How to Write an Article in English with Effective Phrases?

Etkili Kalıplarla İngilizce Makale Nasıl Yazılır?

ABSTRACT

The aim of this review article is to reveal the crucial patterns which can be very useful to write articles and academic pieces of writing in English for the non-native language users who mostly work in the medical fields. The patterns are presented in tables according to their functional roles accompanied by general examples in the field of medicine to enhance meaning. It should be noted that the examples have general topics which can be applied effectively to the written works by medical professionals. As far as we are concerned the patterns acquainted here will increase the ability to write with an accepted flow and rhythm in scientific settings.

Keywords: Writing an article, medical writing, style in writing, written discourse

ÖZ

Bu derlemenin amacı, çoğunlukla tıp alanında çalışan ve ana dili İngilizce olmayan dil kullanıcıları için İngilizce makale ve akademik yazı üretme bakımından oldukça faydali olabilecek temel kalıpları tanıtmaktır. Bu kalıplar, anlama artrmak veya belirgin bir etki sağlamak için özellikle poorer dil kullanıcılara yönelik olarak medikal alanındaki genel örneklerin eşlik ettiği işlevsel rollerine göre tablolarla sunulmaktadır. Kullanılan örneklerin medikal profesyoneller tarafından yazılı eserlere etkin bir şekilde uygulanabileceği genel kanalın kapsamında önem taşımaktadır. Bu çalışmada verilen kalıpların bilimsel ortamlarda kabul edilmiş bir akış ve hızla yazma becerisini artıracağı görüşündeyiz.

Anahtar kelimeler: Makale yazma, medikal yazı, yazı biçimi, yazılı söylem

INTRODUCTION

It goes without saying that, as to the neurological order of language skills throughout the acquisition process, writing is the last and the most challenging one when compared to the other language abilities like listening, speaking, and reading. From the standpoint of writing in a second or a foreign language, the complexity of this skill, particularly for academic purposes, reveals and in a way necessitates an increased level of language comprising the role of pragmatics as well as enhanced knowledge of vocabulary, syntax, patterns, etc. It should not be misunderstood that English has become the lingua franca, especially for the world of science as an inevitable result of globalization in the 20th and 21st centuries. In this context, the importance of using English for oral and written communication “devices” for the non-native-English people has gained impetus. For most of the international conferences and international scientific publications, English has always been used as the medium language for several years, which is a particularly important point. Needless to say, apart from the scientific value of the outcome, the level of language to be written has to be formal in nature. With this in mind, prominence of accuracy and fluency are vital issues for the scientific writings of various kinds to be published in the scientific world. Apart from its being widely used as the standard language for the published materials in medicine and non-native speakers have difficulty writing articles in English. There are several reasons behind such kind of difficulty, but generally speaking, it stems from the lack of pragmatic language skills affecting the written work. It is a well-known fact that every journal or publication has its guidelines for manuscript submission; however, the content of the written expressions depends on the writing skills necessitating the usage of a particular type of patterns or specialized expressions enabling the author or authors to write more accurately.

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In other words, in order to write effective articles, the knowledge on style, discourse, and pragmatics, which are more than the content presented in the guide for authors, are of paramount importance for the non-native authors.

Title

As a matter of fact, the title of an article must be short, informative, and attention-grabbing. It should be kept in mind that the title should not include statements directly revealing the results. If the results are yet to be mentioned, a kind of style in which the effects are mentioned within “possible” outcomes or a question format should be chosen. According to the manuscript submission guidelines of the journals, name, or names of the authors together with the affiliations and contact information should be written (1).

Abstract

It is an undeniable fact that the content and the components of an abstract vary by the nature of the work and they are mostly determined by the journal. However, generally speaking, the number of words in an abstract diverges from 150 to 250. Again, although the content reveals a large variety, a well-written abstract is expected to convey items like background information, objectives, methods, results, discussion, and conclusions. Any information which may not be mentioned in a detailed way in the main body of your study must not be presented in this section (1-3).

