Handout Leсture 1 Academic Writing

*To write or nor to write: there is no such a question in science!*

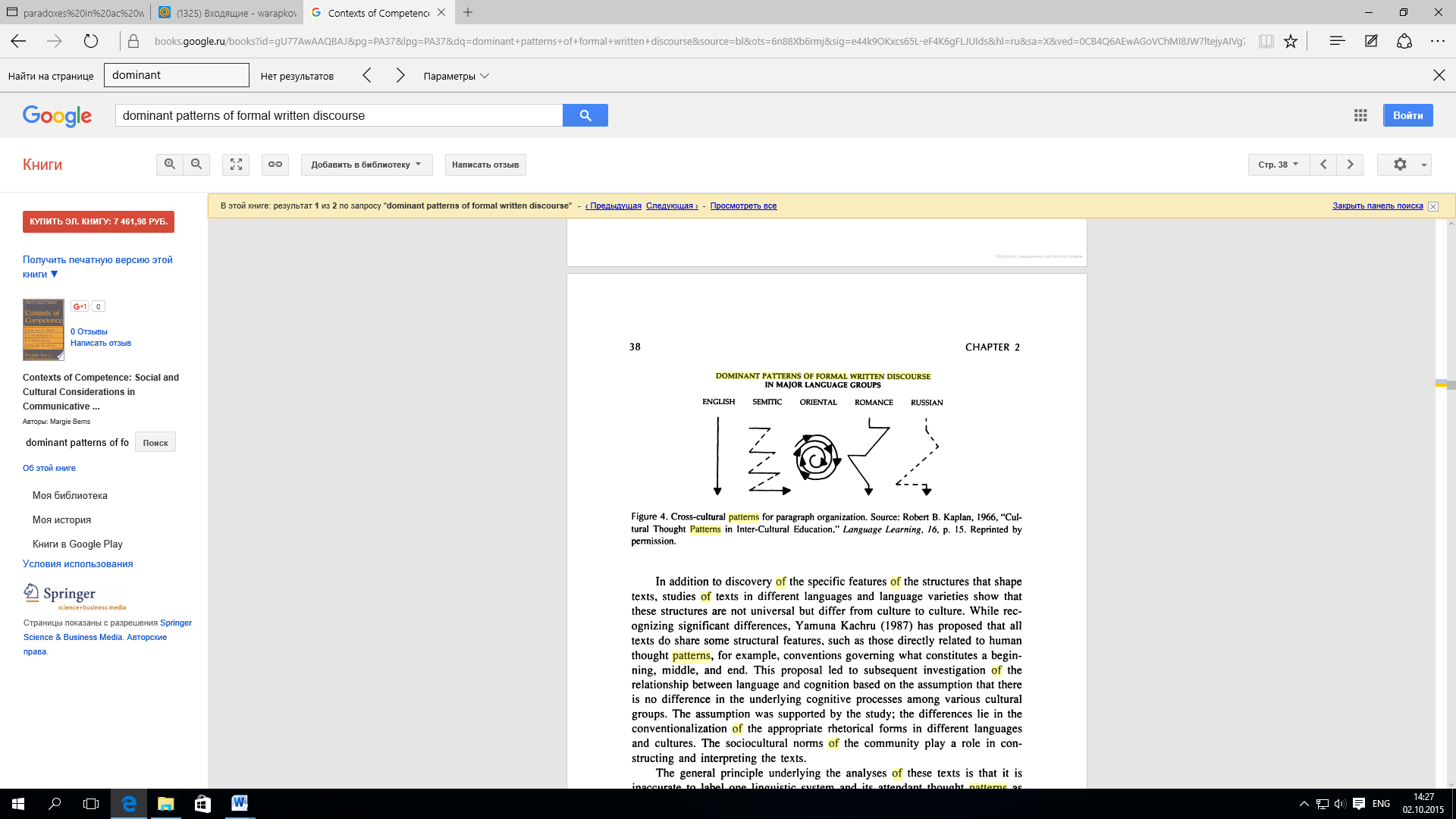
*Convince yourself that you are working in clay, not in marble, on paper not eternal bronze: let that first sentence be as stupid as it writes. ( J. Barzun)*

