

# LITERACY PROBLEMS OF INFORMATION MANAGEMENT STUDY PROGRAMME GRADUATES

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## Annotation

The article analyses literacy problems of Šiauliai State College Information Management Study Programme graduates. These graduates fall into the category of employees, for whom writing without errors is not a choice, but a necessity. The language study of the graduation papers showed that the students' literacy is average: more than half (54%) of the papers were assessed as of typical or threshold level. Left spelling, punctuation, language errors, typographical errors have been found in the papers, the text is not always formatted in accordance with the requirements of the scientific style.

**Key words:** information management, study programme, learning outcomes of the programme, literacy, spelling, punctuation and language errors.

## Foreword

**Topic relevance.** Šiauliai State College (hereinafter - the College) Information Management (hereinafter - IM) Study Programme graduates are specialists capable to work both in traditional information storage and management institutions (libraries, archives, museums, etc.) as well as in modern (businesses, various organisations, large data management institutions, etc.) (Description of *the Information Management* Study Programme, 2021). One of the main tools of their work is spoken and written Lithuanian, which is used for creation and processing of various information. Aim of *the IM* study Programme and intended learning outcomes emphasize special skills to provide information services, **utilize various social media platforms, organize informal information and cultural literacy education**, emphasizes social ability to act effectively and communicate in writing and orally in Lithuanian and foreign language in an unfamiliar, changing, interdisciplinary environment (Description of *the Information Management* study Programme, 2021). Thus, graduates of *the IM* study Programme are those representatives of Social Sciences, whose activities are often related to the creation of texts of different functional styles and genres: they have to write various documents, business and personal letters, press releases, advertisements, etc. This means that the literacy of these graduates should be excellent.

The College pays great attention to improving students' literacy: *Professional Language* subject is taught, consultations on language issues are given to the Graduation Paper developers (hereinafter - GP), literacy of all study programmes GP or Graduation Project developers literacy is assessed, which influences the final assessment of the Graduation Paper or project. In particular, it is important to achieve an excellent level of literacy for students of various study programmes of the Social Sciences study field group implemented at the College (including *IM*), whose future work often requires good text creation and presentation skills.

*One possibility to test such students' skills is language assessment of GP.* Graduation paper - is "a qualifying work of learning outcomes assessment of academic research or project character, analysing a relevant topic according to the requirements of the study programme and the Description developed by the student independently" (Description of the GP Development Procedure, 2019, 1). As the GP is classified as a work of a scientific nature, its language should comply with the requirements of the scientific functional style, and the GP itself should be written in accordance with the norms of Lithuanian language culture, writing, punctuation and typing.

Therefore, for the reasons listed, it is important to know the level of literacy of the College graduates in order to be able to assess one of the aspects of their preparation for paper writing in future.

Literacy of the GP developers of the College *IM* study programme has not yet been analysed in detail, therefore the topic of the study is relevant not only to the students themselves, but also to the teachers who teach *Professional Language* subjects or who have included the use of correct language as the criteria of student works assessment, in order to determine what needs to be corrected in order to achieve the intended study aim and outcomes.

**Research problem.** A significant part of the students of *IM* study Programme, who have chosen a part time study mode, are middle-aged, i.e. have graduated secondary school a while ago and remember the rules of the Lithuanian language, only if they do self-study. After graduating from the gymnasium, young students coming to the higher education institution in the same or next year are also somewhat forgotten the writing and punctuation, because they were studying in the gymnasium and classes are repeating in the gymnasium. For the above-mentioned reasons, students leave various errors in the Lithuanian language in their written works. These observations prompted to carry out the study and answer problematic questions – what is the literacy of the *IM* Study Programme graduates? What Lithuanian language culture, spelling, punctuation errors and typographical errors are most common? What Lithuanian language learning gaps at school do mistakes reveal? What impact does scientific text make for occurrence of errors?

