9. Read and translate Introduction 2. Using examples typical for standard structural forms, make several sentences of your own that correspond to Introduction 2.

Introduction 2[10].

As food scientist/microbiologist I have the perception that the marine environment is just a source of food for humans, like it happens for the terrestrial environment under the practices of agriculture. Marine environment contribution to human food supply is as

[10] https://www.frontiersin.org/articles/10.3389/fmars.2014.00066/full

old as human existence in the planet and still most of the anthropogenic activities take place around the world's coasts. Humans have been using aquatic environments to collect their food from prehistoric periods with fishing being an older activity than agriculture. Fisheries and aquaculture provides almost the 50% of the animal protein supply.

When I joined Academia at the Department of Ichthyology and Aquatic Environment at the University of Thessaly, Greece, I had the opportunity to meet and cooperate with colleagues from scientific disciplines like marine biology and ecology. Gradually I realized that apart from the contribution of marine environment to the world's food supply, the seas offer a far richer variety of useful constituents to be used in foods with a higher potential compared to the terrestrial environment. Marine environment, covering more than 70% of the earth's surface, hosts the greatest diversity of life which most of it is still unexplored. The ability of aquatic organisms to survive in a wide range of environmental conditions makes them to develop an enormous reservoir of bioactive compounds with unique properties and great potential for biotechnological applications.

Recently, there has been a growing interest for functional food ingredients, nutraceuticals, probiotic, prebiotic, various dietary supplements. Nutraceutical comes from the words "nutrition" and "pharmaceutical." Nutraceutical is a product that is generally sold in medicinal forms that provides health and medical benefits, including the prevention and/or treatment of disease. Functional foods are those that can give specific medical or physiological benefit, other than a purely nutritional effect. Functional foods usually contain ingredients with known bioactive compounds in defined amounts and they provide a clinically proven health benefit. Furthermore, probiotic is currently used to name ingested microorganisms associated with beneficial effects to humans or animals, while prebiotics is a general term to refer to compounds that induce the growth and/or activity of microorganisms that contribute to the well-being of their host, like the beneficial microorganisms that colonize the human gastrointestinal track.

The manufacturing of foods that provide additional health benefits to the consumer is an aspect of increasing interest for the society. Additionally, consumers demand minimally processed food for maximum nutrient retention, without the addition

of chemical preservatives while on the other hand the foods need to be safe, with prolonged shelf-life and easy to use. To fulfil these requirements, natural compounds from various terrestrial or aquatic sources and biomolecules that exert antimicrobial, antioxidant, prebiotic, anticoagulant, antitumor, antiviral, anti-inflammation, and others, actions have to be employed by the food industry. It seems that finally, the father of western medicine Hippocrates' thoughts, expressing that food has to be our medicine, seem to have become finally the guides for our modern practices.

10. ***Make the subtext dictionary of unfamiliar terms; understand and formulate the main idea(s)of Introduction 1 and 2.***

11. ***Write out all the standard structural forms used in Introduction 1 and 2. Using your own subtext dictionary (unfamiliar terms) and set of structural forms, translate the text into Russian.***

12. ***Study the verbs that express research actions. Create a list of them but only add specific verbs such as measure, compare, or simulate, not generic verbs such as do, perform, or carry out. Make up your own sentences or complete the sentences below.***

Verbs that express research actions:

apply	We *applied* Malhotra's principle to . . .
assess	We *assessed* the effects of larger doses of . . .
calculate	We *calculated* the photoluminescence spectrum of . . .
compare	We *compared* the effects of . . . to those of . . .
compute	We *computed* the rapidity predicted by . . .
derive	We *derived* a new set of rules for . . .
design	We *designed* a series of experiments to . . .
determine	We *determined* the complete nucleotide sequence of . .
develop	We *developed* a new algorithm to . . .

evaluate	We *evaluated* the efficacy and biocompatibility of . . .
explore	We *explored* the relationship between . . .
implement	We *implemented* a genetic algorithm for . . .
investigate	We *investigated* the behaviour of . . .
measure	We *measured* the concentration of cadmium in . . .
model	We *modelled* the diffraction behaviour of . . .

13. Study the particular material; complete the given examples of structural forms for problem formulation; progress conclusion; analysis of obtained results.

The Body of any scientific and technical article contains three subsections, but not always three parts are presented in the article by separate chapters or paragraphs.

Nevertheless, the main part of each subsection corresponds to standard structural forms. The most common is the content division into ***three logically related units*****:** *problem formulation; progress conclusion; analysis of obtained results*.

For example, ***problem formulation*** is characterized by structural forms of the following type:

1. The present research program plans to demonstrate the … of the … system when subjected to … during …	*В планы настоящей программы исследований входит продемонстрировать ... системы ... в условиях воздействия ... в течение ...*
2. The … design was basically developed in the … program in order to provide for …	*Проект ... был в основном разработан в рамках программы ... для того, чтобы обеспечить ....*
3. In the field of … the major phenomena of interests are …	*В области ... наибольший интерес представляют явления ...*
4. The very significant areas of most concern are …	*Наибольшую озабоченность вызывают важнейшие направления ...*

5. It is necessary to have a tool that would provide an accurate description of the … processes at the level of …	*Необходимо иметь аппарат, который бы обеспечивал точное описание процессов ... на уровне ...*
6. In order to obtain the … formulation for …, the results of experimental investigation of … were examined …	*Для того чтобы получить ... выражение для ..., были обследованы результаты экспериментальных исследований ...*
7. The fundamental mechanisms of …, as currently understood in their close relationship to …, are discussed so as to obtain … results …	*Чтобы получить результаты ..., рассматриваются фундаментальные механизмы ..., которые по современным представлениям находятся в тесной связи с ...*

Standard structural forms are used to describe the various stages of the research – ***progress conclusion*** *and* ***analysis of obtained results***.

1. Using the … equation, the sought change in parameter is …, where …	*Используя уравнение ..., искомое изменение параметра будет равно ..., где (следует пояснение величин)..*
2. The requirement of … formulated for … determines the … and sets the value of …	*Сформулированное для ... требование ... определяет ... и задает величины ...*
3. Thus for the case of …, ignoring … values, the equation … may be rewritten with the help of … equation as …	*Таким образом, для случая ..., пренебрегая величинами ..., уравнение ... с помощью уравнения ... можно переписать как ...*
4. However, other components of the … also play an important part in the achievement of … since they dictate the … conditions and influence the interaction between	*Однако другие компоненты ... также играют важную роль в удовлетворении требований ..., поскольку они определяют условия ... и влияют на взаимодействия между ... и*

… and …	...
5. Figure … illustrates the relationship of the … ratio for various … levels expressed by …, where … is defined be the …	*Рисунок иллюстрирует зависимость отношения ... от различных уровней..., определенных как ..., где ... выражено через ...*
6. Figure … presents a comparison between … and … results for the given values of …	*На рисунке ... приведено сравнение ... и результатов, полученных для заданных величин ...*
7. The experimental relationship of … vs … for …, providing that … really holds is presented in Figure …	*На рисунке ... приведена экспериментальная зависимость ... от ..., доказывающая, что формула ... действительно справедлива ...*
8. The … diagram facilitates the determination of the … relationship for … conditions	*С помощью графика ... можно определить зависимость ... для ... условий ...*
9. Since the performance of a … is determined be the … ration, defined as …, the values of … greater than … necessarily imply that a significant improvement in … can be achieved	*Поскольку характеристика ... определяется отношением ..., определяемым как ..., то величины ..., превышающие ..., заставляют сделать вывод о том, что ... может быть существенно улучшено*
10. The success of the … design is therefore due to a combination of such factors as … as well as …	*Следовательно, успех разработки ... определяется совместным воздействием таких факторов, как ..., так же, как и ...*
11. The solution of the … problem is rather to be sought in the region of more predictable … design and better interaction between … and …	*Решение проблемы ... скорее всего следует искать в области разработки более точных методов расчета ... и обеспечения лучшего взаимодействия между ... и ...*

14. ***Check whether these related units (****problem formulation; progress conclusion; analysis of obtained results****) are presented in a logical order in Article 1, and note which components (if any) are missing.***

15. ***Using examples typical for standard structural forms, make several sentences of your own that correspond to Article 1 (See supplement 1).***

16. ***Write the summary.to Article 1, use your own knowledge of the field to make an educated guess. (For reference use exercise 6 and 10).***

17. ***Write out the sections subheadings of Article 1. Determine which of the sections contain the statement of the problem, the description, the ways of its solution and the analysis of the obtained results.***

18. ***Write out all the standard structural forms used in each of the sections in Article 1.***

19. ***Pair Russian word combinations with their English equivalents. Among the presented below word combinations select 10 and make up a short report regarding the main points while preparing the research paper draft.***

1. Включая ненужные детали	A. Brief idea of the actual situation
2. Воспроизводить эксперимент	B. Combine in a single sentence
3. Выбирать и упорядочивать контент	C. Confirm the assumption
4. Выражать желаемую часть	D. Convince audience
5. Достигать цели	E. Emphasize
6. Заявлять о необходимости работы	F. Establish importance
7. Краткое представление о реальной ситуации	G. Evolution of modern science
8. Новичок	H. Express the desired part
9. Обоснованность результата	I. Formally disseminated

10. Объединять в одном предложении
11. Оригинальная исследовательская работа
12. Ориентировать читателей
13. Подтвердить предположение
14. Подчеркивать
15. Предоставлять достаточную информацию
16. Преуспеть в решении согласно заявленной необходимости
17. Сообщать экспериментальную работу
18. Сообщая и обсуждая результаты
19. Убедить аудиторию
20. Устанавливать важность
21. Формально распространяться
22. Эволюция современной науки

J. Including unnecessary details,
K. Newcomer
L. Orient the readers
M. Original research work
N. Provide sufficient detail
O. Reach the objective
P. Reporting and discussing the results
Q. Reporting the experimental work
R. Reproduce the experiment
S. Select and organize the content
T. State the need for the work
U. Succeeded in addressing to the need stated
V. Validity of the outcome

20. Translate English word combinations and use them in preparing the report regarding structuring and analysing the research paper.

Begin your report in the following way: *the subject of the report is …; the author of the text says that …; he points out that …; next the author emphasizes the idea that …; the author goes on saying that …; the text ends with …; the author concludes that …*

.

Use the following word combinations in your answer: the novelty and relevance of research results, to demonstrate the erudition in a special area, to distract the reader from the basic idea, to be methodically and methodologically well-organized, to combine scientific rigor and efficiency, to represent much value for the understanding, greater demands on the moral and ethical image, basic logical and methodological requirements, responsible for the truth of arguments, assumptions and results of research, a particular affirmative proposition, social function of modern

science, abuse of specialized terminology, to solve quite significant scientific and practical tasks, to resist the temptation to repeat material, clear and accurate experimental observation, to construct carefully and concise, to restore the intended meaning, the more mechanical aspects, beware of overusing abbreviations, the full expression.

21. Identify the main purpose by quoting word(s) or phrases from text to support your answer.

ASPECT 2. REVISING THE RESEARCH PAPER[11]

Most of us understand revision as an ongoing, even constant process: every time you hit the delete button, every time you cut and paste, every time you take out a comma or exchange one word for another, you're revising. Real revision requires that you open yourself up to the possibility that parts of your paper might need to be re-thought, and re-written. The revision is worth the extra effort simply by saying that revising a paper will help you to achieve a better grade.

Studies have shown again and again that the best way to learn to write is to rewrite: in the revision process, you improve the reading skills and the analytical skills; you learn to challenge own ideas, thus deepening and strengthening your argument; you learn to find the weaknesses in writing; you may even discover patterns of error or habits of organization that are undermining your papers. Though revising takes time and energy, it also helps you to become a more efficient writer down the road.

The first thing that you'll want to do is to consider whether or not the paper as a whole meets your expectations. The process of analysis involves breaking down an idea or an argument into its parts and evaluating those parts on their merits: when you analyse your own paper, then, you are breaking that paper down into its parts and asking yourself whether or not these parts support the paper as you envision it. Every time we've

[11] *https://depts.washington.edu/owrc/Handouts/Revising%20Your%20Paper.pdf*

prodded you to reconsider your thesis, every time we've provided you with a checklist for writing good paragraphs, we have been encouraging you to break your writing down into parts and to review those parts with a critical eye. Here is a checklist reiterating our earlier advice. Use it to analyse your whole paper, or use it to help you to figure out what went wrong with a particular part of your work.

22. Study the verbs that express communication actions. Create a list of them but only add specific verbs such as justify, converse, or represent, not generic verbs as talk, ask, or dialogue. Complete the given sentences.

Verbs that express communication actions:

clarify	This paper *clarifies* the role of fouls in . . .
describe	This paper *describes* the appliance by which . . .
detail	This paper *details* the algorithm used for . . .
discuss	This paper *discusses* the influence of acidity on . . .
explain	This paper *explains* how the new converting... .
offer	This paper *offers* four suggestions for . . .
present	This paper *presents* the consequences of . . .
proposes	This paper *proposes* a set of parameters for . . .
provide	This paper *provides* the complete agenda and . . .
report	This paper *reports* on our improvement so far . . .
summarize	This paper *summarizes* the results for …

21. Write a summary to the article "Научная статья. Какая она?" in English, omitting the unnecessary details.

Begin your summary in the following way: is/are *studied; considered; analysed; examined; described; discussed; arrived at; developed; inferred; introduced; formulated; outlined; made; summarized.*

НАУЧНАЯ СТАТЬЯ. КАКАЯ ОНА?[12]

Научная работа – это правильно организованное обоснование результата исследования. Важно, чтобы статья содержала новизну и была актуальной. Новизна – это то, что отличает результат данной работы от результатов других авторов. Актуальность – это способность ее результатов быть применимыми для решения достаточно значимых научно практических задач. Статья направлена на решение центральной проблемы, поэтому задача ученого состоит в том, чтобы центральная проблема синтезировала промежуточные и после своего решения создала предпосылки для начала нового познавательного процесса.

Цитирование литературного источника может быть прямым или косвенным, когда одна или несколько мыслей из используемого источника излагаются автором статьи «своими словами», весьма близкими к оригиналу.

В статье необходимо избегать наукообразности и злоупотребление специальной терминологией затрудняет понимание мыслей автора, делает изложение слишком сложным. Стиль изложения должен сочетать в себе научную строгость и деловитость, доступность и выразительность.

23. Study the following material; select and complete the examples of standard structural forms for the IGM and the mathematical apparatus.

The illustrative-graphic material (IGM) of the main part is selected in accordance with the structure and logic of the actual research paper. A certain influence on the IGM selection is also provided by the publication editors and overall set of requirements.

The structure of ***the mathematical apparatus*** is closely connected with the organization of IGM. The general principle is to provide a logically-based development of the article's main idea. Logically grounded change from the initial properties to the resulting statements and final formulas (conclusions) is accomplished through the use of the following words:

According to – в соответствии с *Recalling that – вспоминая, что*

[12] Мейдер В. А. Научная статья. Какая она? (методика и методология) // Вестник ВолГУ. Серия 6: Университетское образование. 2007. №10 С.108-112.

Assuming – исходя из того, что

Given – дано

Is given by – дается (уравнениями)

If and only if – если и только если

Hence – отсюда следует

Let – пусть

Putting – полагая, придавая численные значения

Since – поскольку

Then – тогда

Therefore – отсюда, по этой причине

Thus – таким образом

Using – используя

Where – где

In addition to specialized words and phrases, ***the mathematical apparatus of a research article*** is characterized by a number of standard structural forms. Below are examples of such structural forms in an order that roughly corresponds to the sequence of mathematical calculations.

1. Assuming that …, it is obtained that … — *Предположив, что ..., получаем ...*
2. By substituting for … from …, while making use of … yields: … — *Подставляя в ... из ..., а также используя ..., получаем ...*
3. The equation (Eq.) … is obtained from … as … — *Уравнение получается из ... как ...*
4. Since …, then …, and we find … — *Поскольку ..., то имеем ..., откуда находим ...*
5. By substituting from … it is found that … — *Подставляя из ..., находим, что ...*
6. By the aid of Eqs …, it is obtained that … — *Воспользовавшись уравнениями ..., получаем, что ...*
7. In order to determine …, the Eq … is differentiated with respect to … and equated to …, giving … — *Для того чтобы определить ..., уравнение ... дифференцируется по ... и приравнивается ..., в результате чего получаем ...*
8. Further substitution into Eq … — *Дальнейшие подстановки в уравнения ...*

and Eq … yields respectively … and …	*и ... дают, соответственно, ... и ...*
9. After rearranging and equating the results to …, it is found that …	*После перегруппировки и приравнивания результатов ... находим, что ...*
10. And finally, by substituting into the Eqs … and …, expanding the terms and collecting the like terms in …, the sought equation is obtained in the form …	*И наконец, произведя подстановки в уравнения ... и ... раскрыв члены и сгруппировав подобные члены в ... получаем искомое уравнение в форме ...*

24. Write out and translate the sentences, which contain the specialized words and phrases showing the sequence of mathematical calculations.

Teaching Biology through Statistics: Application of Statistical Methods in Genetics and Zoology Courses [13]

The population of students enrolled in this experimental zoology course was 100% Hispanic, 75% female, 65% upperclassmen (third year or greater), and, as far as their mathematical background, 100% had taken college precalculus and 65% had taken calculus, but only 52% of the students had taken a statistics course. When asked "Do you think that mathematics is very useful for biologists?" in a pre/post instruction manner, the number of students agreeing increased at the end of the semester, and their responses were significantly associated with post instruction ($\chi^2 = 22.789$, degrees of freedom = 3, $p = 0.000$).