*Anyone who wishes to become a good writer should endeavour, before he allows himself to be tempted by the more showy qualities, to be direct, simple, brief, vigorous, and lucid. (Fowler & Fowler, 1906, p. 11)*

1. ***All problems could be divided into classes.***

* ***Those connected with general logic of writing a paper in English as compared to the Russia academic discourse.***
* ***Those connected with syntax***
* ***Those connected with grammar***
* ***Those biased with lexis, collocations and word combinations***

1. ***Look at the picture and comment upon it/ Do you agree with such graphic representation of information?***



***Syntax***

1. ***Long sentences/ cleft sentences/ not a sentence/ Russian-like syntax/ monotonous style/ jerky rhythm/ lack of coordinating phrases/***

* **Is the following paragraph difficult to read? Explain why.**

*We put subjects and verbs together to lessen the reader’s syntactic burdens; we put the material we believed worthy of emphasis in stress position; and we discarded material for which we could not discern significant connections. In doing so, we have produced a clearer passage – but not one that necessarily reflects the author’s intentions; it reflects only our interpretation of the author’s intentions. The more problematic the structure, the less likely it becomes that a grand majority of readers will perceive the discourse in exactly the way the author intended*.

* **It this sentence a good example of academic writing? Is it easy to understand?**

It is a well-known commonality that written communications of all sorts have a propensity to descend quite deeply into a kind of approach imposed very often unwittingly by the author that absolutely ensures the fact that the desired message is not, for the most part, uncomplicated, a stylistic habit that, unless regarded with utmost concern and consideration – an attentiveness boasted by merely a few writers – can turn into an abstraction to fulsome understanding. (Koerber, 2015)

**-Why are these sentences so complicated for understanding?**

*Specific signs of diencephalic structure dysfunction to have been in the most cases appeared in the form of non-spindled, pointed alpha rhythm with the frequency similar to theta rhythm and in the form of wrong distribution of alpha activity were detected in the free divers’ electroencephalogram.*

*PD is a common neurodegenerative disorder affecting middle aged and elderly people that are characterized by the death of dopaminergic neurons in the substantia nigra pars compacta and the resulting functional changes that involve all components of the fronto-thalamo-striatal circuit. PD manifests through motor impairments including disorders in eye movements (Schneyder and Kovelowski, 1990; Shul’govskiy et al., 1994; Kori et al., 1995; Baziyan et al., 1998; Slovin et al., 1999). The study of eye movements plays one of the most important roles aimed at investigation of the function and dysfunction of the human brain.*

Charge separation in the reaction center (RC) of photosystem II (PSII) occurs via picosecond formation of the radical pair P680+PheoD1**-**, where P680 is a dimer of two chlorophyll *a* (Chl) molecules, and PheoD1 is the pheophytin acceptor molecule located at the photochemically active cofactor branch bound to the D1 polypeptide (see for a review Ref. [1]).

**III. Dividing up long sentences: ( From “ English for Academic research”)**

*Divide up these sentences into more manageable and shorter sentences*

*that will help the reader understand the content better. You may need to*

*rearrange the word order and / or delete unnecessary words.*

**Example**

*ORIGINAL The seeds, sterilised for 3 min. in NaOCl (1% available chlorine)*

*and rinsed with distilled water, were germinated on moist fi lter paper*

*(Whatman No. 2) in Petri dishes and grown in the dark at 23 °C till*

*72 hours.*

*REVISED The seeds were sterilised for 3 min. in NaOCl (1% available*

*chlorine), and rinsed with distilled water. They were then germinated on*

*moist fi lter paper (Whatman No. 2) in Petri dishes and grown in the dark*

*at 23 °C.*

1. Using automatic translation software (e.g. Google Translate, Babel fish,

and Systran) can considerably ease the work of researchers when they

need to translate documents thus saving them money (for example the

fee they might have otherwise had to pay to a professional translator)

and increasing the amount of time they have to spend in the laboratory

rather than at the computer.

2. In order to establish a relationship between document length and level

of bureaucracy in European countries and to con fi rm whether

documents, such as reports regarding legislative and administrative

issues, vary substantially in length from one language to another, we

conducted an analysis of A, B and C.

3. The aim of our study was to assess changes in the level of tolerance of

natives of one country towards immigrants over the course of a 50-year

period in order to be able to advise governmental agencies on how to

develop strategies based on those countries that have been more

successful in reducing racism as already investigated in previous studies,

but not in such a systematic way, and to establish correlations with data

from the USA, which until now have been reported only sporadically.