Generally speaking, in order to mention the objective(s) in an abstract, the following phrases could be used (2):

<table>
<thead>
<tr>
<th>The aim of this study was to</th>
<th>analyze, ascertain, assess, compare, define, describe, design, determine, develop, establish, evaluate, illustrate, investigate, perform, present, study, test, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The purpose of this study</td>
<td></td>
</tr>
<tr>
<td>The objective:</td>
<td></td>
</tr>
<tr>
<td>The goal, etc.</td>
<td></td>
</tr>
</tbody>
</table>

Sometimes, it is necessary to provide some background information before presenting the objective(s) of the study. In this case, the objective of the study is presented first and is written in the present tense revealing established facts and previously published data. It should be noted that the objective(s) in this part is written in past tense with mostly passive voice.

Example:
The aim of this study was to investigate the impact of the type of anesthesia on intraoperative events, the incidence of postoperative complications, and recovery time of patients undergoing lumbar spine surgery.

Sometimes active voice could be used with verbs like hypothesize (with “that”), compare, investigate, and etc. with the first person plural pronoun “we”.

Example:
We hypothesized that total hip arthroplasty with regional anesthesia is associated with less postoperative morbidity and mortality than total hip arthroplasty with general anesthesia.

Another way of mentioning the objective(s) of the study can be realized with a passive voice structure by putting emphasis on the study.

Example:
This study was undertaken to evaluate the effect of enalaprilat infusion on hemodynamics and renal function during cardiopulmonary bypass.

Materials / methods section undoubtedly provides information on how the study was conducted and analyzed. The number of subjects, how the patients were selected, conditions of treatment, laboratory and statistical analyses are specified clearly. The methods used to evaluate the data are all stated as well (1). The following phrases will be beneficial for the materials / methods section of the abstract (2):

<table>
<thead>
<tr>
<th>the effects of</th>
<th>by</th>
</tr>
</thead>
<tbody>
<tr>
<td>N patients</td>
<td>underwent</td>
</tr>
<tr>
<td>N patients</td>
<td>with</td>
</tr>
<tr>
<td>N patients</td>
<td>were included/excluded.</td>
</tr>
<tr>
<td>We examined</td>
<td>the effects of</td>
</tr>
<tr>
<td>Statistical analyses were performed</td>
<td>by</td>
</tr>
</tbody>
</table>

... was performed in N patients with...
The convenient tense usage in terms of the materials / methods section of an article necessitates past tense solely with active and passive voice.

Examples:
- Infraclavicular nerve block was performed in 50 patients with diabetes mellitus.
- Eighty-five patients with renal failure were included.
- We examined the effects of thoracic epidural anesthesia on respiratory distress using our animal model.
- Statistical analyses were performed by chi-square and ANOVA tests.

It should be kept in mind that the results section in an abstract only covers basically only the findings of the study, together with the statistical data. The scientific message(s) or suggestion(s) that would be given in the light of the scientific work must be kept for the conclusion part. Another important point to be taken into consideration in the results part is the usage of past tense either in the passive or active voice (1). Here are some examples used in the results part of the articles:

Examples:
- The diameters of proximal and distal radial artery were statistically larger in the nitrogliserine group than those in the control group after anesthesia induction.
- The mean time to alarm activation was longer with lower infusion rates and larger syringes (P<0.05). Syringe type had no effect on time to alarm activation (P>0.05).

As to the conclusion or discussion section in an abstract, first of all, it should be noted that present and past tenses are mainly used and for some determinations of future, without a doubt, the future tense is used as well. Conclusion and discussion part puts forward the outcome(s) of novelty developed in the light of the result(s) of the study. In other words, novel and significant elements of the research are presented. Deductions, assumptions, and suggestions are made within the framework of the results of the study. The scientific study should not go beyond the presented data (1,3). Some examples of conclusion are given as follows:

Examples:
- Induction characteristics of sevoflurane in cyanotic and acyanotic children with congenital heart disease and healthy children are similar. Sevoflurane induction is an effective and well-tolerated technique for cyanotic and acyanotic children with congenital heart disease.
- In the present study; in children undergoing adenoidectomy, adequate preoperative sedation was achieved with all of the anxiolitic drugs used.