Table 2 and Figure 2 summarize the learning gain in biology and statistics obtained by zoology students after working on the bat activity. The results show that learning objectives B, C, F, G, and J were not achieved by students, regardless of class instruction and the opportunity to work on a relevant biological problem

[13] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3164565/

requiring the application of statistical methods. Misconceptions were noted in the inability to formulate hypotheses and understanding of the significance of the probability that statistical tests associate to these hypotheses. For example, when obtaining a p value ≤ 0.05 for an f statistic of a regression equation between two variables, many students did not know whether they should reject the null hypothesis (H_0: there is no relationship between the variables; slope = 0) and accept the alternative (H_a: there is a linear relationship between the variables; slope $\neq 0$), or vice versa.

Table 2.
Results of rubric to assess learning gain after the zoology bat activity[a]

	Achievement level score			
Learning objective	**4**	**3**	**2**	**1**
A. The biological hypotheses reflect knowledge on the biology, ecology, or physiology of the bats	5 (25%)	6 (30%)	8 (40%)	1 (5%)
B. The statistical hypotheses (H_0, and H_a) were correctly stated for every test applied	6 (30%)	3 (15%)	9 (45%)	2 (10%)
C. The p value associated with each statistic was properly reported and correctly interpreted biologically	3 (15%)	4 (20%)	6 (30%)	7 (35%)
D. The data were graphed in a way that would properly describe a pattern	14 (70%)	4 (20%)	2 (10%)	0 (0%)
E. The biological interpretation of the graph was accurate.	6 (30%)	6 (30%)	5 (25%)	3 (15%)
F. Understanding statistical significance	3	4	6	7

[a] *Students could score between 1 and 4 for each learning objective, where 4 = completely achieved, 3 = somewhat achieved, 2 = poorly achieved, and 1 = not achieved.*

This suggests that students confused type I (α) and type II (β) errors and, as a consequence, often drew incorrect conclusions on their results. Although the concept of correlation between variables with sex was understood, as indicated by students being able to ascertain that bat weight and wingspan were associated with sex from calculating high Pearson product-moment correlation coefficients (r), students were unable to distinguish the added value of a regression analysis. Only 30% of the student reports showed complete or partial achievement of this objective (Table 2).

This small group of students included at least two of the following critical elements in their answers: 1) a discussion of how regression can add information on

rate of change by providing a slope for a line describing the relationship between the dependent (weight) and independent (wingspan) variables; 2) a description of how the linear model can serve to predict the wingspan of a bat with a particular weight; 3) an acknowledgment that regression might suggest a nonlinear association between the variables; and/or 4) a mention of the value of r^2 when discussing the fit of the data to the linear model. On the other hand, students were capable of stating informed biological hypotheses related to the physiology of the bats, had no trouble translating numbered data into graphs that adequately described a pattern, and could explain the biological meaning of these patterns (Figure 2.)

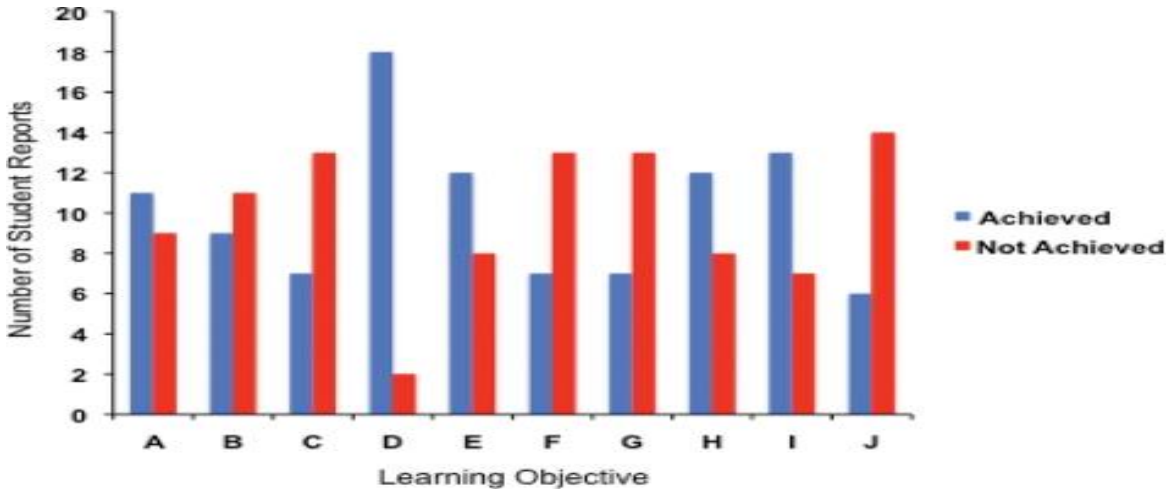


Figure 2. *Number of students in zoology who achieved (scored 4–3 in rubric) or did not achieve (scored 2–1 in rubric) specific learning goals as described in Table 2, after the bat activity.*

This paper presents the results of two independent projects aimed at integrating statistical concepts into undergraduate biology courses – genetics and zoology. In general, we found an increase of understanding of and ability to apply statistical concepts of correlation and association between variables to biology. We also saw improvement in students' ability to use graphs to describe and interpret patterns in numerical data.

In addition, students expressed their understanding of the relevance of statistics as a tool to analyse biological data and understand its significance. However, we identified other concepts for which students had more difficulty demonstrating knowledge gain despite in-class instruction and educational activities. Interestingly, although the

instructional approach and the assessment instruments used were different, these two courses yielded similar results. We will discuss the implications of these results in light of the challenges we face in order to further integrate math and biology, and we provide some suggestions to meet the need for interdisciplinary teaching in these fields.

25. Write out and translate all the standard structural forms for the mathematical apparatus used in the extract above.

26. Complete sentences using the information from the exercise 25; translate them. State to which sections (Introduction, the Body, or Conclusion (Concluding Remarks) they belong to. Place the sentences into logical order.

1. The solution of the … problem is rather to be sought in the region of more predictable … design and better interaction between … and …
2. The scope of the present effect, which began in …, includes the analysis, design, fabrication, and testing of ….
3. The presented research program plans to demonstrate the … of the …system when subjected to … during …
4. The present research project is a …. – sponsored endeavour which responds to the industry requirements for …
5. Thus we are fully justified in observing that …
6. It is necessary to have a tool that would provide an accurate description of the … processes at the level of …
7. In order to obtain the … formulation for …, the results of experimental investigation of … were examined …
8. It has been shown that …
9. However, other components of the … also play an important part in the achievement of … since they dictate the … conditions and influence the interaction between … and …
10. One aim of this paper is to provide an overview of … and to study ways in which … can be exploited in order to improve …

27. Express your opinion on the following statement. Prepare a short report regarding the following statement.

The two words “information” and “communication”" are often used interchangeably, but they signify quite different things. Information is giving out; communication is getting through. *Sydney J. Harris*

28. Complete the sentences supplying them with information on your own research activities.

1. The present paper deals with...
2. The research is aimed at...
3. An attempt has been made...
4. We have applied the method of...
5. The method has been applied together with...
6. Some features of the phenomenon have been described with the help of ...
7. We wanted to have a full view of ...
8. It’s argued that ...
9. The paper abounds in...
10. On the basis of the comparison made...
11. Interdependence between ... has been revealed.
12. Research into ... provides an answer to the question...
13. The research provides the answers to a multitude of questions facing ... and gives us the tools which...
14. The main provisions of the research have been reported at...
15. Some disputable issues have been discussed in...
16. The reliability of the results obtained can be verified...
17. The results of the research have been reflected in the form of ...

UNIT 3. WRITING PROFESSIONAL CORRESPONDENCE

1. ***State your opinion on the following quotation from "Climbing the Corporate Matterhorn" by James A. Newman and Alexander Roy.***

"Whatever your program in college, be sure to include courses in writing and speaking. Executives must constantly write instructions, reports, memos, letters, and survey conclusions. If this comes hard to you, it will hold you back."

2. ***Pair English word combinations with their Russian equivalents and compose 10 sentences regarding the role and types of academic communication in research project.***

1. Abbreviated language	A. Быть более оперативным и тактичным
2. Adopt informal tone	B. Важные вопросы без ответа
3. Appropriate tone	C. Внимательно рассмотреть
4. Appropriately respectful	D. Задумчивый / почтительный тон
5. Carefully consider	E. Индивидуальное взаимодействие
6. Carefully convey the message	F. Может служить неофициальным предложением
7. Convey the meaning	G. Оставаться на связи
8. Deliberate insult	H. Принять неофициальный тон
9. Formal salutation	I. Производственные отношения
10. Important questions unanswered	J. С точностью передать сообщение
11. In-person interaction	K. Сокращенный язык
12. May serve as informal proposal	L. Соответственно уважительный
13. Productive relationship	M. Соответствующий тон
14. Stay in contact	N. Тема сообщения
15. Subject line	O. Тщательный ответ
16. Thorough response	P. Умышленное оскорбление
17. Thoughtful/respectful tone	Q. Формальное приветствие
18. To be addressed more rapidly and tactfully	

19. Well (poorly) written email	R. Хорошо (плохо) написанная электронная почта

3. ***Express your opinion on the following statement. How would you characterize*** *"an essential step to effective communication"?*

The key is to first understand your own particular communication style so you can match your communication style to that of the audience. Whether you're speaking with your boss, employees or an audience of thousands, matching your communication styles to the folks you need to hear your words is an essential step to effective communication.

4. ***Retell Aspect 1, point out the main sentence(s) of each logical part, rewrite the sentences, skipping the pointless aspects.***

ASPECT 1. THE FUNDAMENTAL COMMUNICATION STYLES[14]

Over the past two decades of research have had found that there are four fundamental communication styles: *Analytical; Intuitive; Functional; Personal.* No communication style is inherently better than another but picking the wrong style shuts down listening and can spell trouble. Learning to build flexibility allows to hear more successfully the important things you need to communicate. One major philosophical difference that separates the four communication styles is the extent to which you communicate with emotions or with data. Nonetheless as a starting point, these are emblematic of the myriad ways that we like to communicate.

You like hard data, real numbers, and you tend to be suspicious of people who aren't in command of the facts and data. You typically like very specific language and dislike vague language. You often have little patience for lots of feeling and emotional words in communication. One big plus is that because you like communication to be

[14] https://www.forbes.com/sites/markmurphy/2015/08/06/which-of-these-4-communication-styles-are-you/2/#7e38797254ea

fairly unemotional, you're often able to look at issues logically and dispassionately, which means others tend to see you as having high-levels of data and informational expertise. The potential downside is that you may strike certain people as being cold or unfeeling, which sometimes has negative political and relational consequences.

You like the big picture, you avoid getting bogged down in details, and you cut right to the chase. You don't need to hear things in perfect linear order instead prefer a broad overview that lets you easily skip right to the end point. One big plus is that your communication is quick and to the point. You don't get stalled by needing too many details, and you're comfortable with big ideas and out-of-the-box thinking because you're good with thinking big, you can also enjoy challenging convention. The potential downside is that you may not always have enough patience and you may risk missing an important point.

You like process, detail, timelines and well-thought-out plans. You like to communicate things in a step-by-step fashion so nothing gets missed. One big plus is that your communication generally hits all the details and nothing gets missed. When you're on a team, people will often turn to you to be the implementer, because they have confidence in your love of process and detail because you're focused on things like process and detail, you're the person who is typically asked to play Devil's Advocate. The potential downside is that you may risk losing the attention of your audience.

You value emotional language and connection, and use that as your mode of discovering what others are really thinking. You find value in assessing not just how people think, but how they feel. You tend to be a good listener and diplomat, you can smooth over conflicts, and you're typically concerned with the health of your numerous relationships. One big plus is that your communication allows you to build deep personal relationships with others. People will often turn to you as the "glue" that holds groups together. And you're typically able to pick-up 'vibes' that others may miss because you're attuned to the emotional aspect of communication.

5. ***Look through Aspect 1 again and find the sentences where the author describes the types of communicators. State out their basic characteristics.***

– The Analytical Communicator.
– The Intuitive Communicator.
– The Personal Communicator.
– The Functional Communicator.

6. ***Answer the following questions.***

- Why is it essential to write in complete sentences when communicating proficiently? What does writing appropriate sentences speak about you in the workplace?
- Do you have a particular style of communicating? Do you know what it is, including its strengths and weaknesses?
- How does it compare to the styles of others?

7. ***Study the following material***[15]***; point out the features of the three main sections in standard job letters.***

The purpose of a formal letter is serious: it may be a formal application for a job, a formal statement of a job offers, a formal thank-you note following an interview, a formal document from your employer offering a promotion, or a formal performance review that will go into your permanent employee file. Most standard job letters consist of three main sections – *an opening, middle, and a closing.*

Opening: introduce yourself and purpose for writing. Identify the position you are seeking by name and state how you learned of the position. Establish that you have at least the minimum requirements for the job by listing your specific academic degree and relevant work experience.

Middle: emphasize how your skills directly relate to the responsibilities listed in the job advertisement. Also, if you have distinctive work or internship experiences or if

[15] *http://www.nature.com/scitable/ebooks/english-communication-for-scientists-14053993/118520525#bookContentViewAreaDivID*

you have taken specialized training courses that are directly relevant to the needs listed in the job adv., describe them here.

Closing: invite the reader to view the attached résumé and express willingness to provide more information. State that you are available for an interview and thank for taking time to review your application. Do not use your closing to impose a deadline for a response, it might have a negative effect.

8. Answer the following questions.

- Do you think including a salutation in an e-mail message is important? Why or why not?
- Do you use salutations when writing your e-mail messages?
- How do you feel when you receive a message that addresses you by name?
- How do you feel when the salutation is omitted?

9. Regarding the studied information (Ex. 7), study and analyse two formal email letters below: state their difference and the possible mistakes. Comment on the following sections: opening, middle, closing.

Example 1.

Dear Prized Sir,

I very much liked your fresh paper in the Journal of Bacteriology. Your results were notable, and your manners were very rock-hard. I have worked on my Ph.D. research as well, and I would like to remain working in this area under your erudite leadership. Would you kindly tell me whether you have any postdoctoral positions available in your extremely considered laboratory?

Example 2.

Dear Sir,

I enjoyed your recent paper in the Journal of Bacteriology. I have worked on my Ph.D. research as well, and I would like to continue working in this area under your guidance. Would you please tell me whether you have any postdoctoral positions available in your laboratory?

Thank you for your time,

Thank you for your time,

Pablo Masklike.

Pablo Masklike.

10. Write a well-organized paragraph announcement describing a professional retraining program for the executives.

Note: *this information is intentionally confused; you must choose how to organize it and add any extra information needed for clarity.*

1. Explain that QWERTYLU Industry Co will compensate any employee the full cost of tuition and books if that employee attends training.
2. Describe the plan. Vista Municipal Academy, in cooperation with QWERTYLU Industry Co, will offer a group of courses for college credit at very convenient locations for our executives: the sessions will be offered at your downtown and branches.
3. Tell executives that they should call Masaku Ebru at Ext. 760 if they are interested. You'd better reference the tuition: $180 for a semester session.
4. Explain that we (QWERTYLU Industry Co) are willing to pay these fees because we value education highly.
5. Make it clear that executives must receive a grade of B or higher before they are eligible for refund of session and book fees.
6. It might be a good idea to attach a list of the courses and the times that they will be offered. Include a deadline date for calling Masaku.

11. Study and analyse two e-mail letters. State their difference and the possible mistakes. Comment on the following aspects: purpose, tone, and content).

Example 1.	***Example 2.***
From: Jack Link	**From:** Kevin Li-Wong

Subject: Postdoc?!

Date: April 26, 2010, 10:05:32 AM CDT

To: Smith

Hey Prof. Smith,

I'm finishing my Ph.D. this spring and am looking for a postdoc. I found your laboratory page and supposed I'd ask if you have any places open. If you could get back to me soon, that'd be great.

Hope to hear from you,
Jack Link.

Subject: Positions for postdoctoral researchers?

Date: April 29, 2010, 4:32:02 PM CDT

To: Smith

Dear Professor Smith,

My name is Kevin Li-Wong, and I am finishing my Ph.D. in biomedical engineering at Kent University in May. I heard your presentation at the BMES Annual Meeting, and my experience in kinesiology and mechanical design overlaps well with your current work on gait analysis and prosthetic development. I'd like to continue working in this area, and I wondered whether you might have any postdoctoral positions available in your laboratory. Are you currently hiring additional researchers?

Thank you for your time and consideration,
Kevin Li-Wong.

12. State your opinion on the following. Why or why not?

Marilyn vos Savant, the American writer and magazine columnist, said, *"When our spelling is perfect, it's invisible. But when it's flawed, it prompts strong negative associations."*

13. Write the summary to the article "Профессиональная коммуникация: теории и модели" in English, omitting the unnecessary details.

Begin your summary in the following way:

– *The object (purpose) of this paper is to present (to discuss, to describe, to show, to develop, to give) ...*
– *The paper (article) discusses some problems relating to (deals with some aspects of, considers the problem of, presents the basic theory, provides information on, reviews the basic principles of) ...*
– *First (At first, At the beginning) the author points out that (notes that, describes) ...*
– *The next (following) paragraph deals with (presents, discusses, describes) ...*
– *Next (Further, Then) the author tries to (indicates that, explains that) ...*
– *Finally, (In the end) the author admits-(emphasizes) that...*
– *The paper (article) is interesting (not interesting), of importance (of little importance), valuable (invaluable), up-to-date (out-of-date), useful (useless)...*

Use the following word combinations in your answer: professional communication, specially trained professionals, to establish contact more effectively, to conduct negotiations and selection interviews, business correspondence, linear model of communication, technical and semantic noises, an essential element, technical and semantic noises, the noise model, the factor model, transmitted values, numerous potions, communication process, an active influence, unidirectional process, interference, balanced communication model, linear and unidirectional model, the sender and recipient, equal partners, the direct connection, the feedback, coding, decoding, encoding, interpretation.