**Research object:** *Language of the graduation papers of the Information Management Study Programme.*

**Research aim:** *to analyze the literacy of the graduation papers developers of the Information Management study Programme.*

1. *Review scientific literature on literacy issues.*

2. *Characterize the literacy problems of the developers of the graduation papers of the Information Management Study Programme.*

**Research methods:**

1. *Analysis of scientific literature.*

2. *Document content (semantic) analysis.*

3. *Descriptive analytical method.*

### **Literature review**

The topic under discussion is not entirely new in scientific literature, but is still gaining attention. One of the reasons for the analysis of literacy problems is the deterioration of the results of the state examination of the Lithuanian language and literature. In recent years, the number of failed exams was slightly higher than in previous years: in 2020, 10.77 per cent of graduates did not pass the exam, in 2019 – 9.03 per cent of graduates, and in 2018 – 8.75 per cent. The limit for passing the Lithuanian Language and Literature State Maturity Examination is 30 per cent of the task points. In 2020, the average number of points was 53 points (in 2019 and 2018 it was 54.4 points), and even 107 people who failed the exam did not score any points (Lukšytė, 2020). Such results clearly show not only pupils' inability to create text, formulate thoughts, but also a lack of basic literacy knowledge and skills, which are acquired even in primary classes. It is obvious that a part students who have come to higher education institutions to study often continue to demonstrate gaps in Lithuanian language culture, writing and punctuation.

The language of students' scientific works in Lithuania was mainly analyzed from the point of correctness. Numerous linguists discussed students' and pupils' literacy problems: A. Zabarskaitė, A. Smetona, A. Rimkutė, J. Macienė (see Macienė, Rimkutė 2014), J. Vaskelienė (2015), S. Damanskienė (2016), L. Vilkienė (2019). A. Malakauskas (2013) analysed the most common grammar and lexical errors in common spoken and written language, based on texts created by students and other authors. The subject under discussion is interesting not only for scientists, but also for practitioners, i.e. teachers of Lithuanian language (Markevičius, 2019a; 2019b), as well as for an educated part of society not directly related to the teaching of the mother tongue (see Macienė, Rimkutė, 2014). gimtosios kalbos mokymu (žr. Macienė, Rimkutė, 2014). Researchers note that one of the reasons for poor literacy among pupils is the early discontinuation of language classes, because in higher classes "there is taught almost exclusively literature and too little care is taken for literacy" (Markevičius, 2019b, 83). Another reason is "low overall literacy, low self-reading, lack of interest in culture," among pupils who later become students as well as negative relationship with written text or book" (Macienė, Rimkutė, 2014, 55). It also could be noted a technological incapacity "to ensure the use of Lithuanian characters in electronic media (in mobile devices and on the Internet) (Kulbeckienė, Macienė, 2019, 35). Other aspects of literacy are also analysed in the scientific articles. Shortcomings of public language (students and others), which violate logic, were more broadly discussed by I. Jurgaitytė and K. Župerka (2015; 2016), poor student literacy as an obstacle to effective communication by J. Macienė (2016). The shortcomings of the scientific style of students' works were reviewed in more detail by J. Macienė (2018). The topic discussed in this article is an attempt to investigate the literacy of a specific target group – the College *IM* Study Programme GP developers - and to describe the most common errors and typos in the Lithuanian language and present quantitative results.

## Methodology

The College pays considerable attention to improving students' literacy: students of all study programmes have 3 credits subject *Professional Language*, the criteria for evaluating written independent tasks related to social or management sciences include the requirement to use a correct language. In addition, one of the criteria of the evaluation of GP or final projects of all study programmes (e.g., The Description Of The Procedure For Developing of GP (2019)) is formulated as "compliance of the paper with the formal requirements of structure, format and correct language".

Since 2019 the college participates in the project "*Consultation of Graduation Papers Developers*" supported by the State Lithuanian Language Commission. The idea of this project is to give GP developers possibility to consult on Lithuanian language issues and to improve literacy competence. As a feedback showing students' level of literacy, GP language is assessed.