4. Monolithic sorbent tip technology has proved to be ef fi cient in removing

interferences from copper and mercury salts, but it has not been tested

for other materials and the recovery of proteinaceous material is often

too small, giving rise to analysis problems.

5. Our results show that the performance of the system, in terms of

throughput and delay, depends on several factors including the frame

duration, the mechanisms for requesting uplink bandwidth, and the load

partitioning, i.e. the way traf fi c is distributed, connections, and traf fi c

sources within each connection.

***Short sentences***

* It is important to know how to use the whole variety of sentence types due to ( it makes your writes natural, not monotonous, easy to read and comprehend)

*Following the dose of 1.0 mg/kg the pre-saccadic intervals increased by 30-50 %%. The uneven change in the latencies depending on the range of the target-oriented saccade was demonstrated. Latencies of saccades of low amplitude increased by 20-44 %% as compared to the normal rates at the presymptomatic state of syndrome development. Latencies of saccades of average amplitude increased at a lesser extent – by 5-17 %% in this condition. Latencies of saccades of greater amplitude almost did not change as compared to the norm even in case of a more conspicuous demonstration of the MPTP syndrome (Fig. 3).*

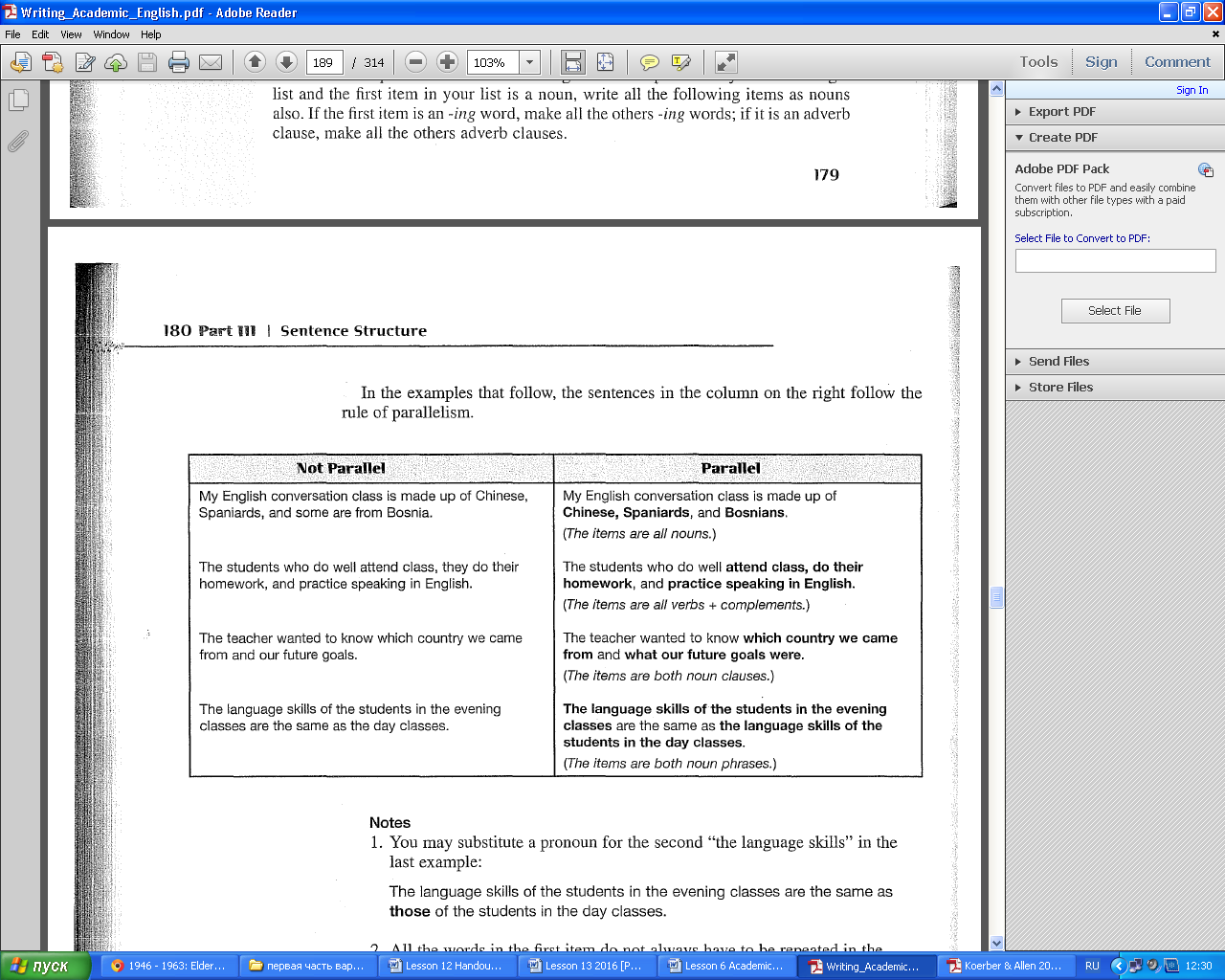
*+ Reason may convince, but it is rhythm that persuades*