ПРОФЕССИОНАЛЬНАЯ КОММУНИКАЦИЯ: ТЕОРИИ И МОДЕЛИ[16]

Профессиональная коммуникация – коммуникация, которую осуществляют специально подготовленные профессионалы: эффективно

[16] http://www.psychologos.ru/articles/view/professionalnaya-kommunikaciya%20?%3E

устанавливать контакт, проводить переговоры и выступления, вести деловое общение, проводить отборочные интервью, вести деловую переписку.

Линейная (классическая) модель коммуникации Г. Лассуэла (1948) включает 5 основных элементов коммуникативного процесса: кто? (передаёт сообщение) – коммуникатор; что? (передаётся) – сообщение; как? (осуществляется передача) – канал; кому? (направлено сообщение) – аудитории; с каким эффектом? (эффективность сообщения) – результат.

Шумовая модель коммуникации К. Шеннона – У. Уивера дополнила линейную модель существенным элементом – помехами (шумами), затрудняющими коммуникацию. Авторы выделили технические и семантические шумы – первые связаны с помехами в передатчике и канале, а вторые с искажением передаваемых значений при восприятии содержания. Коммуникация концептуализировалась авторами как линейный, однонаправленный процесс.

Факторная модель коммуникации Г. Малецки является одним из многочисленных вариантов развития модели коммуникации Шеннона-Вивера включила, помимо базовых элементов, ещё около двух десятков факторов, составляющих контекст процесса коммуникации и активно влияющих на его субъектов. В циркулярной (замкнутой), сбалансированной модели коммуникации В. Шрамма и К. Осгуда (1954) было предложено рассматривать отправителя и получателя информации как равноправных партнёров, а также был сделан акцент на обратной связи, которая уравновешивала связь прямую: кодирование – сообщение – декодирование – интерпретация – кодирование – сообщение – декодирование – интерпретация.

14.Study the material in Aspect 2; summarize the essential information.

ASPECT 2. COVER LETTERS AND RÉSUMÉS

Using a professional tone should be as objective and specific as possible in its tone. As you choose details to emphasize, be as accurate, forthright, and truthful as you can be. Tone is critically important: employers want to avoid hiring someone who seems arrogant or timid, so if the tone of your letter is too boastful or too meek, you can make a bad impression (See Supplement 2).

Writing a career objective should offer a succinct, specific statement indicating what field of work you are seeking.

1. The following is an example of a poorly crafted career objective:

Objective: *To use the impressive experimental and analytical skills I honed and developed numerous courses in biochemistry and my own research to improve the water quality of our nation's system of lakes. To bring my proven team0building skills to bear in a competitive environment that will reward my leadership and vision.* [This example is full of redundant phrases like "honed and developed" and other boastful, broad statements about ability like "my leadership and vision", you shouldn't include rewards as overconfidence in abilities]. ***An objective statement shouldn't brag about skills: the recruiter will determine how valuable skills are during the interview.***

2. Now, consider a second objective that is much more appropriate to the situation:

Objective: *To apply my training in chemistry to maintain and improve water quality in the Great Lakes system.* [This example is more succinct and specific, here, the author refers to background without bragging about abilities and notes interest in water quality, which shows interests overlap with the organization's research].

3. You might even tailor objective statement to one particular job advertisement, as in the following example:

Objective: *To work as a research chemist for Great Lakes Coastal Science Corporation.* [This example has identified a very specific goal to fit one particular job announcement].

The last two objective statements don't make any claims about the quality of the applicant's abilities, instead, they simply help the recruiter decide if the applicant knows what he or she wants; whether you have applied for the right job.

Choosing résumé is a summary of the education, work experience, and accomplishments and proposal reviewers use résumés to decide whether you are qualified to do the proposed work. One of the key functions of a good résumé is to identify and describe the qualifications you have that are unique; it should highlight attributes most relevant to the particular audience. Be sure to include specific phrases that match the terms listed in the job ad. A standard résumé typically includes multiple sections (See Supplement 3).

Presenting education in a section before employment history, especially if you are earning degree from a prestigious university that carries weight with employers. You should present the schools you have attended in reverse chronological order, with your most recent degrees listed first.

Presenting your experience in reverse chronological order, placing your most recent job first. Include some detail about the project and your responsibilities, but leave longer discussion of the project for the job letter.

Consider organizing ***employment history*** into two different categories – *"Relevant Employment"* and *"Other Employment"*. Keep the "Relevant Employment" section on the first page.

Formatting your resume is to make key details stand out while still following a professional format: influences how easily they find important information. Proofread résumé carefully to avoid careless errors in spelling, grammar, or format.

15. ***Write a letter in which you apply for the position in your professional field; explain your qualifications, and express interest in hearing from the organization.*** *Pay special attention to your tone; be confident in your credentials, but do not be arrogant.*

16. ***Study and compare these two samples: state where student is e-mailing his colleague and where is e-mailing the chief about the same problem.***

Example 1.	***Example 2.***

From: *Bob Kofi* ***Subject:*** *Gel box?* ***Date:*** *March 29, 2010 2:44:19 PM CDT* ***To:*** *Zither Rught* *Zither Rught: Do you know what's up with the gel box? The leads aren't staying in anymore. What should I do?* *Thanks,* *Bob.*	***From:*** *Bob Kofi* ***Subject:*** *Problems with the gel box leads* ***Date:*** *March 29, 2010 2:44:19 PM CDT* ***To:*** *Hones Turro* *Dear Hones,* *When I was setting up the gel box yesterday, I noticed that the leads no longer fit properly. Should I try to fix them, or should we look into other options?* *Thank you for your time,* *Bob*

17. Write a response to this professor in which you thank for her interest and send the paper she has requested.

To: Fritch Elmer

From: Jeanne-Marie Beauchamp

Dear Dr. Elmer,

We met last week at the International Nuclear-powered Symposium in Barcelona, where I attended your talk on reverse field pinch plasmas.

In your talk, you referred to a research paper that you recently submitted to the Journal of Mixture Energy. Would you be willing to send me a pre-print of this paper at your earliest convenience?

Thank you for your time,

Pierre.

18. Write a series of e-mails in which you primarily contact the professor, explain your interest in the lab, list your qualifications, and then follow up on his or her response to you.

Situation: You have just graduated from university with master's degree. You would like to continue studying toward a Ph.D., but you are not sure whether the professor you would like to study with is presently taking new students.

19. Use the studied information, write a draft of your résumé. Follow the instructions below:

1. Consider your own academic career (work experience), and make a list of specific jobs you have held and courses you have taken that could be attractive to an employer in your field.
2. Consider listing relevant courses, particularly those that relate to the job you are applying for.
3. Provide details about specific projects you worked on during your undergraduate training.
4. Add in two to three phrases that describe each item in more detail.
5. Group the items on your list by putting your work experiences together and your coursework or academic research together.
6. Finally, organize your experiences chronologically by placing more recent experience at the top of each group and older experience at the bottom.

UNIT 4. THE PROFESSIONAL ORAL PRESENTATIONS

1. ***Express your opinion and prepare a short report regarding the following statements, give your examples.***

Use the following expressions: *to agree with, to be in agreement with, to be consistent with, to be in keeping with, to be in line with, to fit into, to hold for, to be valid for, to be true for, begin with the following phrases: to my mind …, to my knowledge …, from my point of view …, as far as I know …, in my opinion …, as far as I can judge ….*

Marilyn vos Savant, the American writer and magazine columnist, said, *"Although spoken English doesn't obey the rules of written language, a person who doesn't know the rules thoroughly is at a great disadvantage."*

The American writer Wallace Stegner said, *"Hard writing makes easy reading."*

2. ***Pair English word combinations with their Russian equivalents; compose 11 sentences regarding the difficulties, advantages and necessities in oral communication (power point presentations). Do the reverse translation.***

1. Adopt a stable and confident position	A. Укрепить контакт
2. Appropriate / effective ways	B. Взаимодействие
3. Avoid missing important things	C. Установить срок действия
4. Crucial elements	D. Теоретически доказательство
5. Distracting and frustrating	E. Процесс подготовки
6. Elaborate on the study	F. Организовать (выявить) логическую последовательность
7. Emphases the uniqueness	G. Недвусмысленно указывая
8. Engage the audience	H. Важнейшие элементы
9. Ensuing interaction	I. В автономном режиме
10. Establish stronger contact	J. Вставьте соответствующий переход

11. Establish the validity
12. Excess use
13. Express appreciation for the efforts
14. In a concrete manner
15. In a stand-alone way
16. Indicating unambiguously
17. Insert an appropriate transition
18. Make memorable and high-impact presentation
19. Organize (reveal) the logical sequence
20. Preparation process
21. Present the research content accurately
22. Provide with an opportunity to communicate with audiences
23. Receiving insightful comments
24. Serve as encouragement for next academic presentation
25. Theorem-proof fashion
26. Well-rehearsed speeches

K. Принять стабильную и уверенную позицию
L. Соответствующие и эффективные способы
M. Получить проницательные комментария
N. Разработать исследование
O. Конкретным образом
P. Подчеркнуть уникальность
Q. Четко представить исследовательский контент
R. Хорошо отрепетированные речи
S. Обеспечить возможность общения с аудиториями
T. Избегайте недостающих важных вещей.
U. Отвлекающие и расстраивающие
V. Чрезмерное использование
W. Сделать незабываемую и впечатляющую презентацию
X. Выразить признательность за усилия
Y. Служите в качестве поощрения для следующей академической презентации.

3. Retell Aspect 1, divide the presented information into logical parts and point out the main sentence(s) of each logical part; rewrite the sentences, skipping the pointless aspects.

ASPECT 1. STRUCTURING THE ORAL PRESENTATION[17]

Oral presentations allow to establish stronger contact and convince through verbal and nonverbal delivery, as well as the ensuing interaction. Oral presentations must emphasize both the motivation and the outcome of it, must present just enough evidence to establish the validity of this outcome; must aim to inform. The presentation should focus on getting a main message across in theorem-proof fashion: identifying the main message early in the preparation process is the key to being selective in your presentation.

The opening: similar to the *Introduction* of a scientific paper, which provides *the context, need, task,* and *object of the document,* with three main differences. Include the following five items in your opening: *attention getter, need, task, main message, and preview* (See Supplement 4).

The context is best replaced by an *attention getter*.

The object of the document is best called *the preview* – outlines the body of the presentation, preparing the audience for the structure of the body.

The *main message* – is the one sentence you want them to remember.

The body**:** identify two, three, four, or a maximum of five statements you can make to support your *main message (main points)*. Next, two to five statements to support each main point *(sub points)*. Organize your main points and sub points into a logical sequence, as a rule, place your strongest arguments first and last, and place any weaker arguments between these stronger ones (See Supplement 4).

The closing: wrap up in three steps: *a review, a conclusion, and a close*: 1) review the main points to help to remember and prepare for conclusion; 2) conclude by restating your main message and complementing it with other interpretations of your findings: 3) close the presentation by indicating elegantly that these are your last words, thus giving the signal to applaud (See Supplement 4).

Conversions are crucial elements: you know when you are moving from one main point to another, but for attendees these shifts are never obvious. Attendees

[17] http://www.nature.com/scitable/ebooks/english-communication-for-scientists-14053993/118520778#/bookContentViewAreaDivID

have no attention left to guess at its structure, so tell where you are in the course of a presentation: 1) a good body helps to understand the evidence, a review helps to remember it; 2) the review effectively prepares for the conclusion: resist the temptation to try to say too much, so that you are forced to rush. Ideally, include your audience and show the logic of your structure in view of your main message.

When receiving a question, don't rush into answering it: 1) listen to the entire question to make sure you understand it; 2) don't interrupt the questioner; 3) even if you know the answer, think: take time to construct a concise, to-the-point answer: you reveal your expertise by answering them usefully.

4. Look through Aspect 1 again; find the sentences and state the main information regarding:

– Structuring the oral presentation.
– Instructive presentation's structure.
– Dealing with questions.

5. What would you do? Explain your decisions and possible solutions.

- If the person does not know what the given drawing represents.
- If the person does not know what you are trying to tell with this drawing, the message is missing.

6. Pair Russian word combinations with their English equivalents; compose 12 sentences describing the meaning of effective presentation. What can be your advice for preparing the presentation.

1. Актуальна и значима	A. Visualize the material
2. Безупречное форматирование слайдов	B. Instantly becomes clear
3. Более впечатляющими и запоминающимися	C. Graphical embodiment
	D. Creativity
4. Визуальная и графическая информация	E. Poor material flow
5. Внешний вид демонстрации	F. Necessary skills of presentation

6. Вызывать недоумение
7. Графическое воплощение
8. Заниматься в сфере графического изображения
9. Информативная работа
10. Консультация с экспертом
11. Мгновенно становится понятным
12. Наглядно показать материал
13. Нагроможденный различными данными
14. Не уделять внимание слайдам
15. Нежелание вникать в суть темы
16. Некачественная подача материала
17. Необходимые навыки презентации
18. Неоправданные результаты
19. Обозначить ключевую точку
20. Полномасштабный документ
21. Практически невозможно
22. Распространенные ошибки
23. Соответствие параметрам
24. Творческий потенциал
25. Улучшить качество и продуктивность выступлений
26. Универсальное приложение

G. Visual and graphical information
H. Informative work
I. Consultation with an expert
J. Flawless formatting of slides
K. To be engaged in the sphere of graphic representation
L. Full-scale document
M. Common Errors
N. Practically impossible
O. The universal application
P. Heaped up with different data
Q. To cause bewilderment
R. Unwillingness to delve into the essence of the topic
S. Unjustified results
T. Improve the quality and productivity of performances
U. Conformity to parameters
V. Appearance of the demonstration
W. More impressive and memorable
X. Actual and relevant
Y. Mark the key point
Z. Do not pay attention to slides

7. ***Study the following material***[18]***; point out the three main components in delivering the oral presentation and state their features.***

Make sure you address the audience: even if you have slides, tell the audience in a stand-alone way. In particular, anticipate your slides: you should know what your next slide is about.

– *Verbally (what you say)*. Memorize the outline of your presentation: you will need to think about what to say next and find the most appropriate words to say it just pause. Even if attendees do notice the silence, they will think that you are choosing your words carefully.
– *Vocally (how you say it with your voice)*. Vary the tone, rate, and volume of voice as a function of the meaning, complexity, and importance of what you are saying. You need not invent a new intonation pattern: you simply need to amplify your normal pattern.
– *Visually (everything the audience can see about you).* Adopt a stable, confident position: for example, move closer to the audience for taking questions. Establish eye contact: engage the audience by looking them straight in the eyes.

8. Speak on simple topic ***"Tell us about your research." Practice to avoid the systematic delivery shortcomings like the undesired behaviour (err, um, ah, ohh, hmm, etc.)*** they should let you know without interrupting you.

9. ***Write the summary to the article "Теория речевых актов в русле межкультурной деловой коммуникации***[19]***" in English, omitting the unnecessary details.***

Begin your summary in the following way:

– *The object (purpose) of this paper is to present (to discuss, to describe, to show, to develop, to give) ...*
– *The paper (article) discusses some problems relating to (deals with some aspects of,*

[18] *http://www.nature.com/scitable/ebooks/english-communication-for-scientists-14053993/118520916#bookContentViewAreaDivID*

[19] http://journal.mrsu.ru/wp-content/uploads/2014/07/statya-mosevnina-sveta5.pdf

considers the problem of, presents the basic theory, provides information on, reviews the basic principles of) ...

- *First (At first, At the beginning) the author points out that (notes that, describes) ...*
- *The next (following) paragraph deals with (presents, discusses, describes) ...*
- *Next (Further, Then) the author tries to (indicates that, explains that) ...*
- *Finally, (In the end) the author admits-(emphasizes) that...*
- *The paper (article) is interesting (not interesting), of importance (of little importance), valuable (invaluable), up-to-date (out-of-date), useful (useless)...*

Translate the following English word combinations, find in text and use them in your answer: intercultural business communication, to solve issues related to, cultural differences, to represent a barrier to business communication, crucial role, linguistic personality, eliminate typical mistakes, transfer to, overcome intercultural shock, mutual understanding, stereotyped-behavioural conditions, business interpersonal communication, simultaneous accumulation, cultural knowledge, achieve the goals and objectives, general communicative plan.

Деловые партнеры разных национальностей постоянно общаются решая вопросы, связанные с их профессиональной сферой. Однако культурные различия представляют преграду для деловой коммуникации. Факторы (язык, лингвистическая индивидуальность, жесты, традиции, национальный характер и т.д.) играют решающую роль в межкультурной деловой коммуникации.

Знание факторов помогает устранить ошибки и непонимание в сфере межкультурной деловой коммуникации, поэтому в последнее время акцент переносится именно на социокультурные факторы и проблемы коммуникации. Межкультурная деловая коммуникация – искусство, владея которым возможно преодолеть межкультурный шок, достичь взаимопонимания с иностранным деловым партнером.

Межкультурная деловая коммуникация определяется стереотипно-поведенческими условиями культур коммуникантов: партнеры по бизнесу

используют иностранный язык с одновременным накоплением культурологических знаний и формированием способности понимать ментальность носителей другого языка.

Регламентированность (ограничения по ряду национальных и культурных традиций, профессиональных и этических принципов) – одна особенностей межкультурной деловой коммуникации. Межкультурная деловая коммуникация включает передачу/обмен/получение деловой или профессиональной информацией между деловыми партнерами с учетом вербальных и невербальных средств. Люди разных профессий большую часть времени проводят в деловой межличностной коммуникации.