In accordance with the Description approved by the College (2019), three GP pages are selected at random for the final assessment of the GP language and errors of spelling, punctuation, language culture and proofreading are calculated therein. It is assessed whether the GP is written in accordance with the requirements of the scientific functional style. Recurring errors of the same type (for example, writing singular accusative case form without a nasal letter for the same word or not distinguishing same parentheses) are counted as a single error. Summary of all found errors leads to the conclusion that literacy is excellent – up to 4 errors, typical – 5–9 errors, threshold – more than 9 errors. A paper written not following the requirements of scientific style cannot be considered of excellent literacy. The research described in this article follows the same error calculation procedure.

Taking into account the provisions of the Description (2019), it is recommended that the members of the Qualification Committee take into account the conclusion of the report on the assessment of the correctness of the GP language and not to evaluate the paper with the highest score (9, 10) which literacy is of a threshold level.

**The research material** described in this article – 11 graduation papers of the College *IM* Study Programme defended in 2020. Since the College participates in the project only from 2019, and no *IM* Study Programme students graduated in that year, it is not possible to perform comparative literacy analysis of *IM* Study Programme GP developers.

The examples discussed in the article are presented by copying sections of longer texts. Language errors are corrected, analyzed, and commented.

## Results

Having analysed the errors of Lithuanian language culture, spelling, punctuation and proofreading found on three pages of each of the eleven GPs of *the IM* Study Programme, it was found that at least one error was found in all GPs, and the maximum number of errors found was 15. Two (18.2 per cent) GP were written only partially in accordance with the requirements of the scientific style. The literacy of five GP developers was rated excellent, four - as typical and two - as threshold. Thus (54 per cent) of GP developers made 5 or more mistakes and 18.2 per cent of GP were not even recommended to be evaluated for the highest scores (9 and 10).

The distribution of results by types of errors is following (see table):

Table 1

Number of errors in eleven *IM* study programmes GP

No. No.	Error type	Total number of errors
1.	<b>Spelling</b> (nasal vowels, long and short vowels, writing words together and separately, capitalization, etc.)	3
2.	<b>Punctuation</b> (punctuation of subordinate clauses, parts of sentence, etc., i.e. compulsory punctuation)	24
3.	<b>Language culture</b> (major lexical, word formation, morphological and syntax errors)	18
4.	<b>Formal</b> (proofreading errors)	22
<b>Total errors</b>		<b>67</b>
5.	<b>Weaknesses in scientific style</b> (clarity, precision, conciseness)	Nine of GP were written in accordance with the requirements of the scientific style; two were written partly in accordance with the scientific style.

The table shows, that GP developers mostly make **punctuation errors** – 35.8 per cent of all errors found. The most common cases of mistakes when typing or not typing punctuation marks are:

1. Punctuation marks are omitted where they should be:

1.1. Separating the subordinate clause from the main clause or when the subordinate clause appears in the main (<...> *turinio iškraipymas yra pagrindinė priežastis dėl ko sutrinka* <...> (= <...> *turinio iškraipymas yra pagrindinė priežastis, dėl ko sutrinka* <...>); <...> *populiariausia paslauga, kuria dažniausiai naudojasi vartotojai yra kultūriniai renginiai* (= <...> *populiariausia paslauga, kuria dažniausiai naudojasi vartotojai, yra kultūriniai renginiai*).

1.2. Separation or emphasis of extended attributive after attributive word (*Įmonės teikiančios paslaugas tikslai gali būti komerciniai arba nekomerciniai* (= *Įmonės, teikiančios paslaugas, tikslai gali būti komerciniai arba nekomerciniai*)).

1.3. Separating or emphasizing an insert (*Anot D. Baltrušaičio (2011) <...>* (= *Anot D. Baltrušaičio (2011), <...>*); *Pasak Z. Atkočiūnienės (2009) <...>* (= *Pasak Z. Atkočiūnienės (2009), <...>*)).

2. Punctuation marks are put in an unreasonable manner:

2.1. Before conjunctions *ir, bei, arba* (*Taip pat svarbi kliento, bei paslaugos tiekėjo pagalbos integracija* (= *Taip pat svarbi kliento bei paslaugos tiekėjo pagalbos integracija*)).