Some more conceivable phrases that can be used for the conclusion in an abstract are (2):

\[
\begin{array}{|c|c|}
\hline
\text{The study data} & \text{demonstrate} \\
\hline
\text{Preliminary findings} & \text{indicate} \\
\hline
\text{Results} & \text{suggest} \\
\hline
\end{array}
\]

Examples:
- The study data demonstrate inflammatory cytokines play a role in cervical ripening and the initiation of labor.
- Preliminary findings indicate dexmedetomidine has no neuroprotective effect in patients undergoing CABG surgery.
- Results suggest hypothyroidism was associated with higher morbidity rates.

Although the number of the keywords of the study might vary considerably, they should contain information on the names and phrases about the disease, target organ or tissue, therapy, drugs, and pharmaceuticals studied, and patterns are reflecting the method and outcome, etc. It is also worth remembering that the terms that are used in this section should be related to medical subject headings that permit other researchers to find your work in a literature review. In other words, keywords are very essential for the ones who are conducting literary researches mostly done via the internet (1,2).

Body

Broadly speaking, most of the articles based on observation and analysis comprise subdivisions like introduction, materials and methods, results, and discussion in medical articles. There are some exceptions, of course; reports, reviews, and editorials
necessitate the use of different kinds of formats mostly determined by the author guidelines in journals. In this review, the segments of an article are presented according to a general format which covers exemplary phrases supported with some model examples.

a-Introduction

In the introduction part, the aim of the study, together with its importance, is revealed with the necessary review of the literature. In this section, generally speaking, the present tense is used to give information regarding facts and subsequently released data [2,3]. It can be suggested that the final part of the introduction should contain information on the assumption(s) and the purpose of the study. We reckon that the following phrases that vary by function could be used in the introduction (4):

\[
\begin{array}{|c|c|c|}
\hline
\text{is} & \text{main} & \text{cause of} \\
\text{leading} & \text{primary} & \ldots \\
\text{major} & & \\
\hline
\end{array}
\]

Example:
Renal dysfunction after cardiopulmonary bypass is the primary cause of morbidity and mortality.

\[
\begin{array}{|c|c|c|}
\hline
\text{is} & \text{widely used} & \text{types of} \\
\text{are among} & \text{commonly discussed} & \ldots \\
\text{well-known} & \text{well-documented} & \\
\text{widespread} & \text{commonly investigated} & \\
\hline
\end{array}
\]

Example:
LMA proseal is among well-known types of supraglottic airways.

\[
\begin{array}{|c|c|c|}
\hline
\text{is} & \text{recognized as being} & \text{the most} \\
\text{believed to be} & \text{widely considered to be} & \ldots \\
\text{important} & & \\
\hline
\end{array}
\]

Example:
Nausea is widely considered to be the most important side effect of opioids.

\[
\begin{array}{|c|c|c|}
\hline
\text{is} & \text{well known} & \text{that... is} \\
\text{generally accepted} & \text{common knowledge} & \ldots \\
\hline
\end{array}
\]

Example:
It is generally accepted that ventilator-associated pneumonia is a type of pneumonia that develops more than 48 hr after tracheal intubation.

\[
\begin{array}{|c|c|c|}
\hline
\text{is} & \text{considerable} & \text{interest} \\
\text{are} & \text{increasing} & \text{due to} \\
\text{attracting} & \text{widespread} & \ldots \\
\hline
\end{array}
\]

Example:
Dexmedetomidine is attracting widespread interest due to its sedative and analgesic sparing effects.

\[
\begin{array}{|c|c|c|}
\hline
\text{Last century} & \text{was considered to be} & \text{the most} \\
\text{viewed as} & \text{significant instruments for airway management} & \ldots \\
\hline
\end{array}
\]

Example:
Last century, laryngoscopes were considered to be the most significant instruments for airway management.

\[
\begin{array}{|c|c|c|}
\hline
\text{In the history} & \text{the focus has always been} & \ldots \\
\text{of} & \text{on} & \\
\hline
\end{array}
\]

Example:
In the history of opioids, the focus has always been on their side effects.

\[
\begin{array}{|c|c|c|}
\hline
\text{Scientists / Researchers / Experts} & \text{have always seen} & \ldots \\
\hline
\end{array}
\]

Example:
Researchers have always seen magnesium as an important mineral for brain.

\[
\begin{array}{|c|c|c|}
\hline
\text{has received much attention} & \text{in the last two years} & \text{in the past decade} \\
\text{in the past decade} & \text{over the last two decades} & \\
\hline
\end{array}
\]

Example:
USG usage during peripheral nerve blockage has received much attention in the past decade.
For the past eight years there has been a rapid rise in the use of videolaryngoscopes.