10. Express your opinion on the following statement. Prepare a short report regarding the following statement.

Moments of interaction are harder to prepare for than one-way presentations, and too many scientists forgo this preparation altogether.

11. Find the following English word combinations in Aspect 2; write out the sentences and translate them.

To elaborate on study, soporific talks, completely different medium of communication, to maintain the focus, persuasive arguments and evidence, to be profound and important, insightful comments, to be impossible to communicate and persuade effectively, the appropriate and effective ways, engaging and entertaining the audience.

12. Study the material in Aspect 2; summarize the essential information, state the key words.

ASPECT 2. HOW TO GIVE AN ACADEMIC TALK[20]

[20] https://pne.people.si.umich.edu/PDF/howtotalk.pdf

Oral presentations at academic meetings are one of the biggest events for the society. Before making an academic presentation, you need to spend considerable time to elaborate on the study, collect data, and analyse the results. In order to make your points clear, you need to be careful in various aspects. You should stay focused using concise slides. You should have better chance of having active discussions and receiving insightful comments after the presentation if you give a presentation using the appropriate and effective ways.

The Awful Academic Talk: The speaker approaches the head of the room and sits down at the table. *(You can't see him/her through the heads in front of you.)* S/he begins to read from a paper, speaking in a soft monotone. *(You can hardly hear. Soon you're nodding off.)* Sentences are long, complex, and filled with jargon. The speaker emphasizes complicated details. *(You rapidly lose the thread of the talk.)* With five minutes left in the session, the speaker suddenly looks at his/her watch. S/he announces – in apparent surprise – that s/he'll have to omit the most important points because time is running out. S/he shuffles papers, becoming flustered and confused. *(So do you, if you're still awake.)* S/he drones on. Fifteen minutes after the scheduled end of the talk, the host reminds the speaker to finish for the third time. The speaker trails off inconclusively and asks for questions. *(Thin, polite applause finally rouses you from dreamland.)*

Why do otherwise brilliant people give such soporific talks?

The pattern is an understandable, if dysfunctional, reaction to stage fright. It's easier to hide behind the written paper – which you've had plenty of time to work through – than to simply stand up and talk.

But second, it's part of academic culture – especially in the humanities and qualitative social sciences. It's embedded in our language: we say we're going to "give a paper." *Presentations are not journal articles*. They're a completely different medium of communication, and they require a different set of skills. Professors often fail to recognize this. Even more often, they fail to teach it to their graduate students.

Everybody has to confront stage fright in his/her own way but academic culture is something we can deliberately change.

Principles of Effective Talks

Listening is hard work. Especially at conferences, where audiences listen to many talks over many hours, *people need the speaker's help* to maintain their focus (See Supplement 5). Therefore, any effective talk must do three things:

- *Communicate your arguments and evidence.*
- *Persuade your audience that they are true.*
- *Engage and entertain.*

Academics too often forget about the third item on this list. Sometimes we think it follows automatically from the first two but it doesn't. It is impossible to communicate and persuade effectively without engaging and entertaining your audience. Keeping people interested and mentally alive, entertaining them, matters because in order to communicate, *you need their full attention.* This is the true meaning and significance of "engagement." In an academic talk, entertainment isn't about making your audience laugh or distracting them from their troubles – it's about keeping them focused on and interested in what you have to say.

Some Rules of Thumb: no rule applies always and everywhere, but the following principles work almost all the time.

USUALLY BETTER	USUALLY WORSE
Talk	*Read*
Stand	*Sit*
Move	*Stand still*
Vary the pitch of your voice	*Speak in a monotone*
Speak loudly, facing the audience	*Mumble, facing downward*
Make eye contact	*Stare at your laptop*
Focus on main points	*Get lost in details*
Use outlines, images, and charts	*Have no visual aids*
Finish within your time limit	*Run overtime*

Rehearse	*Don't practice because you're too busy working on the slides*
Summarize your main points at the beginning and end	*Start without an overview; trail off without a conclusion*
Notice your audience and respond to its needs	*Ignore audience behaviour*
Emulate excellent speakers	*Emulate your advisor, even if s/he gives lousy talks*

13. Find ten unusual ways to express your opinion and show your disagreement with the authoritative person without making him/her lose face in front of the audience.

Situation: Imagine you are taking part in a discussion. A respected scientific authority just stated the oral presentation at conference which was boring, and there is nothing you can do about it. You disagree strongly; in fact, you think that this statement is nonsense.

14. Find a paragraph, passage, or section that is highly descriptive so that you could make excellent use of adjectives and adverbs.

Note: be sure to tell the name of the author and the title of the publication; also why you selected this piece of work.

15. Speak on your research paper dwelling upon the following issues.

1. Composition of the dissertation.
2. Problems discussed in the introductory part.
3. Topicality and novelty of your research.
4. Methods of scientific analysis applied.
5. Findings (anticipated results).
6. Assessment of the results obtained.
7. Practical application.

8. Possibility for further research.
9. Your reports, articles on the problem under research.

16. Prepare a short personal response to the following issues – what is your opinion or reaction to the topic/issue?

- Who you are as a researcher, what interests you, where you see your research moving in the future, what your accomplishments are and how they propel you towards new goals?
- How your work complements the research already happening at the institution where you are applying, or would benefit from collaborations with members of the institution.
- Research thesis: Does the thesis show analysis and depth of thought, or is it mainly descriptive? Does the thesis present an argument about the material, and is it worded as an argument? Is the thesis contestable? (Would someone potentially want to argue with you about it?)

17. Prepare a short personal response to the following issues.

1. *Speak about your research supervisor according to the following plan:*
   - Doctor's degree.
   - Scientific publications.
   - Participation in the work of scientific conferences.
2. *Your ideas of a good supervisor.* (**Use the following expressions:** appropriate supervisor, experienced in the field of your research interests, to guide and advise you throughout your period of study, the responsibilities are shared between student and supervisor, crucial support of the supervisor, to design and carry out work on your thesis, procedures and regulations of writing and defending your thesis, to establishes a stimulating research environment, to provide training in research, to continuously monitor progress, to provide structured feedback, to remain aware of the student's situation and needs, to give plenty of

encouragement, to boost one's confidence, pertinent comments, to appreciate the time and effort, encouragement and support, high level of staff expertise, reputation and influence, to be especially beneficial, holistic and innovative approach).

3.*Your experience working with the supervisor*.

18. What is the most important advice you have for using oral presentation in the workplace? *(See Supplement 5)* ***Be as detailed as possible.***

Presentation is used extensively to communicate in the business world; therefore, it is important to use this communication tool effectively and professionally.

UNIT 5. INTERACTIVE MOMENTS AT A CONFERENCE: DISCUSSING, CHAIRING, AND MODERATING

1. Read the given situation, provide the short report, regarding the stated questions.

When George Bush (George W. Bush's father) ran for president against Bill Clinton in 1992, he used "trust" as a central theme of his campaign. Bumper stickers and posters were made saying "Who Do You Trust." When he made his nomination acceptance speech at the Republican National Convention in Houston, he included several sentences such as, *"Who do you trust to make change work for you?" and "Who do you trust in this election?"* In each case, he should have used *whom* instead of *who*.

Why do you think he made these pronoun errors? Do you think it was intentional or accidental?

2. Pair Russian word combinations with their English equivalents; compose 7 sentences connected with various interactive moments.

1. Быть ближе к аудитории	A. Formal opportunities to interact with scientists
2. Досрочно	
3. Значимая компоновка	B. Chair a presentation session
4. Иллюстрировать визуально	C. Relegate details to a handout
5. Обеспечить глобальное представление	D. State verbally
6. Опираться на ответах конструктивно	E. Illustrate visually
7. Переместить детали в раздаточный материал	F. Meaningful layout
	G. Provide with the global view
8. Поощрять обмен мнениями	H. Be closer to the audience
9. Председатель презентации	I. Encourage exchanges of viewpoints
10. Принять участие в стендовой сессии	
11. Проверить биографическую	J. Extremely brief oral presentation

информацию
12. Решить заранее
13. Следовать инструкциям
14. Сопоставление мелких деталей
15. Стресс от страха перед неизвестным
16. Устранить многие неизвестные
17. Утвердить вербально
18. Формальные возможности взаимодействия с учеными
19. Чрезвычайно краткая устная презентация

K. Build on the answers constructively
L. Follow the instructions
M. Decide in advance
N. Ahead of time
O. Verify the biographical information
P. Stress from the fear of the unknown
Q. Eliminate many unknowns
R. To be accepted for a poster session
S. Juxtaposition of small details

3. Read and summarize the following introduction. Find and write out the sentences regarding the main characteristics of interactive moments:

- *A poster presentation;*
- *Chairing a session;*
- *A panel discussion.*

Scientific conferences offer plenty of formal opportunities to interact with other scientists: you may be asked to present a poster or you may also be called upon to chair a presentation session. Finally, you may be invited to take part in or perhaps even moderate a panel discussion. If you must moderate a panel insist on meeting the panellists or speakers ahead of time: briefly go over the process, verify their biographical information, simply get to know them. Much stress comes from the fear of the unknown, consequently, a short briefing can eliminate many unknowns.

When it comes to interactive moments at a conference: you must master the content and also manage the process; you must launch the interaction, guide it, and wrap it up; you must prepare well, and you must do what you can to help other participants be well prepared, too.

Design your poster like a set of slides and get them across by stating verbally and illustrating visually. Organize these messages into a meaningful layout. Strike up conversation, manage the flow of questions, and be ready to repeat the same explanations to different people. End each conversation on a positive note, ideally by giving people a business card or a handout.

To provide attendees with the global view they need to structure the learning, take time to introduce and close the session, previewing or recapping its contents and linking it to other sessions at the conference. Introduce speakers carefully, daring to break free from traditional, often boring, conventions: think about what they need to know or might enjoy knowing. For a smooth process, manage time and questions gently but firmly. When speakers are in control, be discreet. When they are in trouble, intervene.

During the discussion, follow the moderator's instructions. Listen to what others are saying so you can build on the answers constructively. Prepare the questions you know you will be asked and also for the other panellists: try to meet the other panellists before the session begins. Keep the ball rolling: make short contributions, hand over to other panellists and encourage exchanges of viewpoints.

4. Study the top 5 reasons[21] of importance to participate in conferences. Add your own reasons how participating in the conference can advance your career as a researcher.

Translate the following English word combinations, find them in text and use them in your answer:

- *the most cutting-edge research available;*
- *to increase the visibility of research;*
- *to develop the expertise;*
- *to discuss the research in a clear and meaningful way;*
- *to disseminate the research finding to colleagues;*
- *to create contacts for future employment;*

[21] http://www.apa.org/science/about/psa/2007/11/student-council-1.aspx

– *to make yourself recognizable to future employers;*

1. ***Contribute and learn about the most recent advances in your field:*** conference presentations allow you to present your data during many stages of development. This will allow you to present your most up-to-date findings and receive feedback from colleagues. Additionally, you have the opportunity to attend numerous exciting talks and poster sessions while at the convention. As these presentations often represent the most cutting-edge research available, they can provide you with valuable information far earlier than if you had waited for the publication.
2. ***Advocate for science:*** allows to become aware of the innovative research being generated in particular subfield. As the scientist, we share research findings with people outside our specific discipline to increase the visibility of research and provide interested individuals with more information.
3. ***Learn how to talk about your data:*** to practice the presentation skills and help to develop the expertise needed to discuss the research in a clear and meaningful way. Learning how to answer specific questions and present data to a range of individuals will help you, including future conference presentations, masters or dissertation defences, and classroom teaching.
4. ***Contribute to your overall research profile:*** a history of conference presentations will show potential employers that you regularly disseminate the research finding to colleagues as well as keep up-to-date on the cutting-edge research of the field. Moreover, many conferences offer travel awards, which can be added to your list of awards and honours, which may be the deciding factor between you and other potential job candidates.
5. ***Meet other researchers in your field and potential contacts for future positions:*** the opportunity to discuss your research and learn valuable information from people working with similar techniques, populations, or statistics. Establishing contacts with other scientists will foster friendships with motivated researchers who can be resources for you at any stage of your career. An additional advantage of meeting researchers is that you may be able to create contacts for future employment or post-

doctoral placements, allowing you to learn of available positions earlier. Furthermore, making yourself recognizable to future employers can increase your likelihood of being considered for a position.

5. ***Retell Aspect 1, divide the presented information into logical parts and point out the main sentence(s) of each logical part; rewrite the sentences, skipping the pointless aspects.***

ASPECT 1. THE ESSENTIALS OF INTERACTIVE MOMENTS

Giving Poster Presentations[22]

Being accepted for a poster session at a conference means: you must first create the poster itself, then prepare to interact with visitors during the session; you may also have a chance to promote your poster through an extremely brief oral presentation.

Typically, the scientists have decided in advance which posters or presenters to seek out, they will stop at whatever catches their eyes or ears, listening in on explanations given to other people and perhaps asking an occasional question of their own. Consequently, you should design the poster more like a set of slides. Strive to get the messages across in a stand-alone way: state each message as a short sentence, illustrate it visually; try to reveal the overall structure of the content. Organize related pieces of content in coherent visual units, rather than "wherever it fits". Be selective in what you include and organize the material into a logical structure.

Scientists feel obliged to include a large amount of factual information on their posters – such information is therefore best placed in a one-page handout. When explaining your poster, be brief: if they need more information, they will let you know by asking focused questions. Strike a balance between talking in more depth with a few people and talking in less depth with more people.

[22] http://www.nature.com/scitable/ebooks/english-communication-for-scientists-14053993/118521163#bookContentViewAreaDivID

At conferences, you will be offered the chance to promote your poster by saying a few words in an extremely brief oral presentation. You should limit your comments to the opening of a presentation, with specific focus on the need, the task, the main message. Even without a formal opportunity to promote your poster, you may have many informal moments during coffee breaks or social events. Instead of giving people business cards, you might prepare and distribute small, bookmark-like handouts with your name, affiliation, e-mail, and an invitation to come and see your poster. No matter how you tell about your work, make sure you identify your poster clearly.

6. Look through Aspect 1 again and find the sentences where the author describes:

– Creating and presenting the poster.
– Promoting the poster.

7. Make a list of the 10 issues you are most afraid of, then think of how you should react as a chairperson.

Situation: You have to chair a session at a conference: visualise everything that could go wrong, from a microphone not working to a loud attendee disrupting a presentation to a fire alarm interrupting the session.

8. Pair English word combinations with their Russian equivalents; compose 5 sentences using the given word combinations.

1. A sense of coherence	A. Установить зрительный контакт
2. Assume too quickly	B. Общая конференция
3. Awards ceremony	C. Непрерывное внимание к докладчикам
4. Capacity to manage the situation	
5. Create a connection between	D. Сетевые возможности
6. Diverse presentation	E. Создать соединение между
7. Draw overall conclusions	F. Исследование, открывающее глаза
8. Encouraging questions	G. Лимит времени (сигналы)
9. Establish eye contact	H. Визуальный сигнал

10. Eye-opening study
11. Filled-out evaluation sheets
12. Final pieces of practical information
13. Get a chance to ask
14. Networking opportunities
15. Preview the presentations
16. Question – answer process
17. Remain responsible
18. Repeat or rephrase questions
19. Tackling any issues
20. The overall conference
21. The overall length of the session
22. The undivided attention to the speakers
23. Time limit (signals)
24. Visual signal
25. Wrap up the session

I. Общая продолжительность сессии
J. Поощрять вопросов
K. Решение любых вопросов
L. Чувство согласованности
M. Повторить или перефразировать вопросы
N. Способность управлять ситуацией
O. Оставаться ответственным
P. Предположить слишком быстро
Q. Получите шанс спросить
R. Разнообразная презентация
S. Процесс ответа на вопрос
T. Завершите сеанс
U. Предварительный просмотр презентаций
V. Подводить выводы
W. Заключительные фрагменты практической информации
X. Заполненные оценочные листы
Y. Церемония награждения

9. Retell and divide the presented information into 4 logical parts and point out the main sentence(s) of each logical part; rewrite the sentences, skipping the pointless aspects.

– Introducing the session.
– Introducing the speaker.
– Managing time, questions and answers.
– Wrapping up the session.

Chairing Sessions at conferences [23]

As a chairperson, you introduce the session, you provide the audiences with a global view that will help them assimilate the details. As a chairperson, start by letting them knows about the session's theme by announcing the topics:

This session on the polymer extrusion will bring together presentations on both measurements and numerical simulations. The first two presentations will report on extrusion experiments with novel screw designs: the first for simple extrusion and the second for coextrusion. Then, the remaining three presentations will show advanced finite-element simulations of the flow of material around the extrusion screw: the first of these three will …

Before or after announcing the theme, show how the session fits into the overall conference by relating it to other sessions:

This morning, we heard about polymer in general and about … In this first afternoon session, we are focusing on the rheology of one specific type of polymer processing, namely extrusion.

Conferences are networking opportunities: as a chairperson, you can help the networking process by introducing speakers usefully:

Our next speaker is Mark Gustafson. Mark is originally from Germany. He graduated two years ago as a mechanical engineer from Heidelberg University, and he is now conducting research on combustion-generated nanoparticles in Albert Wang's group at Stanford University.

Depending on the context, it may be appropriate and appreciated to say more personal about the speaker, if you know him or her personally:

Mark is not only a combustion expert – he is also a juggler: he can keep any four things in the air for as long as you want. I had the chance to see him in action at last year's conference banquet, where he suddenly started juggling four dessert plates – very impressive. Right now, however, he is not here to demonstrate juggling, but rather to tell us about …

In addition, you might do so for laureates or nominees:

[23] http://www.nature.com/scitable/ebooks/english-communication-for-scientists-14053993/118521181#bookContentViewAreaDivID

Our next award winner is from Argentina. She has been in the field for more than 25 years, has delighted you with her witty presentations at our conferences, and has impacted generations of students with her now famous textbook on … For a lifetime of achievements in …, our society is pleased to present the K. Chang Award to Ofelia Quino Mendieta.