*C. H. Sisson*

**You gain several advantages in using parallel structures:**

■ You can express ideas of equal weight in your writing.

■ You can emphasize important information or ideas.

■ You can add rhythm and grace to your writing style

1. The first group possesses light sides (brown, gray or pink) with large bright spots. Edges of the spots are diffuse and irregular. Caudal fin is deep forked. Head is conical. The second group is characterized by dark coloration with purple or olive tide on the sides. Spots are smaller and more frequent with distinct edges. Caudal fin is slightly clipped. Head is elongated. It was easy to determine the specimens in 95% of the cases.

***\_***

***A structure of a paragraph***

Examples:

\_\_\_\_\_\_\_\_ a. The 11istory of astronomy is interesting.

\_\_\_\_\_\_\_\_ b. Ice age people recorded the appearance of new moons

by making scratches in animal bones.

\_\_\_\_\_\_\_\_ c. For example, Stonehenge in Britain, built 3500 years

ago to track the movement of the sun.

\_\_\_\_\_\_\_\_ d. Ancient people observed and recorded lunar and solar

events in different ways.

1. ***Read the following paragraph. Choose the right topic sentence for it.***
2. Evolutionary biology today tries to explain a natural world that appears remarkably different from the nature of the past century.
3. Evolutionary biology is a new and developing field of studies.
4. The notion of the “evolutionary biology” is crucial to studies of genetics, immunology, evolution, development, anatomy, and physiology.

* ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***
* ***. It is a dynamic world, where sym­biosis and phenotypic plasticity are the rules, not the exceptions. High-throughput sequencing has uncov­ered a world of complex interactions between developing organisms and the biotic and abiotic components of their environments. This newfound awareness of the depend­ency of phenotypes on other species and environmen­tal conditions presents additional layers of complexity for evolutionary theory and raises many questions that are being addressed by new research programmes. The field of ecological evolutionary developmental biology (Eco- Evo-Devo) attempts to study and model this new view of nature by organizing concepts such as developmental symbiosis and developmental plasticity into evolutionary theory.***

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| 1. The connectivity pattern of the intraviral and viral-human network revealed **three important principles.** 2. Another highly enriched subnetwork involved components of the WNT signaling pathway. 3. Influenza-host interactions have evolved over countless infections across diverse host species. To capture this complex relationship, we have constructed **a first comprehensive map** representing the physical and regulatory interactions between influenza virus and its primary human host cell. 4. Current microbiome studies tend to take either top-down or bottom-up perspectives. 5. In bacteria, current evidence suggests that small DPCs (less than 11 kDa) are repaired via nucleotide excision repair (NER), whereas larger DPCs are repaired by homologous recombination (HR) (Ide et al., 2011; Nakano et al., 2007). 6. Our data suggest that replication of the adducted strand is delayed compared to the unadducted strand (Figure 1D). 7. Though Cas9 has been broadly applied in a variety of cellline- and embryo-based experiments, in vivo applications of Cas9 in somatic tissue remain challenging, owing to a combination of factors such as its large transgene size 8. This reorientation is not new for the microbial or botanical sciences. In the world of protists, hereditary symbiosis, the inheritance of acquired symbionts is legion. 9. There are many ways in which the term “individual” is used in biology. Individuals can be defined anatomically, embryologically, hysiologically, immunologically, genetically, or evolutionarily. | 1. **These** may be required for the formation of viral-host multiprotein complexes. 2. Connecting top-down and bottom-up strategies to determine specific mechanism, as well as patterns of association, is thus a key goal for the field moving forward. 3. In summary, there is currently no clear consensus on how DPCs are repaired, especially in vertebrate. 4. **These extensive experimental and computational analyses** allowed us to assign to each candidate gene a physical, transcriptional, and phenotypic ‘‘fingerprint’’ that reflects its specialized role in the host-pathogen network 5. The mechanism of action is yet to be defined. 6. In conclusion, the undamaged strand is replicated well before the DPC-containing strand. 7. As such, all classical conceptions of individuality are called into question by evidence of all-pervading symbiosis. 8. Given these challenges, there is an urgent need for a more versatile system to enable efficient Cas9-mediated genome editing for in vivo applications. 9. The discovery of symbiosis throughout the animal kingdom is fundamentally transforming the classical conception of an insular individuality into one in which interactive relationships among species blurs the boundaries of the organism and obscures the notion of essential identity. |