Example:

Previous work has only focused on IV usage of benzodiazepines.

Example:

A major issue of USG usage during peripheral nerve blockage is the experience of the user.

Example:

Current solutions to decrease VAP incidence are inadequate.

Example:

Many hypotheses regarding treatment of ARDS appear to be debatable.

Example:

The mechanism of its cardiac effect is still poorly understood.

Example:

This specific area of cardiopulmonary bypass has been neglected.

Example:

Despite this interest, no one as far as we know has not studied this side effect.

Example:

There has been some disagreement regarding whether they decrease lung water.

Example:

There is little agreement on how they affect the brain.

Example:

The community has raised some concerns about the route and the dosage.

Example:

In the light of recent events in hydroxyethyl starches, there is now much concern about their deleterious effects on kidneys.
The aim of this study is to determine the impact of the type of anesthesia on intraoperative events, incidence of postoperative complications, and recovery time of the patients undergoing lumbar spine surgery.

Example:
This paper presents a new approach to difficult airway management in children.

Example:
This paper is an overview of a diagnostic marker in ischemia reperfusion injury.

Example:
The present paper aims to validate Dönmez et. al’s findings regarding ischemic preconditioning.

Example:
The aim of our research was to broaden current knowledge of the drug’s usage in infants?

Example:
This paper takes a new look at muscle relaxant usage in neonates.

A discussion of ... is / falls outside the scope of this paper.

Example:
A discussion of effects on renal functions is outside the scope of this paper.

For reasons of space ... is not addressed / dealt with / considered in this paper.

Example:
For reasons of space liver functions is not considered in this paper.

b-Materials and Methods

In this section, the way the study was conducted and analyzed is presented mostly with past tense in active or in the passive voice. It should be borne in mind that procedures regarding how the results are gained should be revealed. In a bit more detail, selection of the subjects together with information on age, gender, and the other essential features are acknowledged. The way the data were collected as well as the methods, equipment, and procedures are mentioned in detail with specialized vocabulary when necessary. In this division, another essential point to be kept in mind is that results should not be pointed out in this division at all. In addition, statistical methods are presented in a general framework without mentioning the detail (2,3). In the following tables, some phrases and patterns that we believe beneficial are presented with examples (4):

Example:
After receiving / obtaining the approval from the ethics committee of ... , we included ...
Example:
After obtaining approval from the hospital ethics committee and written informed consent from the patients, this prospective randomized comparative study was done in 90 ASA I-II patients, aged 40-60 years scheduled for elective laparoscopic cholecystectomy, divided into 2 groups of 45 patients each.

Example:
Following the approval of the hospital board for our retrospective cross-sectional study (date: 01.10.2018, number: 1852), 300 patients who underwent elective craniotomy in 2019 were retrospectively investigated.

Example:
Patients having a known allergy to the administered drugs, having cardiac and pulmonary diseases, and having received long-term analgesic treatment were excluded from the study.

Example:
Patients were randomly divided into two groups by a simple drawing-lots method: Rocuronium group (Group R) and vecuronium group (Group V).

Example:
The children with obstructive sleep apnea were excluded from the study.

Example:
Patients who required mechanical ventilation before surgery were excluded from the study.

Example:
The patients were randomly assigned to one of the control group (Group C) or gabapentin group (Group G) consisting of 23 patients each.

Example:
The patients were randomly allocated to 1 of the 3 study groups: group D (dexmedetomidine), group K (ketamine), or group R (remifentanil).

Speaking of the expressions on applications or procedures, the number of the sentences that could be generated seems to be endless, but in the following table a plausible set of phrases are shown.

Example:
Once inside the operating room, patients were monitored with 5-lead electrocardiogram, noninvasive blood pressure monitoring, and pulse oximetry.
Example:
During the postoperative period, the degree of subjects’ pain was evaluated with a 0- to 100-mm Visual Analog Scale (VAS).