When introducing speakers, it is difficult to choose the appropriate level of formality, which depends on many factors: if you are unsure being more formal is usually safer than being less formal. Besides introducing the speaker, introduce the topic of the talk: doing so requires connect this topic to other topics in your session:

Thank you again, Ana, for this eye-opening toxicological study. Now we know how toxic combustion-generated nanoparticles can be, the question we all have in our head is, "What do we do about them?" This is a question that the next presentation is going to try to answer. Our next speaker is …

As session chairperson, you are responsible for managing time: you must ensure that the session ends on schedule; you must ensure that each speaker stays within the agreed-upon time limit: both the presentation, the question and answer period. Keeping speakers within their time limit is no easy task: to help prevent this from happening, be gentle but firm. When planning the time of your session, keep in mind the presentations, the questions and answers, also the time you need to introduce the session and the speakers and to wrap up the session. These durations definitely impact the overall length of your session.

As chairperson, you remain responsible for three primary tasks: encouraging questions, managing time, and tackling any issues. At the end of the presentation, let the audience applaud and encourage the audience to ask questions: attendees may need a few moments to think of a question, and to build the courage to ask the first question. Once the question – answer process is launched and announce the end of the period in advance, such as by saying "We have time for two more questions" or simply "Last question."

After the last presentation, wrap up the session with a pattern similar to the one used to introduce it; for example, restate the main message of each presentation, or draw overall conclusions from the session as a whole. Provide the final pieces of practical

information, such as where to submit the filled-out evaluation sheets. End on a positive note, such as “Enjoy your lunch” or “I hope to see many of you at our awards ceremony tonight.”

10. Answer the following questions.

- How can you introduce speakers in a sincere and interesting way if you have never met them?
- How can you pronounce their names correctly if you have not asked for their preferred pronunciation?
- Can you actually prepare something when you do not know what questions you will be asked or what situations you will face?

11. Write the three-minute introduction of your best friend before her presentation at a conference. When you are ready with it, bring it down to exactly 90 seconds by writing more concisely.

12. Find English equivalents to the following Russian word combinations; find them in text and translate.

Предвосхищать категорию вопросов, убедить аудиторию, менее формальный тон, расхождения в точке зрения, конструктивно работать, строить взаимопонимание, плавное обсуждение, связанное с расхождением точек зрения, достаточно сложно, ясно, создать интересную дискуссию, инструкции модератора, внести свой вклад в обсуждение, письменные или умственные заметки, начать дискуссию, смягчить дискуссию, обобщить дискуссию, несвязанные отрепетированные ответы, начать последующие вопросы, сосредоточить внимание на обсуждении, интегрированный взгляд, подробное обсуждение, указать на конвергенции и расхождения точек зрения, общий вывод, окончательная договоренность, пройти процесс, избежать неожиданностей.

13. Retell and divide the presented information into 3 logical parts and point out the main sentence(s) of each logical part; rewrite the sentences, skipping the pointless aspects.

– Preparing for the poster.
– Participating in the discussion.
– Moderating the discussion.

Moderating a Panel discussion[24]

When preparing for a panel discussion, you can imagine the questions you will likely receive and be ready to answer them, however, gathering your thoughts on the topic isn't enough: you should research the other panellists' positions if you want to be ready for discussion.

Even if you cannot prepare an answer for every possible question, you can anticipate categories of questions and prepare a few messages you would like to get across. Panel discussions are more like conversations; they lend to a slightly less formal tone. In particular, they are a good place for supporting messages with short but relevant stories. Remember that you should work constructively to deliver an interesting experience. Try to meet the other panellists ahead of time and build rapport; even a brief chat will reduce your stage fright and help ensure a smoother discussion.

During the discussion, follow the moderator's instructions. Make explicit links to what other panellists have said whenever you add to or disagree with their contributions. Be a member of the team: strive to advance the discussion. If the moderator allows, feel free to hand over to another panellist at the end of a contribution, such as by saying:

This is our usual approach at our institution, but I would be interested to hear about Dr. Brook's experience with this issue.

I have never looked at this phenomenon myself, but perhaps Dr. Yu has?.

Moderating a panel discussion is much harder than chairing a regular conference session: all the tasks involved in being a chairperson, you also must launch, moderate, and summarize the discussion. To launch the discussion, ask the

[24] http://www.nature.com/scitable/ebooks/english-communication-for-scientists-14053993/126085065#bookContentViewAreaDivID

panellists simple questions but limit the number of prepared questions: these usually trigger unconnected rehearsed answers from the panellists. The longer you alone ask questions, the harder it is for the attendees to gather the courage to ask some.

Once the discussion process is underway, facilitate and encourage interaction: designate who will answer a particular question.

Rephrase answers, especially diffuse ones *"So, if I understand correctly, you are saying that …".*

Use these types of rephrased answers to launch follow-up questions *"In that case, then, wouldn't you agree that …?".*

If attendees are keen to ask many questions, guide them to keep the discussion focused "*Before we move to another aspect, any more questions related to …?"*.

When chairing a session, insist on meeting panellists ahead of time to make final arrangements. Still, go over the process again immediately before the session to avoid surprises. Test the equipment, especially the microphones. At the end of the session, provide the audience with an integrated view of what has been said: point out the convergences and divergences of viewpoints but remain neutral. If possible, offer an overall conclusion from the discussion.

14. Answer the following questions.

- Are you supposed to deliver a prepared statement to open the discussion, or are you only supposed to answer questions?
- Will someone introduce you, or are you supposed to introduce yourself?
- Who will be asking the questions: the audience, the moderator, or the other panel participants?
- Are some of the questions known in advance?
- Will the moderator designate who on the panel should answer a given question, or can any panel member offer a response?
- Who are the other panellists?

15. Match and translate the given definitions.

- *Chairing a session.*
- *A panel discussion.*
- *A poster presentation.*

_____ are a great opportunity to interact with other scientists in your field in a reasonably structured way: they force to crystallize the thoughts about the research and focus on its essence.

_____ creates a sense of coherence throughout the diverse presentations: brings the speakers closer by introducing them warmly, ensures that everything runs smoothly, and wraps up the session in a way that leaves everyone feeling good about it.

_____ is a useful way to trigger an exchange of viewpoints among experts, either with prepared statements or in response to questions from the audience, which they involve on-the-spot interaction, they are more difficult to prepare for than presentations. Involve divergence of viewpoints and possibly competition for speaking time, they are also more difficult to manage than the normal questions at the end of a presentation.

19. ***Translate and prepare summary to the article "Зачем ездить на конференции" in English, omitting the unnecessary details.***

Begin your summary in the following way:

- *The object (purpose) of this paper is to present (to discuss, to describe, to show, to develop, to give) ...*
- *The paper (article) discusses some problems relating to (deals with some aspects of, considers the problem of, presents the basic theory, provides information on, reviews the basic principles of) ...*
- *First (At first, At the beginning) the author points out that (notes that, describes) ...*
- *The next (following) paragraph deals with (presents, discusses, describes) ...*
- *Next (Further, Then) the author tries to (indicates that, explains that) ...*

– *Finally, (In the end) the author admits-(emphasizes) that...*
– *The paper (article) is interesting (not interesting), of importance (of little importance), valuable (invaluable), up-to-date (out-of-date), useful (useless)...*

Translate the following English word combinations, find them in text and use them in your answer: an integral part of organization, preliminary interviews, the exchange of experience and direct communication, to support participation in conferences, to look globally at the problem, to lead to the strengthening of its role, the development of academic mobility, the overwhelming majority of scientists, to understand and appreciate, the important confirmation, to share his achievements, to argue the results obtained argumentatively, a new impetus for reflection and research, scientific ties, to have some competitive advantage, the eminent co-authors, the new directions of researches, the international community of scientists, the citation of papers.

ЗАЧЕМ ЕЗДИТЬ НА МЕЖДУНАРОДНЫЕ КОНФЕРЕНЦИИ?[25]

Уже с конца XIX столетия конференции – неотъемлемая часть организации научного познания, основной целью конференций считается обмен опытом и прямое общение коллег-исследователей. Все это особенно актуально в современном мире, когда наука очень быстро растет и развивается и для успешной работы совершенно необходимо умение глобально посмотреть на проблему. Дальнейшее развитие российской науки приведет к усилению ее роли в мировой науке, и развитие академической мобильности, что должно сыграть в этом одну из главных ролей. Главное, чтобы участие в конференциях не превращалось в «академический туризм», когда собственно наука перестает быть основной целью поездки.

[25] https://okna.hse.ru/news/181449233.html

Однако подавляющее большинство ученых считают конференции необходимыми и регулярно на них ездят; причин несколько:

1. Первая заключается в поиске коллег, которые смогут понять и оценить то, чем занимается ученый. Важным подтверждением того, что та или иная проблема стоит того, чтобы тратить на ее обдумывание время и силы, является ее связь с другими работами и теориями.
2. Вторая причина важности конференций: ученому очень важно поделиться своими достижениями с людьми, которые смогут понять и восхититься или, наоборот, аргументированно раскритиковать полученные результаты.
3. Именно там вы понимаете, чем дышит и в какую сторону движется современная наука. А это новый толчок для ваших собственных размышлений и исследований, позволяющий почувствовать, какие работы представляют интерес для сообщества и, следовательно, имеют больше шансов быть опубликованными.
4. Научные связи: если оставить за скобками исследователей из ведущих университетов, у которых по определению есть некоторое конкурентное преимущество, то у среднестатистического начинающего ученого без именитых соавторов шансы опубликоваться зависят скорее от случайных факторов, чем от академического качества работы.
5. Получить комментарии, критику и вопросы: иногда комментарии и вопросы помогают улучшить текст статьи и можно обратить внимание на те аспекты проблемы, которые ранее мог упустить.
6. Ознакомиться с другими исследованиями и подумать о новых направлениях собственных исследований. На конференции у вас есть возможность познакомиться с разными исследованиями. Более того, можно подумать о том, в каком направлении вам двигаться дальше в исследованиях.
7. Включенность в международное сообщество: обсуждение вопросов и проблем, волнующих международное сообщество ученых.

8. Повышение цитируемости работ: на конференциях коллеги могут ознакомиться с вашими исследованиями, что зачастую приводит к тому, что работы становятся узнаваемыми и их начинают больше цитировать.

16. Answer the following questions.

- Do you go to the conference or focus on preparing and publishing articles?
- What is the use of academic mobility for the development of Russian science?

17. Think of all the interactions that have upset or insulted you as an audience member: for each, try to identify the reason for your frustration. Was the content too complicated? (Did you perhaps feel excluded as a nonspecialists?) Was the structure confusing? Was the tone inappropriate?

18. Make a plan and entitle each of its points; retell Aspect 2 according to your plan.

Translate the following English word combinations, find them in text and use them in your answer:

- to research collaboration and advancement of careers;
- to miss out on making professional connections;
- to talk slowly and enunciate words;
- to end the conversation abruptly;
- to express your delight;
- to formalize the connections;
- to be impressed with courtesy and professionalism;
- a professionally rewarding experience;
- the hallway conversations;
- to try to get involved in conversations.

ASPECT 2. INTERNATIONAL CONFERENCES: NETWORKING ABILITIES[26]

Some researchers make numerous professional connections that can lead to research collaboration and advancement of careers. Researchers who aren't used to day-to-day interaction in English have to deal with the language barrier in addition to their shyness: consequently, miss out on making professional connections.

Many scientists are shy people; moreover, those who seem to be very good at mingling are probably regulars at the conference, but try to look for people like you: scientists who're perhaps looking for conversation. In any case, don't end the conversation abruptly, for it can damage the connection you would have just made.

Walking up to them and starting a conversation, simply to introduce yourself. Try to talk slowly and enunciate words: *Where does the other person work? What does he or she do? Has he or she made any presentation at the conference? Then, offer relevant responses: What is it about his or her work that interests you? Have you done any similar work? Do you see any possibilities for collaboration?* There's a chance you'll not have the time to talk to anyone else: you could offer business card and ask for theirs. If you offer your business card later, that's a sign that you wish to keep in touch and you may want to move on for the time being.

After the conference ends and you return to your institution, it's a good idea to write short emails to the people you met, expressing your delight at having met them and your hope that you will stay in touch and possibly work together. All this would help in formalizing the connections you have made, and those you've met will be impressed with your courtesy and professionalism.

Attending a conference is a professionally rewarding experience, in addition to socializing with colleagues from other institutions, the two main reasons to attend a conference are to hear presentations and to converse with other researchers. Listening to presentations will inform you of what others are doing, will inspire research ideas of

[26] http://www.editage.com/insights/making-connections-at-international-conferences?utm_source=TrendMD&utm_medium=cpc&utm_campaign=Editage_Insights_TrendMD_1

your own, and will expose you to different styles of presentation. As your career advances, you'll learn that even though listening to the talks is extremely valuable, hallway conversations can be even more fruitful.

You should also tell about your research: remember to talk first about the *goals* of your research, and only then about the *techniques* you are using. You have to convince others that the work is worth hearing about before they will be willing to listen to the technical details.

If you see people you want to have a conversation, feel free to move on up to them and try to listen, however, it's worth trying to get involved in these conversations when possible. The best way to get involved is to ask a question: it flatters people and makes them respond to you.

19. Answer the question *"Why are you going to the conference?"* ***using the following word combinations and phrases from Exercise 16, 18.***

An unsettling experience, numerous professional connections, research collaboration, advancement of careers, large-scale international conferences, day-to-day interaction, to deal with the language barrier, making professional connections, outgoing and engaging, to be caught up in conversation, to be keen to talk, some essential fluency, to talk slowly, to enunciate words, to keep in touch, to end the conversation abruptly, to damage the connection, meaningful conversations, networking skills, advisor's research funding, standard mode at the conference, less intimidating, expand circle of acquaintances, the better-known researchers, mix and mingle, professionally rewarding experience, socializing with colleagues, to converse with researchers, to inspire research ideas, to expose to different styles of presentation, extremely valuable, hallway conversations, to cultivate the conversations, professionally satisfying.

VOCABULARY

Abbreviated language	Сокращенный язык
Absorb in a single oral presentation	Впитывать единую устную презентацию
Abuse of specialized terminology	Злоупотребление специальной терминологией
Academic and professional points of view	Академические и профессиональные точки зрения
Academic publications	Научные публикации
Accumulate with various data	Накопить различные данные
Accurate and concise information	Точная и краткая информация
Adapt to the audience	Адаптация к аудитории
Adequate interpretation	Адекватная интерпретация
Adopt a stable / confident position	Принять стабильную / уверенную позицию
Adopt informal tone	Принять неофициальный тон
Agricultural and farming issues	Вопросы сельского хозяйства и фермерства
Agricultural background	Сельскохозяйственные знания
Agricultural communication	Сельскохозяйственная связь
Ahead of time	Досрочно
Aim to inform	Цель сообщить
Allow selective reading	Разрешить выборочное чтение
Allowing focused or selective reading	Разрешение сфокусированного или выборочного чтения
Ambiguous	Двусмысленный
Amplify the normal pattern	Усилить нормальный шаблон
Analytical method	Аналитический метод
Annotation	Аннотирование
Anticipate categories of questions	Предвидеть категории вопросов

Anticipate divergences of viewpoint	Предвидеть расхождения точек зрения
Appearance of the demonstration	Появление демонстрации
Application program	Прикладная программа
Apply the detailed information	Применить подробную информацию
Appropriate and appreciated	Подходящий и оцененный
Appropriate and effective ways	Соответствующие и эффективные способы
Appropriate tone and structure and the exact content and format	Соответствующий тон и структура, а также точное содержание и формат
Appropriately respectful	Соответственно уважительно
Are specific to the specific case	Специфичны для конкретного случая
Array of disciplinary publications	Ряд публикаций по определенной дисциплине
Asking focused questions	Задавать целенаправленные вопросы
Assimilate the details	Ассимилировать детали
Assume too quickly	Предполагать слишком быстро
Assume certain competences	Предполагать определенные компетенции
Assumptions and results of research	Предположения и результаты исследований
Attend numerous exciting talks	Посетить многочисленные захватывающие разговоры
Attracting the attention of the audience	Привлечение внимания аудитории
Available positions	Доступные позиции
Avoid dangling / suggesting nonsense	Избегать болтаться / предлагать глупость
Avoid missing important things	Избегать недостающих важных вещей
Avoid surprises	Избегать сюрпризов
Awards ceremony	Церемония награждения

Balanced communication model	Модель сбалансированной связи
Basic logical and methodological requirements	Основные логические и методологические требования
Basic moments	Основные моменты
Be challenging to moderate	Быть сложным
Being careless	Быть небрежным
Benefit of literary source	Польза от литературного источника
Better option	Лучший вариант
Beware of overusing abbreviations	Остерегайтесь злоупотреблять аббревиатурами
Bookmark-like handouts	Рекламные проспекты
Bring in a single picture	Привести единственную картинку
Bring the meaning of the message	Привести значение сообщения
Bring the speaker closer to the audience	Подведите докладчика ближе к аудитории
Build on the answers constructively	Строить ответа конструктивно
Building a prototype	Построение прототипа
By including unnecessary details	Включая ненужные данные
By interpreting the findings	Путем интерпретации результатов
By reporting and discussing the results	Сообщая и обсуждая результаты
By reporting the experimental work	Сообщив экспериментальную работу
Capacity to manage the situation	Способность управлять ситуацией
Carefully (respectfully) convey the message	Осторожно (с уважением) передайте сообщение
Carefully consider	Внимательно рассмотреть
Carefully correcting the text	Тщательное исправление текста