**Analyze the following paragraph in terms of unity, coherence and language.**

Photosynthesis is among the **most impressive phenomena** on Earth. **It is the heart** of the Earth’s energy cycle of organized matter. **It has provided abundant inspiration for major scientific inquiry** into **clean and inexhaustible** solar energy [1, 2], water splitting [3, 4], carbon dioxide and nitrogen fixation [5, 6], and most importantly, the almost 100%- efficient photoelectric conversion systems involved in the primary process of photosynthesis [7, 8]. However, the artificial induction of functional biosystems has been quite rare [9].

**A concluding sentence serves two purposes:**

1. It signals the end of the paragraph.

2. It leaves the reader with the most important ideas to remember. It can do

this in two ways:

• By summmizing the main points of the paragraph

OR

• By repeating the topic sentence in different words

**Writing Academic English -** Writing Technique Questions

1. In which paragraph does the concluding sentence summarize the main points of the paragraph, which are not specifically stated in the topic sentence?

2. In which paragraph does the concluding sentence paraphrase (repeat in different words) the topic sentence?

3. Circle the conclusion signals in each paragraph.

*Note: Never* introduce a new idea in the concluding sentence.

In conclusion, we now have more variety of greeting cards to choose from, but they are also becoming very expensive. *(This is* a *new* idea~)

In conclusion, there are many other legends like this one in Hawaii. *(This is* a *new idea.)*

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| **В заключении следует сказать несколько слов о …**  **Все это позволяет прийти к выводу..**  **Нам не следует делать поспешные выводы**  **Это предварительные выводы**  **На основе этого сравнения делается вывод о…**  **Таким образом, следует заключить, что…**  **Мы заключим наше рассмотрение кратким обсуждением…** |  |

***Writing introductions***

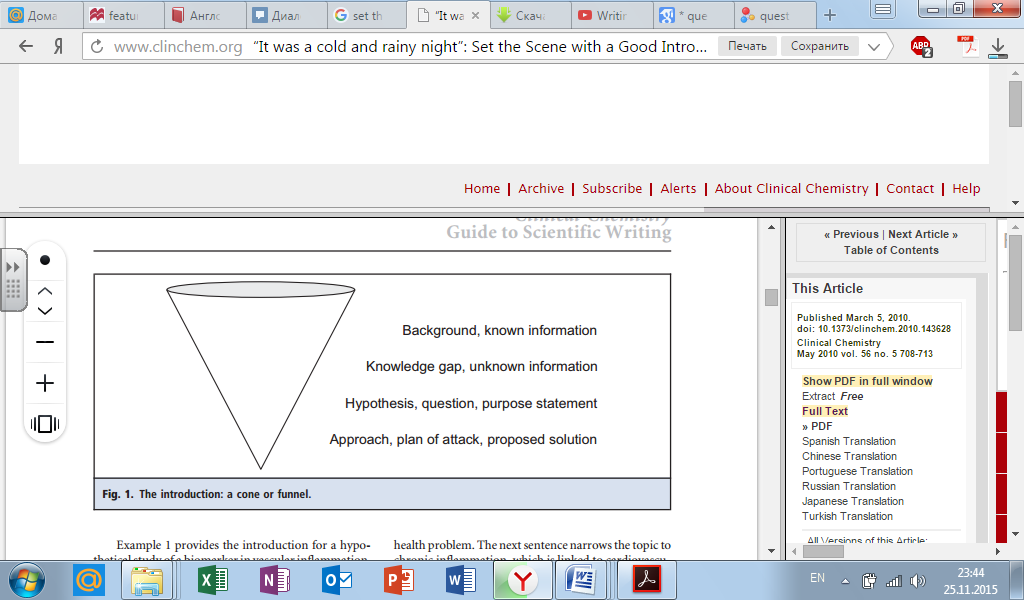
Four key concepts:

1) significance of the topic,

2) the information gap in the available literature associated with the topic,

3) a literature review in support of the key questions,

4) subsequently developed purposes/ objectives and hypotheses.



1. **Read the typical complaints of reviewers and formulate the rules to write a good introduction.**

**Typical complaints of referees**

*The Introduction occupies too high a proportion of the entire paper and contains*

*too many general statements that are already widely known. The rationale and*

*objectives are not defined and the whole section is completely disorganized - it is*

*not clear what problem the author is addressing or trying to solve and why they*

*chose their particular methodology. Much of the initial part is essentially a cut and*

*paste from the Abstract.*

*The author has not related the background information to the objective of the paper.*

*Also, there is no mention of what the reader can expect in the rest of the paper (i.e.*

*main results and conclusions) and how this information will be structured (i.e. into*

*the various sections).*

*Please remember that the paper may be read by inexperienced Ph.D. students or others*

*starting their work in your specific field. Hence, please add an explanation*

*or at*

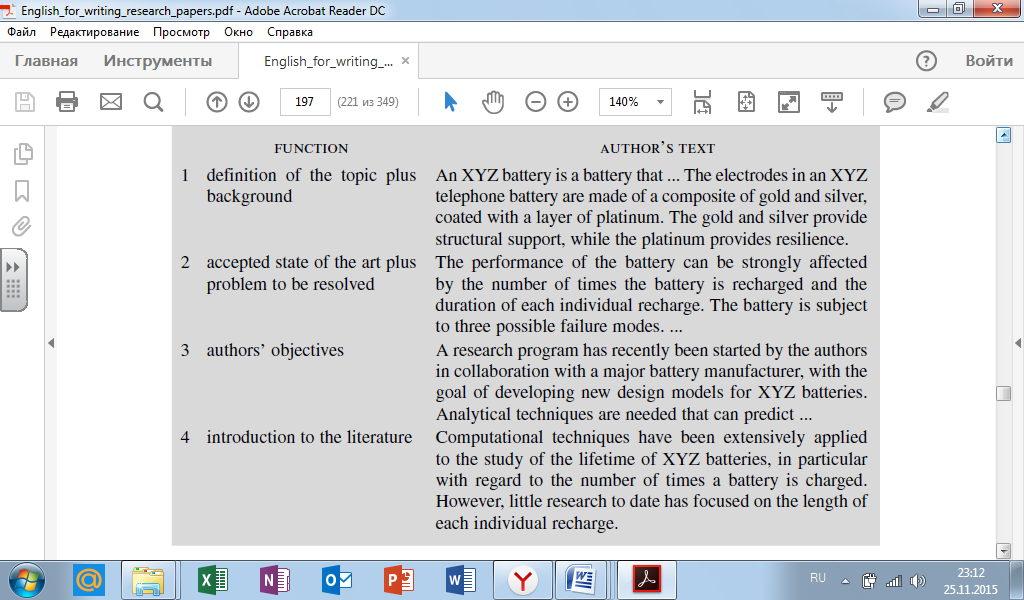
*least a reference when mentioning notions related to … and the terminology for ...*