Example:
In order to investigate the effects of cytokines on the timing of labor onset, we evaluated sixty nulliparous women who had vaginal delivery.

Example:
This was a retrospective clinical study performed in the PACU of our institution.

Example:
Hundred children who underwent adenoidectomy from January 2017 to December 2018 were studied.

Example:
Demographic characteristics of the patients were recorded.

Example:
This randomized, double-blinded, and placebo controlled study included 2 groups: Group D (dexmedetomidine) and Group P (placebo).

Example:
The assignment of patients to each group was determined randomly by a computer program.

Example:
The data were collected using the patient files.

Example:
Data analysis was performed by IBM SPSS statistics software 23.0 version.

Example:
The normally distributed continuous variables like age, weight, duration of PACU stay were presented as the means ±SDs.

Example:
Fluid responsiveness was determined by pulse pressure variation and systolic pressure variation.

Example:
This model was chosen because it is one of the most practical models to measure pain in rats.

Example:
To assess / evaluate . . ., . . . was used for . . .

Example:
To evaluate the difference between the groups, students-t test was used for normally distributed numeric measurements.

Example:
Chi-square test was used to compare descriptive statistics.
Changes in . . . were identified / calculated / compared by / using . . .

Example:
Changes in the means were compared by ANOVA.

c- Results

As the name suggests, findings which were derived from the assessment tools are given in your paper. The findings are revealed in several numeric representations, tables, figures, illustrations, and so on in a logical order. The similar subheadings should be used in the sections of methods and results of the study in order that the content could be easily understood. Data duplication of all kind should be evaded; in a bit more detail, the same data should not be presented as both a table and a figure. Constancy and regularity of units, symbols, headings, and tagging of axes must be paid attention. Again, past tense in either active or passive voice is used. Moreover, it should be kept in mind that only the findings are presented without interpreting them. The interpretation and comments are kept for the conclusion part (1,2).

In the following tables, some phrases and patterns that we believe beneficial are presented with examples (4):

There were . . . patients who . . . at / in . . .

Example:
There were 15 082 patients who had noncardiac surgery at Dişkapı Hospital in 2018.

Among . . . patients who had . . . preoperatively, . . . had . . .

Example:
Among 9018 qualifying patients who had HbA1c level recorded preoperatively, 879 had HbA1c > 7%.

A / an . . . is shown / revealed / presented in figure . . .

Example:
A flow chart is presented in Figure 1.

. . . patients completed the study, there were no adverse events related to the study.

Example:
Fifty-four patients completed the study, there were no adverse events related to the study.

. . . consecutive patients undergoing . . . were enrolled.

Example:
Hundred consecutive patients undergoing kidney transplantation were enrolled.

. . . patients requiring . . . were excluded from the study.

Example:
Five patients requiring postoperative mechanical ventilation were excluded from the study.

. . . data of the patients are presented in . . .

Example:
The demographic data of the patients are presented in Table 1.

. . . show / display / represent, etc. of the patients in . . .

Example:
Table 1 displays demographics and baseline characteristics of the patients in both groups.

The preoperative and postoperative blood pressure and heart rates of the patients are listed in Table 2.

The results of . . . are shown in . . .

Example:
The results of noradrenaline measurements are shown in Table 3.
Among the ... patients, there were ... , ... , and ... .

Example:
Among the 1000 patients, there were 5 in-hospital deaths (0.5%), 1 postoperative bleeding (0.1%), 2 renal insufficiency (0.2%), and 2 with low cardiac output (0.2%).

There was a significant / positive / no correlation between ... .

Example:
There was no correlation between the plasma cortisol levels and gastric pH measurements.

No significant difference was found between the groups in terms of bronchospasm.

There were no significant differences in the number of patients who had no headache and mild headache in Groups S and C, compared with Group SC.

None of these differences were / Not one of these differences was statistically significant.

Example:
None of these differences were statistically significant.

Overall / Taken as a whole / Generally speaking / With a few exceptions, our results show that ... .

Example:
With a few exceptions, our results show that dexmedetomidine did not affect pulmonary artery pressure.

We believe that / As far as we know / As far as we are aware this is the first time that ... .