Chair a presentation session	Председатель сессии
Chance to promote	Шанс содействовать
Charts, graphs, tables	Графики, таблицы, таблицы
Choose convincing arguments	Выбирать убедительные аргументы
Chronological account	Хронологическая учетная запись
Chronological order	Хронологический порядок
Clarify the contribution as a scientist	Уточнить вклад в качестве ученого
Clarify the motivation for the work	Уточнить мотивацию для работы
Clear and meaningful way	Четкий и осмысленный способ
Coding, decoding, interpretation	Кодирование, декодирование, интерпретация
Colour spectrum	Цветовой спектр
Combination of two separate parts	Сочетание двух отдельных частей
Combine in a single sentence	Объединить в одном предложении
Combine scientific rigor and efficiency	Объединить научную строгость и эффективность
Commodity groups	Товарные группы
Common errors	Общие ошибки
Communication Skills	Навыки коммуникации
Community media	Сообщество СМИ
Comparison points	Сравнительные пункты
Competence for sustainability	Компетентность в отношении устойчивости
Complete on time and on budget	Завершить вовремя и по бюджету
Complexity of the study	Сложность исследования
Compliance with parameters	Соблюдение параметров
Complicated and overly formal way	Сложный и чрезмерно формальный способ

Concentrate on the audience	Сосредоточьтесь на аудитории
Concise information	Краткая информация
Conclusions on work	Выводы по работе
Conduct negotiations and selection interviews	Проведение переговоров и отборочных интервью
Confidential proposal	Конфиденциальное предложение
Confirm the assumption	Подтвердить предположение
Consequence of the answer	Следствие ответа
Consider some points	Рассмотреть некоторые моменты
Considerable time preparing	Значительное время подготовки
Constant business communication	Постоянное деловое общение
Constitute valuable and lasting references	Составлять ценные и длительные ссылки
Construct carefully	Тщательно построить
Consultation with an expert	Консультация с экспертом
Contribute to the discussion	Внести вклад в обсуждение
Convey brief about the statues of a project	Рассказать о статусах проекта
Convey the clear information / meaning	Передать четкую информацию / значение
Convince audience	Убедить аудиторию
Convince through verbal and nonverbal delivery	Усвоить вербальную и невербальную доставку
Convince audience	Убедить аудиторию
Cope with information explosion	Справиться с информационным взрывом
Correspond to moments of transition	Соответствует моменту перехода
Create a connection between	Создать связь между
Create an interesting discussion	Создать интересную дискуссию

Create contacts for future employment	Создать контактов для будущей работы
Create the preconditions	Создать предпосылки
Creative interaction	Творческое взаимодействие
Creative potential	Творческий потенциал
Crucial elements	Важнейшие элементы
Cutting-edge research available	Самые доступны современные исследования
Cutting-edge research of the field	Передовые исследования в области
Decide in advance	Решить заранее
Deciding factor	Решающий фактор
Decision making skills	Навыки принятия решений
Define the types of communication	Определить типы связи
Deliberate insult	Преднамеренное оскорбление
Demanding forms	Формы спроса
Demonstrate the erudition in a special area	Продемонстрировать эрудицию в специальной области
Desperate attempt	Отчаянная попытка
Detailed discussion	Подробное обсуждение
Determine the strategy	Определить стратегию
Difficult to identify	Трудно определить
Direct continuation of the context	Прямое продолжение контекста
Discuss the issue outside the topic	Обсудить вопрос вне темы
Distract the reader from the basic idea	Отвлечь читателя от основной идеи
Diverse presentation	Разнообразная презентация
Draft the paper	Подготовка статьи
Draw overall conclusions	Составить общие выводы

Effective methods	Эффективные методы
Effective Software	Эффективное программное обеспечение
Elaborate on the study	Изучить исследование
Eliminate many unknowns	Устранить многие неизвестные
Emphases the uniqueness	Подчеркивать уникальность
Emphasize both the motivation of the work and the outcome	Подчеркнуть как мотивацию работы, так и результат
Encourage exchanges of viewpoints	Поощрять обмен мнениями
Encourage interaction	Поощрять взаимодействие
Engage the audience	Привлечение аудитории
Ensuing interaction	Взаимодействие
Ensure the correctness of information	Обеспечить правильность информации
Ensure the systematic pattern	Обеспечить систематический характер
Equal degree of expertise	Равная степень экспертизы
Essential element	Основной элемент
Establish contact more effectively	Более эффективно устанавливать контакт
Establish eye contact	Установить зрительный контакт
Establish importance / stronger contact	Установить важность / более сильный контакт
Establish the validity of the outcome	Установить действительности результата
Evaluate all the proposals	Оценить все предложения
Evolution of modern science	Эволюция современной науки
Excess use	Избыточное использование
Exchange business cards	Биржевые визитки
Exchange of information among scientists	Обмен информацией между учеными

Experimental observation	Экспериментальное наблюдение
Experimental procedure	Экспериментальная процедура
Explain exactly	Объяснять точно
Explicit preview	Явный предварительный просмотр
Express appreciation for the efforts	Выразить признательность за усилия
Express the desired part	Выразить желаемую часть
Expressiveness	Выразительность
Extremely brief oral presentation	Чрезвычайно краткая устная презентация
Eye-opening study	Исследование, открывающее глаза
Feel obliged to include	Почувствовать обязанность включить
Filled-out evaluation sheets	Заполненные оценочные листы
Final pieces of practical information	Заключительные части практической информации
Finish on time (within budget)	Закончить вовремя (в рамках бюджета)
Flawless formatting of slides	Безупречное форматирование слайдов
Focus appropriately	Сфокусировать внимание
Focus on the goal	Сосредоточьтесь на цели
Focus on the readers	Фокус на читателях
Follow the instructions	Следовать инструкциям
Formal opportunities to interact with scientists	Формальные возможности взаимодействия с учеными
Formal salutation	Официальное приветствие
Formulate logically and sequentially	Сформулировать логически и последовательно
Formulation of the problem	Постановка задачи
Full expression	Полное выражение
Full-fledged presentation	Полноценная презентация
Full-scale document	Полномасштабный документ

Future work on a specific project	Будущая работа над конкретным проектом
Gap between knowledge and interest	Разрыв между знаниями и интересом
Gather the courage to ask	Соберите мужество, чтобы спросить
Generalized approach for a specific situation	Обобщенный подход к конкретной ситуации
Get a chance to ask	Получите шанс спросить
Good place for supporting messages	Хорошее место для поддержки сообщений
Gradual progress to the problem	Постепенный прогресс в решении проблемы
Graphic embodiment	Графический вариант
Greater demands on the moral/ethical image	Большие требования к морально-этическому образу
Hand over	Сдавать
Handle questions more effectively	Управлять вопросами более эффективно
Have only limited time for	Иметь ограниченное время для
Have succeeded in addressing to the need stated	Удалось решить указанную
Heading of the section	Заголовок раздела
High contrasting colour arrangement	Высокая контрастная цветовая схема
High standard of quality	Высокий уровень качества
High-quality scientific papers	Высококачественные научные статьи
Higher level of abstraction	Более высокий уровень абстракции
Highlight important information	Выделить важную информацию
Identify the key point	Определите ключевой момент
Imitating presentation styles of people	Имитация стилей презентации людей

Impact factor	Фактор воздействия
Impact of social media	Влияние социальных сетей
Important information meetings	Важные информационные встречи
Important outcome	Важный результат
Important questions are unanswered	Важные вопросы остаются без ответа
Important research results	Важные результаты исследований
Improve the quality and productivity of performances	Повысить качество и производительность выступлений
In a stand-alone way	В автономном режиме
In terms of both content and context	Что касается содержания и контекста
In the form of printed materials	В виде печатных материалов
In the framework of practical	В рамках практических
In-person interaction	Взаимодействие с человеком
Inappropriate ease	Непригодность
Incline favourably toward the speakers	Наклонитесь благосклонно к спикерам
Include perspectives	Включить перспективы
Increase the visibility of research	Увеличить видимость исследований
Indicate the results	Указать результаты
Indicating elegantly and unambiguously	Указывая элегантно и недвусмысленно
Information search skills	Навыки поиска информации
Informative work	Информационная работа
Initial plan	Первоначальный план
Innovative research	Инновационные исследования
Insert an appropriate transition	Вставить соответствующий переход
Instantly becomes clear	Мгновенно становится ясно

Integral part of being a scientist	Интегральная часть быть ученым
Integrated view	Интегрированный вид
Intensify research activities	Усилить исследовательскую деятельность
Interact through questions (discussion)	Взаимодействовать с вопросами (обсуждение)
Interpretation of information	Интерпретация информации
Interpretation of research results	Интерпретация результатов исследований
Interrupt the logical flow	Прерывать логический поток
Introduction and conclusion with sections	Введение и заключение с разделами
Involve divergence of viewpoints	Вовлекать расхождение точек зрения
Involve on-the-spot interaction	Взаимодействие на месте
Irrelevant agent	Непривлекательный агент
Journal editor	Редактор журнала
Jump directly to the heart of the matter	Перейти прямо к сути дела
Juxtaposition of small ones	Сопоставление мелких
Keep the discussion focused	Держите обсуждение сосредоточенным
Key phrases	Ключевые слова
Know the details of the study	Узнать подробности исследования
Knowledge processing community	Сообщество по обработке знаний
Large amount of factual information	Большое количество фактической информации
Launch follow-up questions	Запустить последующие вопросы
Launch the discussion	Запустить дискуссию
Lead to the formal publication	Ввести официальную публикацию
Least we can do	Меньшее, что мы можем сделать
Leave a silence to think	Оставьте тишину для раздумья

Lengthy technical reports	Длительные технические отчеты
Less difficult and more interesting	Менее сложный и более интересный
Less specialized and less motivated	Менее специализированные и менее мотивированные
Level of scientific report	Уровень научного отчета
Linear model of communication	Линейная модель связи
Links to drawings or bibliography	Ссылки на рисунки или библиографию
Low level of preparation	Низкий уровень подготовки
Low-quality material delivery	Доставка высококачественных материалов
Main mechanisms	Основные механизмы
Make final arrangements	Сделать окончательные договоренности
Make memorable and high-impact presentations	Сделать незабываемые и впечатляющие презентации
Make presentation too complicated	Сделать презентацию слишком сложной
Make sense both to primary/secondary results	Имеют смысл как первичные / вторичные результаты
Make sense of results alone	Понимать только результаты
Make the link back	Сделать обратную ссылку
Make yourself recognizable to future employers	Сделать себя узнаваемым для будущих работодателей
Manage the personal contacts	Управлять личными контактами
Managing time	Управлять временем
Master the technical terms	Освоить технические условия
Maximally meaningful	Максимально значимый
Maximum number of words	Максимальное количество слов
May need to focus	Может потребоваться сосредоточиться
May serve as informal proposal	Может служить неофициальным предложением

Meaning of the message	Значение сообщения
Meaningful layout	Значимая компоновка
Mechanical aspects	Механические аспекты
Members of the international scientific community	Члены международного научного сообщества
Method of research	Метод исследования
Minor errors	Незначительные ошибки
Misunderstanding	Недоразумение
Modelling	Моделирование
Modern conditions of intensive formation and functioning	Современные условия интенсивного формирования и функционирования
More basic information	Более подробная информация
More or less knowledgeable	Более или менее хорошо осведомленный
Most up-to-date findings	Самые современные результаты
Motivation for work	Мотивация для работы
Multiple suggestions	Множество предложений
Must be highly readable	Должно быть хорошо читаемым
Necessary and worthwhile	Необходимый и полезный
Need for professional communication	Необходимость профессионального общения
Networking opportunities	Сетевые возможности
New cognitive process	Новый когнитивный процесс
Newcomers to the field	Новички в поле
No mental attention left	Умственное внимание не осталось
Novelty and relevance of research results	Новизна и актуальность результатов исследований
Observe the shift	Соблюдайте сдвиг
Obtain the document in future	Получить документ в будущем
Occur in modern science	Происходит в современной науке

Omit less important contents	Опустить менее важное содержание
Opposition between actual and desired situations	Оппозиция между реальными и желаемыми ситуациями
Ordinary writing	Обычное письмо
Organizational restructuring	Организационная реструктуризация
Organize (reveal) the logical sequence	Организовать (выявить) логическую последовательность
Organize and disseminate scientific	Организуйте и распространяйте научные
Organize into logical structure	Организовать в логическую структуру
Orient the readers	Ориентировать читателей
Original research work	Оригинальная исследовательская работа
Outline the overall statues	Описать общее положение
Overall conference / conclusion	Общая конференция / заключение
Overall length of the session	Общая продолжительность сессии
Overall structure of the content	Общая структура контента
Overstate knowledge of the topic	Завышенные знания темы
Particular affirmative proposition	Особенно положительное утверждение
Peculiarity of the implementation environment	Особенности среды реализации
People outside specific discipline	Люди, не относящиеся к определенной дисциплине
Permission	Разрешение
Perspective of further research	Перспективы дальнейших исследований
Pitch a new idea to supervisor	Представьте новую идею руководителю
Place information	Информация о месте
Poorly written (well-written)	Плохо написано (хорошо написано)
Possible extensions	Возможные расширения
Post-war conditions	Послевоенные условия

Potential audience members	Потенциальные участники аудитории
Potential job candidates	Потенциальные кандидаты на работу
Powerful technical information systems	Мощные технические информационные системы
Preliminary findings	Предварительные выводы
Preparation process	Процесс подготовки
Present the research content accurately	Четко представить исследовательский контент
Preview the presentations	Предварительный просмотр презентаций
Productive relationship	Производственные отношения
Professional activities	Профессиональная деятельность
Professional responsibility	Профессиональная ответственность
Professional skills	Профессиональные навыки
Program committee	Программный комитет
Progress report	Отчет о ходе работы
Progressively narrow down	Постепенно сузились
Promote the poster	Продвигайте плакат
Prompt discussion	Быстрое обсуждение
Provide a brief idea of the actual situation	Краткая информация о реальной ситуации
Provide a compelling motivation	Обеспечьте убедительную мотивацию
Provide feedback	Обеспечить обратную связь
Provide interested individuals with more information	Предоставьте заинтересованным лицам дополнительную информацию
Provide sufficient detail	Обеспечить достаточную детализацию
Provide the visual representations	Предоставление визуальных представлений
Provide with an opportunity to communicate with audiences	Предоставлять возможность общаться с аудиториями
Provide with the global view	Обеспечить глобальное представление

Provoke	Провоцировать
Pseudoscientific	Псевдонаучный
Public thesis defence	Публичная защита исследования (диссертации)
Quick and concise way for scientists	Быстрый и лаконичный путь для ученых
Reach the objective	Достичь цели
Read in own rhythm	Читать в собственном ритме
Reading the full version of the document	Чтение полной версии документа
Receiving insightful comments	Получение проницательных комментариев
Recent achievements	Последние достижения
Recently collected data	Недавно собранные данные
Recognized leaders	Признанные лидеры
Reduce the stage fright	Уменьшить страх сцены
Refer to public media discussion	Обратиться к обсуждению в средствах массовой информации
Reflect ideas	Отразить идеи
Reflect the progression of research projects	Отражать ход исследовательских проектов
Reflection of the scientific achievements	Отражение научных достижений
Related government agencies	Связанные правительственные учреждения
Relatively small group	Относительно небольшая группа
Relegate details to a handout	Отбросить детали в раздаточный материал
Relevant and significant	Релевантные и значимые
Remain responsible	Оставаться ответственным
Remember the context	Помнить контекст
Repeat or rephrase questions	Повторить или перефразировать вопросы

Represent much value for the understanding	Представляют большую ценность для понимания
Reproduce the experiment	Воспроизведите эксперимент
Required presentation skills	Требуемые навыки презентации
Research Article	исследовательская статья
Respect the audience	Уважать аудиторию
Respectful and professional tone	Уважительный и профессиональный тон
Responsible for the truth of the arguments	Ответственный за правдивость аргументов
Restore the intended meaning	Восстановить предполагаемое значение
Result of work	Результат работы
Result to be substantiated	Результат для обоснования
Results of observations	Результаты наблюдений
Reveal a presentation's structure	Выяснить структуру презентации
Rules of presentation design	Правила оформления презентации
Salutation	Приветствие
Satisfy the need	Удовлетворить потребность
Scanned images	Отсканированные изображения
Schematic diagram	Принципиальная схема
Scholarly communication	Научная коммуникация
Science-related programs	Научные программы
Scientific and practical tasks	Научные и практические задачи
Scientific background	Научный опыт
Scientific communication	Научное общение
Scientific community	Научное сообщество
Scientist’s research projects	Научные проекты ученых
Scope between a statement	Область действия заявления
Search for opportunities	Поиск возможностей
Secondary reader	Среднее считывающее устройство

See at a glance	На первый взгляд
Select and organize the content	Выбор и организация контента
Selective reading	Выборочное чтение
Sender and recipient	Отправитель и получатель
Sense of coherence	Смысл согласованности
Serve as encouragement for next academic presentation	Подавать в качестве поощрения для следующей академической презентации
Set rules	Установить правила
Share the research work with others	Поделиться исследовательской работой с другими
Should be autonomous	Должен быть автономным
Show respect to the audience	Показать уважение к аудитории
Shrewd comments	Проницательные комментарии
Significant changes	Значительные изменения
Significant portion of the information	Значительная часть информации
Significant progress in theoretical (empirical) research	Значительный прогресс в теоретических (эмпирических) исследованиях
Significant restrictions	Существенные ограничения
Significantly reduce the importance of	Значительно уменьшить важность
Simple slides	Простые слайды
Simpler vocabulary	Упрощенная лексика
Slightly less formal tone	Чуть менее формальный тон
Small research activities	Малая исследовательская деятельность
Small set of highly specialized readers	Небольшой набор высокоспециализированных читателей
Smoother discussion	Более плавное обсуждение
Social function of modern science	Социальная функция современной науки