2.2. Before parts of the sentence not separated by comma (*Norint išlikti konkurencingiems, tarp kitų įmonių, reikia <...>* (= *Norint išlikti konkurencingiems tarp kitų įmonių, reikia <...>*)).

On the basis of the results of the study, it can be stated that the GP developers of the IV Study Programme type the text inaccurately or lack computer literacy skills, because even 32.8 per cent of the errors belong to the **errors of formal group of errors** (proofreading, typing). The following errors are assigned to this group:

1. Confusion of long and short hyphen (*Sudaryta remiantis 16-17 psl. pateikta teorine medžiaga* (= *Sudaryta remiantis 16–17 psl. pateikta teorine medžiaga*); *Šiuolaikinė biblioteka \_ tai ne tik ta vieta <...>* (= *Šiuolaikinė biblioteka \_ tai ne tik ta vieta <...>*); *informaciniai = publicistiniai renginiai* (= *informaciniai-publicistiniai renginiai*)).

2. Writing non-Lithuanian quotes (“*Sukūrus naujas ir teikiant tradicines paslaugas <...>*“ (= „*Sukūrus naujas ir teikiant tradicines paslaugas <...>*“); termino „*pasitenkinimas*“ reikšmę (= termino „*pasitenkinimas*“ reikšmę)).

3. Inaccurate use of word forms (*informantai dalyvauja daugumoje bibliotekų organizuojamuose renginiuose* (= *informantai dalyvauja daugumoje bibliotekų organizuojamų renginių*)).

4. Skipping gaps (*tyrimo objekto, t.y. informacinės elgsenos* (= *tyrimo objekto, t. y. informacinės elgsenos*); *dalyvavo pristatymuose/parodose* (= *dalyvavo pristatymuose / parodose*)).

Just over a quarter – 26.9 per cent of errors found in GP texts make **language culture**<sup>1</sup> errors such as:

1. Errors of the words meanings<sup>2</sup> (*O viena iš geriausių šio modelio savybių yra ta, kad jo dėka galima palyginti <...>* (= *O viena iš geriausių šio modelio savybių yra ta, kad ji taikant galima palyginti <...>*); kurie **apjungti**<sup>3</sup> į tris pagrindines dalis (= kurie **su**jungti [suskaityti] į tris pagrindines dalis).

2. Syntax errors:

2.1. Invalid declension (*Organizacija, teikianti tokias pat ar aukštesnės kokybės paslaugas, <...> tampa patrauklesnis darbdavys* (= *patrauklesniu darbdaviu*)).

2.2. Incorrect verb form usage (*Remiantis šiais atsakymais galime daryti prielaidą <...>* (= *Remiantis šiais atsakymais galime daryti prielaidą <...>*)<sup>4</sup>.

3. Morphological errors when using the wrong form of gender (*Šiam tikslui įmonės yra sukūrę <...>* (= *Šiam tikslui įmonės yra sukūrusios <...>*)).

The smallest number just 4.5 per cent – GP developers made **spelling mistakes**:

1. Nasal letter is not written in the plural accusative form ending (*išimčiu* (= *išimčių*)).

2. The rule of spelling words together and separately is not followed (*iš kart* (= *iškart*)).

3. Writing nasal letters in the root is mixed (*savybių* (= *savybių*)).

<sup>1</sup> **Language culture** is a branch of linguistics that deals with the management of language facts and codification of language norms and the practice of their use; compliance of speech with established language norms (pronunciation, formation, use of words, etc.) (Gaivenis, Keinys, 1990, p. 96).

<sup>2</sup> **Word meaning errors** are considered to the **dictionary** (lexical) errors group. It also includes not recommended for usage foreign words, their derivatives and not recommend translations.

<sup>3</sup> The word **apjungti** is attributed to errors in the meaning of words and compounds and not to errors of the structure of words (see <http://www.vlkk.lt/aktualiausias-temos/didziosios-klaidos/zodyno/zodziu-ir-junginiu-reiksmes-error>).