Example:
As far as we know, this is the first time that stellate ganglion blockade was used for preventing radial artery spasm in cardiac surgery.

d—Conclusion and Discussion

Generally speaking in this part, a sort of interpretation is provided in the light of the results together with the importance of future studies. Besides, the novel and significant elements of the research are presented. Detailed data and the other information presented in the introduction and the results section should not be pointed out. Potential consequences and constraints of the results should also be included together with consequences for future studies. The concluding remarks should be linked to the findings of the research objectives. You should not use incompetent assumptions and recommendations which are not fully directly supported by the results. For the studies that are still underway, the authors should avoid implying the importance and precedence of the study. In addition to the descriptive opinions of the authors, some recommendations and key messages could be mentioned as well. In the discussion part, it is essential to point out the consequences of the findings and their limitations through pointing out the relationships among facts revealed. If it is justified, new hypotheses could be put forward. Several recommendations could be proposed as well. Speaking of the tenses, combination of past, present, and future tenses are used. In the following tables, some phrases and patterns that we believe beneficial are presented with examples:

In conclusion / In summary / In sum / To sum up, our work / study has led us to conclude / the conclusion that ... .

Example:
In conclusion, our study has led us to conclude that gabapentin premedication at a dose of 15 mg kg⁻¹ orally, reduces postoperative 24 hour total analgesic consumption in children undergoing tonsillectomy.
The evidence from this study points out that intestinal fatty acid binding protein would be a valuable way to monitor intestinal ischemia in patients undergoing open heart surgery.

Example:

The results / findings of this study indicate / support / suggest / the idea that... that...

Example:

The findings of this study support the idea that TAP blocks and local anesthetic infiltration in laparoscopic cholecystectomy, has similar results on early mobilization and discharge of the patients.

Example:

Taken together, these results suggest / would seem to suggest that... that...

Example:

Our research / This paper has highlighted / stressed / underlined the importance of... that...

Example:

This paper has underlined the importance of effective analgesia after ambulatory surgery.

Example:

We have found a novel solution for... that...

Example:

We have obtained comprehensive results demonstrating that... that...

Example:

We have confirmed / provided further evidence / demonstrated that... that...

Example:

We have confirmed that the efficacy of lornoxicam in the management of acute postoperative pain was similar but not superior to that of the other analgesics administered.

Acknowledgements

In the context of showing respect for those who contributed to the study should be acknowledged. Any kind of help or assistance, including financial support should be addressed. It should be kept in mind that written permission should be taken from every author for the ones to be acknowledged. The following phrases could be useful for thanking the ones who contributed to the study (2):

Example:

The authors express their gratitude to Prof. Dr. Feyhan Ökten, for her outstanding support.

Example:

The authors thank Assoc. Prof. Dr. Derya Gökmen for the analysis of the statistics and her help in the evaluation of the data.

Example:

We also thank Lara Emre for her assistance in preparing the manuscript.

DISCLOSURES

Almost all of the publishers require a sort of formal document which reveals that there are not any probable conflicts of concern of the authors. When submitting an article to a journal, full disclosure is needed. Most of this kind of documentation is arran-
ged through web-based applications by the authors like our journal has one. Others have certain forms to be printed out, filled in, and signed.

CONCLUSION

When compared to the other language skills like listening, speaking, and reading, writing skills, particularly in academic writing atmosphere necessitate some more accuracy and precision. From this perspective, when writing a scientific paper or an article, researchers should follow specific written discourse skills concerning coherence and cohesion in the light of a formal style. Therefore, the knowledge of the necessary phrases and expressions or pattern knowledge when writing an article plays a crucial role in term of developing the customary parts like abstract, introduction, materials and methods, results, conclusion, and discussion, etc. In other words, apart from the scientific content and innovative aspects of the study, some specialized vocabulary and phrases should be applied to write more accurately and fluently. In the light of the phrases and functional patterns together with meaningful examples that we have revealed in this review, our impression is that the mentioned forms will help the readers in writing their articles more quickly and effectively. In conclusion, what we would like to highlight is that sentences written according to precise patterns would also increase comprehensibility, which is a critical element of assessment procedures provided by journal reviewers and editors.

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REFERENCES