Socio-psychological research	Социально-психологические исследования
Specialized in this environment	Специализироваться в этой среде
Specially trained professionals	Специально подготовленные специалисты
Specific experiment	Конкретный эксперимент
Specific purpose of the material	Конкретная цель материала
Stand-alone document	Автономный документ
State in writing	Указать в письменной форме
State the need for the work	Указать необходимость в работе
State verbally	Указать вербально
Stay in contact	Оставаться на связи
Straightforward way	Простой способ
Stress from the fear of the unknown	Стресс от страха перед неизвестным
Strive to advance the discussion	Стремиться продвигать дискуссию
Strong connection between need and task	Сильная связь между необходимостью и задачей
Structure and section of the article	Структура и раздел статьи
Structuring evidence	Структурирование доказательств
Subset of science communication	Подраздел науки
Summarize the discussion	Подводить итоги обсуждения
Summarizing experience and information	Обобщение опыта и информации
Support the statement	Поддержка заявления
Surrounding sentences	Ближайшие предложения
Systematic preference	Систематическое предпочтение
Tackling any issues	Решение любых проблем
Target audience	Целевая аудитория
Technical and semantic noises	Технические и семантические шумы
Theorem-proof fashion	Теоретически доказательство

Thorough response	Тщательный ответ
Thoughtful and respectful tone	Задумчивый и почтительный тон
Through chance encounters	Через случайные встречи
Time limit (signals)	Ограничение по времени (сигналы)
To be accepted for a poster session	Принять участие в стендовой сессии
To be addressed more rapidly and tactfully	Быть более оперативным и тактичным
To be applicable	Быть применимым
To be aware of overestimating	Помнить о переоценке
To be cited by others	Процитировать других
To be clear on the format and process	Четкость формата и процесса
To be clearer and more logical	Быть более четким и логичным
To be composed of	Составить
To be distracting and frustrating	Отвлекать и расстраивать
To be engaged in the sphere of graphic representation	Заниматься сферой графического представления
To be familiar with the context	Ознакомиться с контекстом
To be formally disseminated	Формально распространяться
To be interested in information	Заинтересоваться информацией
To be linked to the natural sciences	Быть связанным с естественными науками
To be methodically and methodologically well-organized	Быть методично и методологически хорошо организованным
To be misinterpreted	Быть неверно истолкованным
To be more or less homogeneous	Быть более или менее однородным
To be necessarily composed	Быть обязательно составленным
To be of great methodological	Иметь большое методологическое значение

significance	
To be recognizable at a glance	Быть узнаваемым с первого взгляда
To be relevant to other scientists	Иметь отношение к другим ученым
To be tempted	Быть соблазненным
To cause confusion	Вызывать путаницу
To go over the process	Передать процесс
To stop on the results of the research	Остановить результаты исследования
Tone of false cheerfulness (optimism)	Тон ложной бодрости (оптимизм)
Transfer and exchange of special knowledge	Передача и обмен специальными знаниями
Two-level structure	Двухуровневая структура
Types of professional communication	Типы профессиональной коммуникации
Unconnected rehearsed answers	Несвязанные отрепетированные ответы
Understand effortlessly and unambiguously	Понять легко и недвусмысленно
Undivided attention to the speakers	Нераздельное внимание к динамикам
Unidirectional process	Однонаправленный процесс
Universal App	Универсальное приложение
Unjustified results	Неоправданные результаты
Unwillingness to delve into the essence of the topic	Нежелание вникать в суть темы
Upcoming division	Предстоящее подразделение
Vague statement (approval)	Смутное заявление (утверждение)
Valuable research	Ценные исследования
Verbal communication channels	Вербальные каналы связи

Verify the biographical information	Проверка биографической информации
Visibility of work	Видимость работы
Visual and graphical information	Визуальная и графическая информация
Visualize the material	Визуализировать материал
Waste of time	Пустая трата времени
Well invested time	Хорошо инвестированное время
Well-defined group of people	Четкая группа людей
Well-rehearsed speeches	Хорошо подготовленная речь
Withhold bad news	Скрыть плохие новости
Without a formal opportunity	Без официальной возможности
Without accompanying interpretation	Без сопроводительной интерпретации
Work constructively	Работать конструктивно
Work towards the advancement of the various scientific disciplines	Работа по продвижению различных научных дисциплин
Wrap up the session	Завершить сессию

SUPPLEMENT

SUPPLEMENT 1. ARTICLE 1[27]. RELIGION AND PUBLIC REASON IN THE POLITICS OF BIOTECHNOLOGY

As the biosciences have generated new capacities for knowing and intervening in life, they have also come to figure progressively more centrally on the question of the right relationship between the state, with its responsibility to protect life, and the authority of democratic society to declare what forms of life are right, desirable, and good. As biotechnology comes to touch upon the deepest dimensions of human life, muddying boundaries between life and non-life, human and non-human, it has also challenged the moral and political self-understandings that undergird democratic institutions. Questions about the place of religious views in public deliberation and policymaking have been central in debates over the governance of biotechnology since the 1960s. For constitutional democracies that treat freedom of religion as fundamental to individual liberty and human dignity, the relevance of deeply held moral and religious views for democratic approaches to protecting the integrity of life in its most fundamental dimensions poses a profound challenge.

In this Article, I explore how this challenge has been approached by offering an empirical analysis of several moments of deliberative politics surrounding biotechnology. In particular, I examine discussions of the ethics of human embryo research, primarily within public bioethics bodies. I focus upon how these bodies have approached the question of what sorts of moral views can be appropriately brought to bear in processes of collective reflection and policymaking.

Public bioethics bodies are an important element in the repertoire that states have developed to address challenges of governance in the biosciences. In the US context, these bodies have been charged with the task of deliberating about morally and technically complex questions on behalf of the wider public, with the dual aim of

[27] http://scholarship.law.nd.edu/cgi/viewcontent.cgi?article=1754&context=ndjlepp

guiding wider public debate and offering advice to policymakers. As apparatuses of the state that assume responsibilities on behalf of the public, these bodies face a basic problem of representation: how the few can legitimately claim to stand in for the many. The problem is particularly acute for public bioethics bodies. Members of these bodies are appointed, not elected, and they have often been criticized as inadequately representing the plurality of moral perspectives present in the wider polity. Because these bodies are not constructed on a stakeholder model, they cannot claim to represent all relevant interests. Nor can they straightforwardly claim the mantel of expert advisors in the sense of having specialized knowledge not otherwise available to the public as, for instance, a science advisory panel to the Environmental Protection Agency would. Rather, they are made responsible for performing the forms of moral sense-making and collective judgment that are the stuff of democracy itself.

In what follows, I examine how several bodies sought to legitimate their claim to stand in for the public. I demonstrate that they drew upon two primary resources. First, rather than claiming to represent the public, they claimed to represent public reason. They claimed the competency to engage in the forms of reasoning that democracy demands, but which the politics of the public square could not deliver. Second, they drew upon scientific authority to designate the forms of disagreement and the range of reasons that are appropriately public, as opposed to the non-public reasons that belong to the domain of private (moral and religious) belief. In this analysis, I focus in particular upon two public bioethics bodies that mobilized ideas from deliberative democratic theory to define the parameters of legitimately democratic deliberation.

One of my aims is to examine how these ideas function "in the wild" when deployed as regulative concepts to discipline political discourse into public reason. I show that in constructing ideas of public reason, they relied upon the epistemic authority of science, and in particular the uncritical presumption in American political culture that knowledge stands outside of politics. I show that scientific judgments were placed in asymmetrical relation with public concerns, with the former placing constraints upon the latter. At the same time, this dynamic was occluded by an

idealized construction of democratic deliberation that at once relies upon the authority of science to be reasonable, and denies that science is inside the fold of politics. Put differently, to produce conditions of apparently "free public reasoning among equals, "scientific authority was empowered to define the limits of public reason, and thus to declare the conditions under which deliberation is free and participants equal. Behind this was an imaginary, powerful in American political culture, that there is an asymmetry between science and politics. Science is univocal whereas politics is fragmented; science's reasons are universal, whereas democracy is burdened with the fact of pluralism. Within this imaginary, science enjoys a privileged position in distinguishing between the reasonable and the unreasonable, particularly between (secular) public reasons and (religious) non-public ones. Science is seen as supplying notions of what is common, and thus what should be held to be common among those abiding by the norms of public reason.

Importantly, the controversial issue in this case, human embryo research, was a site of "ontological politics," where ontological and normative dimensions of a biological entity or phenomenon are simultaneously contested, and ethical concepts are subject to processes of ontological clarification, and vice versa (Arguably, most "ethical" problems in the biosciences fit this description.) In moments of ontological politics, distinctions between scientific and ethical questions, between what are matters of fact and what are issues of values, are therefore neither self- evident nor given in advance. Rather, when issues are clarified or disagreement is settled, these distinctions are consequences, rather than causes of these processes.

One of the foundational observations in the sociology of scientific knowledge is that facts do not settle controversy, but controversy settles facts. That is, the stabilization of epistemic claims is arrived at through social processes that are not themselves explained by reference to the veracity of the epistemic claims they produce. David Bloor's principle of symmetry elevated this insight to a rule of method: social analysis of knowledge-making should treat the production of claims that are held to be true (i.e., credible) and those that are to be false (i.e., incredible) symmetrically. With the concept of coproduction, Sheila Jasanoff has applied this principle beyond narrow

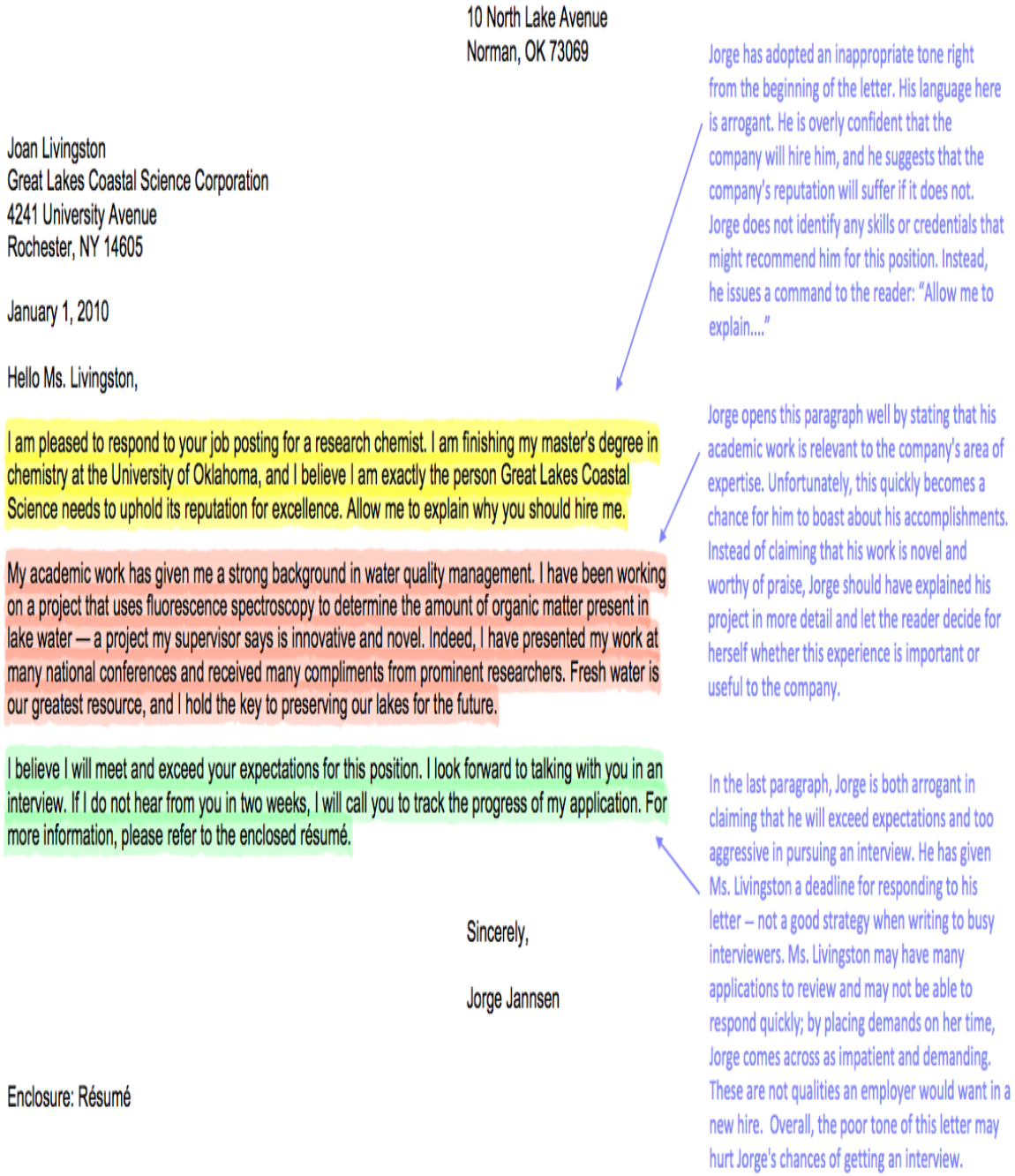
arenas of technical practice to interrogate the mutual constitution of knowledge and norms – of epistemic and normative configurations of rightness – at the nexus of science and politics here I am building upon this scholarship to analyse the coproduction of constructions of science and democracy as the respective institutional custodians of facts and values, and in particular, the ways science is drawn upon to construct a public/private distinction by marking particular kinds of reasons as religious.

The demarcations between facts and values, scientific claims and moral judgments, premises held in common and personal (religious) beliefs are not given in advance. Notions of the secular and the religious are deployed to construct the boundaries of acceptable public reason. I show that notions of knowledge, and thus of scientific authority, are coproduced with ideas of public reason. Science is used to mark reasons as falling into the category of "the religious," and thus out of the category of acceptable public reasons. I trace three primary moves whereby bioethics bodies have deployed science to define ethical problems and delineate the scope of public reasoning: first, by intervening in moments of ontological politics by making ontological declarations that delimit the scope of ethical deliberation; second, by serving as exemplar of the kind of reasoning appropriate to public deliberation; and third, by defining the limits of reasonable moral concern by declaring the (im)plausibility of possible futures.

In the first section of the article, I briefly discuss the dimensions of deliberative democratic theory that are relevant to my analysis. In the second section, I explain my rationale for taking bioethics as a locus of empirical study. In the third section, I contextualize the cases by offering a brief history of the debates surrounding human embryo research, including a brief discussion of one bioethics body. In the fourth and fifth sections, I discuss the two cases that are the main focus of my analysis. The final section concludes the article.

SUPPLEMENT 2. COVER LETTERS: ANALYSIS

The first cover letter[28] demonstrates how *poor tone can give an employer a bad impression*. Note in particular the boastful tone that the writer uses and the demands he makes of the reader at the end of the letter.



10 North Lake Avenue
Norman, OK 73069

Joan Livingston
Great Lakes Coastal Science Corporation
4241 University Avenue
Rochester, NY 14605

January 1, 2010

Hello Ms. Livingston,

I am pleased to respond to your job posting for a research chemist. I am finishing my master's degree in chemistry at the University of Oklahoma, and I believe I am exactly the person Great Lakes Coastal Science needs to uphold its reputation for excellence. Allow me to explain why you should hire me.

My academic work has given me a strong background in water quality management. I have been working on a project that uses fluorescence spectroscopy to determine the amount of organic matter present in lake water — a project my supervisor says is innovative and novel. Indeed, I have presented my work at many national conferences and received many compliments from prominent researchers. Fresh water is our greatest resource, and I hold the key to preserving our lakes for the future.

I believe I will meet and exceed your expectations for this position. I look forward to talking with you in an interview. If I do not hear from you in two weeks, I will call you to track the progress of my application. For more information, please refer to the enclosed résumé.

Sincerely,

Jorge Jannsen

Enclosure: Résumé

Jorge has adopted an inappropriate tone right from the beginning of the letter. His language here is arrogant. He is overly confident that the company will hire him, and he suggests that the company's reputation will suffer if it does not. Jorge does not identify any skills or credentials that might recommend him for this position. Instead, he issues a command to the reader: "Allow me to explain...."

Jorge opens this paragraph well by stating that his academic work is relevant to the company's area of expertise. Unfortunately, this quickly becomes a chance for him to boast about his accomplishments. Instead of claiming that his work is novel and worthy of praise, Jorge should have explained his project in more detail and let the reader decide for herself whether this experience is important or useful to the company.

In the last paragraph, Jorge is both arrogant in claiming that he will exceed expectations and too aggressive in pursuing an interview. He has given Ms. Livingston a deadline for responding to his letter – not a good strategy when writing to busy interviewers. Ms. Livingston may have many applications to review and may not be able to respond quickly; by placing demands on her time, Jorge comes across as impatient and demanding. These are not qualities an employer would want in a new hire. Overall, the poor tone of this letter may hurt Jorge's chances of getting an interview.

[28] http://www.nature.com/scitable/resource?action=showFullImageForTopic&imgSrc=content/ne0000/ne0000/ne0000/ne0000/14046852/Frame_14_Exhibit_1a.pdf&isPDF=yes

In *the second cover letter*[29] applies for the same position. This example provides rich details that are well tailored to the needs of the position, and it conveys this information using a respectful, confident tone. This letter is a strong model of an appropriate cover letter.