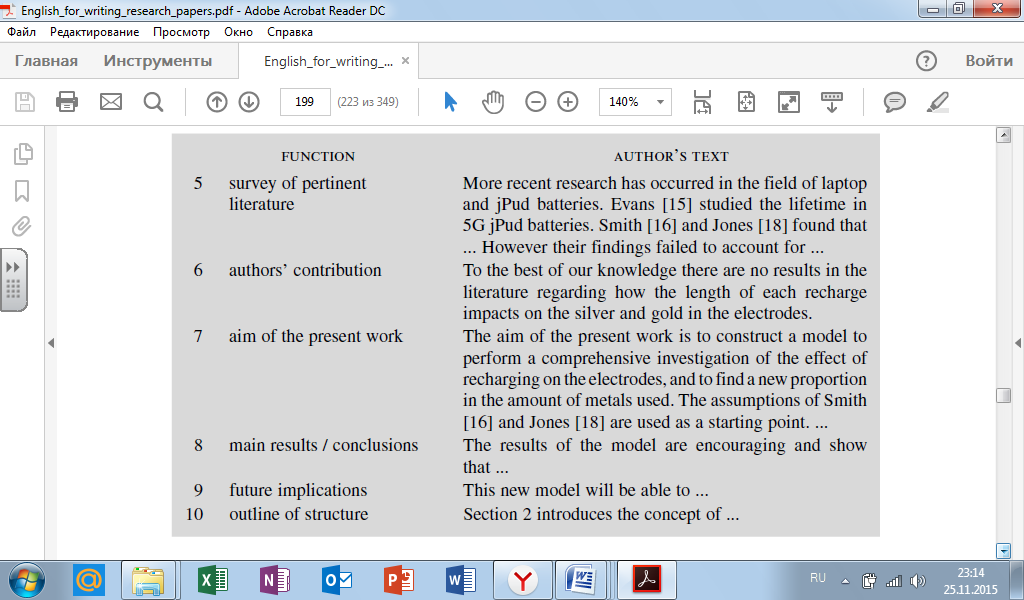
1. **Listening comprehension**

***Listen to the extract from the lecture and answer the following questions.***

1. What is the most important part of the paper? Why?
2. Discuss the problem of writing small, unimportant papers or targeting a well-structured, well-written paper for a good journal.
3. Identify the problems and typical reaction of the referees?
4. What are the needs, identified by the lecturer?
5. What tips are outlined by the speaker on how to place your research within the line of the others?
6. How do we describe the hypothesis?
7. Identify the notion of story-telling in scientific writing?
8. **Functions**

***Read the following text and identify the functions***

******

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**Definition of the topic+ background + establishing the importance of you topic**

**Verbs: goes into/ inquires into focuses on/ deals with/ is devoted to / undertakes to survey( identify) considers)**

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| Y является основной причиной  Н – полезная ( основная ) часть проблемы  Y – входит в число самых используемых ( обсуждаемых, доступных, документированных, противоречивых важных) проблем  Y признается как имеющее важное значение  Всеми признаваемо, известно, что  Y становится все более значимым фактором к  Y-и вызывают значительный интерес в смысле ( в терминах)  Y имеет множество применений в ….  Удивительной( полезной, заметной) чертой Y является…  Основными характеристиками Y являются  Y отвечает за  Работа, представленная в данной статье, возникла путем сотрудничества между отделением... и...  Эти работы были вызваны (= инспирированы)  ранними работами...  В данной статье делается попытка подвести итоги всего известного в настоящее время относительно...  Данная статья описывает результаты. .. |  |

**Issue**

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Syn: matter problem trouble difficulty item point controversy

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| **Данный вопрос возник, поскольку. ..** |  |
| **Другая проблема возникает, когда...** |  |
| **о Затруднение, которое мы обсуждали, не возникнет, если...** |  |
| **Более тонким вопросом является...** |  |
| **о В главе 2 мы вернемся к этому вопросу и попытаемся показать, что...** |  |
| **В подобной ситуации мы могли бы задать два вопроса:...** |  |
| **о В свете этого законен вопрос. ..** |  |
| **В статье [1] Смит поднял вопрос, имеющий существенный интерес.** |  |
| **о В частности, должны быть рассмотрены три вопроса** |  |
| **Возможно, наиболее насущным вопросом является...** |  |
| **о Возникает вопрос, действительно ли...** |  |
| **Возникает вопрос, действительно ли возможно(установить, увидеть *и т.п.)...*** |  |
| **Возникает вопрос, действительно ли обратное (утверждение *и т.п.)* выполняется необходимо.** |  |
| **о Вопрос... все еще остается, в основном, без ответа, хотя...** |  |
| **Это вопрос договоренности, что...** |  |
| **Принципиальным вопросом является, действительно ли... —** |  |