1402 Smith Street #3
Rochester, NY 14606

Joan Livingston
Great Lakes Coastal Science Corporation
4241 University Avenue
Rochester, NY 14605

January 1, 2010

Dear Ms. Livingston,

I would like to apply for the research chemist position currently available with Great Lakes Coastal Science Corporation, as advertised on your website. I will receive my master's degree in chemistry from the University of Rochester in May, and I believe my background in marine biochemistry, along with my experience designing experiments and supervising laboratory employees, will prove valuable to your company's ongoing research on water quality.

In her opening, Wei clearly identifies the position in which she is interested and explains how she learned of the job opportunity. She also notes what qualifications she has that are relevant to the position and shows that she knows something about the company's projects.

For my master's thesis, I am using chromatography to monitor algae blooms in inland lakes — a project that may ultimately help us predict when and where these blooms might occur. My work uses high-performance liquid chromatography (HPLC) to assess the presence of certain pigments in lake water; because these pigments are associated with certain organisms, tracking pigment levels can help create an ecological profile of a certain sample. Though I have not yet finalized my model, my method shows promise for identifying increases in microbial populations before they reach toxic levels. My current research, therefore, has given me a solid background in marine biochemistry that I could apply directly to Great Lakes' ongoing efforts to monitor and restore the water quality in Lake Ontario's bays and inlets.

Wei's description of her research demonstrates her knowledge of marine biochemistry, thus providing Ms. Livingston with more detail about her skills and how they relate to the position she is seeking. Note that Wei expresses her confidence without boasting. At the end of the paragraph, she explains what she learned from her research and how this information is relevant to the position she is applying for.

In addition to providing me with a strong background in assessing water quality, my research has also given me valuable experience in lab supervision and project management. At present, I oversee three undergraduate students who are working on smaller, individual projects related to my research. My responsibilities include training them in sampling methods and laboratory practice, setting project deadlines and goals, and discussing results and troubleshooting experiments at weekly meetings. My duties as a lab supervisor have impressed upon me the importance of working effectively as a team — experience that would be valuable in a collaborative, interdisciplinary setting such as Great Lakes.

In conclusion, I believe that my research in marine biochemistry, my experience designing experiments, and my past responsibilities as a laboratory supervisor will lend themselves well to your company's efforts to maintain the water quality of Lake Ontario. I have included my résumé along with this cover letter. If I can provide any additional information in support of my application, please let me know. Thank you for your time and consideration.

In this paragraph, Wei reminds Ms. Livingston about her qualifications. She closes her letter respectfully and invites Ms. Livingston to contact her if she needs additional information. This is a letter that will likely attract Ms. Livingston's attention.

Sincerely,

Wei Li

[29] http://www.nature.com/scitable/resource?action=showFullImageForTopic&imgSrc=content/ne0000/ne0000/ne0000/ne0000/14046965/Frame_14_Exhibit_2a.pdf&isPDF=yes

SUPPLEMENT 3. A STANDARD RÉSUMÉ

Wei Li
1402 Smith Street #3
Rochester, NY 14606
(585) 243-1258
weili@rochester.edu

Objective
To apply my training in chemistry to maintain and improve water quality in the Great Lakes system.

Education
University of Rochester, Department of Chemistry — *Rochester, NY*
Master of Science — *Expected Graduation: May 2010*

Nanjing University, School of Chemistry and Chemical Engineering — *Nanjing, China*
Bachelor of Science — *May 2007*

Research Experience
Graduate Assistant, Applegate Lab, Department of Chemistry — *Rochester, NY*
University of Rochester — *August 2007–Present*

- Conduct research on algal blooms in inland lakes using high-performance liquid chromatography
- Develop preliminary model for predicting the growth of algal blooms
- Supervise and mentor three undergraduate researchers

Work Experience
Senior Teaching Assistant, Chemistry 203 and 204 (Organic Chemistry I and II) — *Rochester, NY*
University of Rochester — *August 2009–Present*

- Supervise and mentor three first-year teaching assistants
- Coordinate laboratory sections for a large lecture course
- Grade student exams and laboratory assignments

Teaching Assistant, Chemistry 203 and 204 (Organic Chemistry I and II) — *Rochester, NY*
University of Rochester — *August 2007–May 2009*

- Taught three laboratory sections for a large lecture course
- Held office hours and study sessions
- Graded student exams and laboratory assignments

Nanjing Science and Technology Museum — *Nanjing, China*
Research Intern — *June 2006–August 2008*

- Assisted in preparing exhibits on oceanography
- Created and conducted science activities for young students and visitors

Relevant Skills
Experience with sampling methods for aquatic environments; data analysis using SPSS and Microsoft Excel; fluency in Mandarin Chinese; conversational knowledge of German

Awards and Honors
Award for Excellence in Teaching by a Graduate Student, University of Rochester, May 2010
State Natural Science Award Third Class, Nanjing University, May 2007

Activities
Conversational Chinese Tutor — *Rochester, NY*
University of Rochester — *January 2008-Present*

- Hold individual sessions with students to improve their Chinese language skills
- Teach students about Chinese culture and customs

References available upon request

Personal data:
List your your name, address, phone number, and e-mail address. Be sure to use a professional e-mail address, such as that provided by your university or one that is based on your name.

Career objective:
Write a brief a thesis statement delineating your professional interests or goals.

Education:
List colleges and universities attended, dates, degrees, and majors. Sometimes this section may also include a list of courses that are relevant to the job requirements and your GPA or overall class standing.

Research experience:
If applicable, briefly describe any research projects you have worked on that are related to the job you are applying for.

Work experience:
Summarize any positions you have held that are relevant to the job you are applying for or that have given you valuable skills. Include the job title, employer name and address, dates of employment, and a description of your duties.

Relevant skills:
Provide information on your experience with certain kinds of instruments, analytical methods, or computer programs.

Awards, honors, publications, and grants:
List outside honors that show your accomplishments or your leadership abilities. Choose those that are most relevant to the job for which you are applying

Activities:
List any organizations that show your interest in your field or your leadership abilities. Keep them to a reasonable number. Do not appear so busy with leisure activities that you seem to spend little time on your actual work.

References:
Give names, affiliations, and contact information for people who can speak in favor of your application. If your résumé is fairly long, consider using "References available upon request" instead. Remember to provide a copy of your résumé to the people you have chosen as your references, and let these individuals know they might be contacted.

Marie's opening

Attention getter
Starts from something the audience is familiar with

I'm sure in your own field of research you have already noticed that things seem to go *nano*. We've seen a lot about nanomaterials in the presentations this morning, but I'm sure you've also heard about nanomedicine, nanorobotics, nanomechanics… even Apple has an iPod called *nano*.

Need
Focuses progressively on the exact problem

My field of research is photonics, and this is everything that has anything to do with light. And the *nano* in *nanophotonics* indicates that we are working with light on a very small scale: we make very, very small photonics chips. We can imagine the structures on this chip are still larger than nanometers in size. So why do we call it *nano*photonics? Well, they have to be fabricated with nanometer precision. In my research group, we have an amazing fabrication tool: it has a very high resolution, but only over a very small area.

Task
Main message

What we decided to do was to make an alignment procedure that allows us to use this resolution over the entire photonic chip.

Preview
Shows the logic of the structure

Before I can talk about this alignment procedure,

1. I'd like to introduce nanophotonics to you and
2. I'll talk about the focused ion beam, which is the amazing fabrication tool that I just mentioned.
3. And then, in the third part I will explain to you how we developed the alignment procedure.

Finally, I'll be able to show you in conclusion the waveguides that we made by focused ion beam stitching.

(Transition to body)

So first, let's talk about nanophotonics.

Jean-luc's opening

Attention getter
Focuses on the audience

You are scientists. The most tangible output of your work is papers and presentations.

Need
Is audience-oriented like the attention-getter

To produce these papers, to produce the slides you use in your presentations, you need an appropriate software tool. One such tool is TEX. Surprisingly, few scientists have actually heard about TEX or about the variation on it called LATEX. And even fewer of those are actually using it. Yet, if you call yourself a scientist, you need to know what TEX is and what it can do for you.

Task
Shifts the focus to the speaker

Myself, I have been using TEX for over 20 years now: I discovered it as a PhD student at Stanford and I've been using it ever since. Let me tell you.

Main message

TEX is powerful. TEX is flexible. TEX is reliable.

Preview
Includes the audience with a collective *we*

To see that,

1. let's make sure that we first of all understand what TEX is.
2. That will help us understand the psychological barriers against using it.
3. But if we can get past those barriers, then we can reap the many benefits of TEX.

(Transition to body)

But first, what is TEX?

John's opening

Attention getter
Consists of a photograph depicting the syndrome

In 1966, two Belgian clinicians published a novel syndrome, which we call now hypotonia-cystinuria syndrome. It is characterized by severe neonatal hypotonia — you can see that on this picture, which was included in their case report — but on top of that all the patients developed kidney stones within the first decade of their life, mostly even multiple kidney stones, and they also displayed growth retardation.

Implicit need
Namely, to identify the genetic cause of it

Task
What we did

Over the years, we have, in our hospital, collected a number of additional patients and, ...

Main message
What we achieved

... a few years ago, we have been able to identify the genetic cause of this syndrome.

Preview
Announces the structure and justifies the content

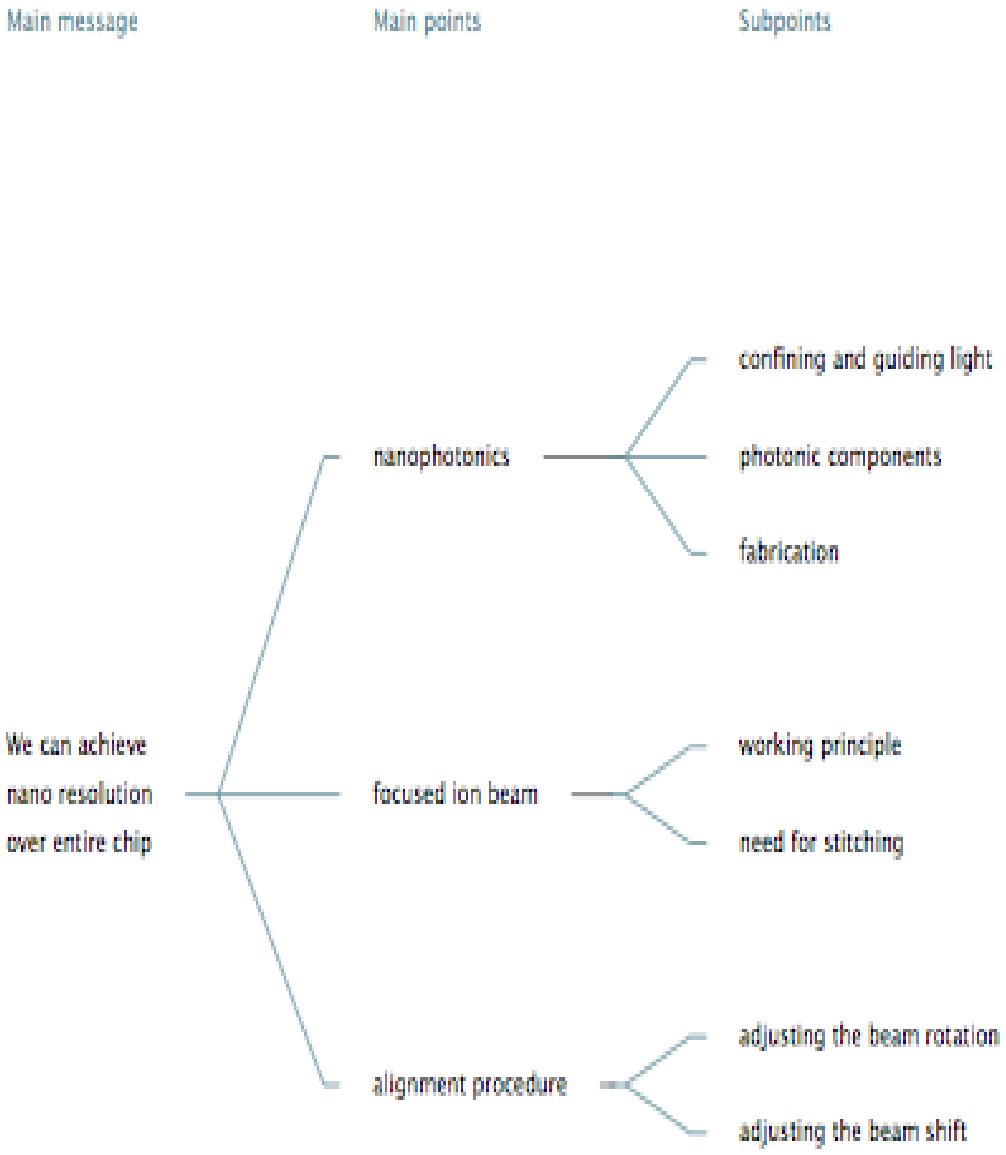
What I will show you in the next 15 minutes is

1. how we came to identify the genetic cause of this disease and,
2. since one of the genes affected in this syndrome is a novel protein called PREPL (prolyl endopeptidase-like), I will also show you the preliminary data that we have gathered in the characterization of this protein.

(Transition to body)

But let me start by giving you a bit more information about the syndrome itself.

Marie's outline



Marie's closing

(Wrap-up of last main point)

We solved the first problem by adjusting the beam rotation and we solved the second problem by adjusting the beam shift and this in total is our alignment procedure which allows us to make the structures as large as we want. So…

Review
Recaps the body's three main points

1. I've told you something about nanophotonics: the light is guided in the material with the highest refractive index.
2. And we can make nanophotonic structures with a focused ion beam, because it has a very high resolution.
3. Now, thanks to our alignment procedure, we can make these structures as large as we want, by stitching more parts together.

Conclusion
As a wrap-up, illustrates the achievements visually

So now let me show you some waveguides that we made by focused ion beam stitching. Here you see an example of a waveguide that was stitched together with parts 80 µm long, and in this cross-section you can see that the light will be guided down the middle. Around the markers you see that there is a slightly darker area: this is where the image was taken and damage was induced to our material; that's what we want to avoid in the places where we have light. Here you see that the structures are really unlimited in size, except of course by the size of the sample itself.

Close
Links to the attention getter (concept of *nano*photonics)

So I have shown you we can do *nano*photonics with a focused ion beam thanks to its high resolution. And thanks to our alignment procedure, we can do it *as large as we want.*

Jean-luc's closing

(Transition from body)

So what to remember?

Review
Recaps the body's three main points

1. TEX is a markup programming language,
2. and that may very well scare you away,
   but if you get through the unavoidable learning curve,
3. then you get power, flexibility, reliability.

Conclusion
Place the body's discussion into a broader perspective

And you want to know one more thing? TEX is free.
That's exactly why so many of you have never heard of it:
there is nobody out there to promote it commercially.
But it means that, right after this presentation, you can
all go back to your offices, download it, and install it.

Close
Links to the attention getter

If you call yourself a scientist, try it —
chances are, you too will love it.

John's closing

(Transition from body)

So that brings me to the conclusions.

Review/Conclusion
Concludes each point, implicitly recapping it

We have found a novel syndrome and we have been able to identify the genes causing this. And since SLC3A1 causes isolated cystinuria type 1, we can conclude that PREPL is responsible for the hypotonia and the growth retardation.

We also have shown that PREPL is an active serine hydrolase, but unfortunately we have not been able to find the physiological substrate of PREPL and hence we are not yet able at this stage to go back to the patient and try and explain why they have this syndrome as we observe it.

Close
Encourages feedback from the audience

And with that I am afraid I have to leave you with more questions than answers, but if you have any of the answers that I've been asking, please let me know.

SUPPLEMENT 5. ACADEMIC PRESENTATION: GROUND RULES[30]

1. Simple though convincing.

a. *Clarify "the aim of your study" and "what you did"* to make your presentation easier to understand.

b. *Include just the main points in your slides*, which are easy to follow.

c. *Rehearse sufficiently (especially, if you have little experience)* in order to present your research contents accurately within a limited time.

d. *Do not read from your manuscript,* which provide you with an opportunity to communicate with audiences. You should speak slowly and clearly.

e. *Be precise with your laser pointer:* use the laser pointer precisely when it's necessary, and turn it off when it is not in use.

f. *Avoid abbreviations* or inform that you will use abbreviations during your speech.

2. Simple and effective slides (slides with text).

a. *Keep to the important points:* each slide should contain the main points.

b. *Contrast text and background:* use high contrasting colours for the background and text.

c. *Use colour for emphasis only:* the colour scheme should be kept simple.

3. Simple and effective slides (slides with figures).

a. *One figure per slide:* you should put one figure in one slide.

b. *Describe the meaning of vertical and horizontal axis*.

c. *Make each figure clear:* easy to process the data.

d. *Use arrows to indicate legends:* you should place arrows with simple descriptions to show what each line means.

e. *Be careful about the colour of graphs:* in graphs that contain many curved lines, it is effective to make a distinction between lines, such as solid or dotted lines.

[30] http://www.jsrt.or.jp/data/english/news/4501/

f. *Avoid complex tables:* better to divide it into multiple simple slides. You should consider which data is more essential.

4. Make good use of the time.

a. *No need to say your name or what department you are in.*

b. *No need to give detailed information of contents with low significance*.

c. *Spend a moderate amount of time revising your draft for the proceedings.*

4. Closing remark

There are so many things to consider, however the easiest way is through a lot of practice. The ultimate goal of academic presentations is to have as much of the audience as possible understood your research. Positive reactions from the audience give speakers great satisfaction and serve as encouragement for their next academic presentation. So, please be the first one clapping.

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