<sup>4</sup> Possible correction of this sentence *Remdamiesi šiais atsakymais galime daryti prielaidą <...>* is not advisable to use in scientific style texts where the personality, i.e. the first person forms, should be avoided.

Two GPs – 18.2 per cent of all GPs of the *IM* Study Programme papers were written only partially in accordance with the requirements of the scientific style. *Scientific style* is „a language of scientific works characterized by subject accuracy, logic, conciseness, generalization, objectivity, completeness, clarity, use of scientific terms, concepts, logically based syntax“ (Vaskelienė 2007, 15)<sup>5</sup>. Considering this, if some of the above mentioned characteristics are not followed by the GP developer, it can be said that the scientific style requirements are not fully or only partially met.

The requirements of the scientific style are closely interrelated, so when discussing one of them, the others are often mentioned. For example, a logically formed text is usually also clear, scientific terminology is used for accuracy of subject, and a comprehensive text often leads to summarisation. Unfortunately, if one of the requirements is not met, the others are usually met as well.

GP developers of the *IM* Study Programme in the text violate the following requirements of the scientific functional style:

1. Clarity and logic (<...> didžioji dauguma klientų teigiamai vertina <...> (= <...> didžioji dalis, dauguma klientų teigiamai vertina <...>) – “dauguma” can not be neither big nor small).

2. Clarity and correctness (<...> kurie pateikė pagrindines socialinių tinklų populiarumo priežastis internete (= <...> kurie pateikė pagrindines socialinių tinklų populiarumo internete priežastis) – it is not clear from the sentence whether reasons are provided on the Internet or whether the social networks themselves are popular on the Internet); kurie apjungti (= sujungti) j tris pagrindines dalis (= kurie suskaidyti į tris pagrindines dalis) – it is not clear what is meant from the sentence - the merging of small elements into larger groups or the initial separation of elements according to certain attributes).

3. Objectivity (Išanalizavus šiuos argumentus, galima teigti, kad SERVQUAL metodas yra nuostabus dėl savo efektyvumo <...> (= Išanalizavus šiuos argumentus, galima teigti, kad SERVQUAL metodas yra tinkamas dėl savo efektyvumo <...>); (Tai yra džiuginantis rezultatas žmonei (= Tai yra teigiamas, geras, puikus rezultatas žmonei) – when using words that describe strong emotions, objectivity is lost, a subjective attitude of the author is presented, which brings the text closer to the publicist style<sup>6</sup>).

4. Logic, logically based syntax (Bibliotekos, kaip organizacijos įvaizdžio formavimas, gali būti gana efektyvi priemonė potencialių vartotojų elgsenai veikti (= Bibliotekos, kaip organizacijos, įvaizdžio formavimas gali būti gana efektyvi priemonė potencialių vartotojų elgsenai veikti) – improperly placed punctuation marks destroy logically based syntax, so the sentence becomes confused, the idea is formulated unclearly, the text seems illogical).

Summarizing the analysed study results, it can be stated that the GP developers of the *IM* Study Programme are best proficient at Lithuanian language spelling rules, but often make mistakes when placing punctuation marks, make a number of linguistic errors and print text inaccurately or do not have computer literacy skills.

Since at the College, *Professional Language* subject focuses on the language of science, professional language and texts, and does not review spelling and punctuation rules, it can be assumed that assessment results for literacy are partly due to the gaps in spelling, punctuation and language culture taken from school.

The results of the assessment of literacy of GP developers of the *IM* study programme suggest that the use of scientific style does not have any significant impact, since the errors found in BD are mainly related to the lack of skills in punctuation, language culture and text typing on a computer.

## Conclusions

1. Graduates of Šiauliai State College *Information Management* Study Programme are specialists, and in their activities literacy is one of the main competencies, therefore the aim and intended learning outcomes of the studies, the content of the programme and additional measures are also focused on the development of this competence.

2. When assessing the literacy of GP developers, the language of GP is assessed and the results obtained affect the final GP assessment.

3. On average, the literacy of the GP developers of the *IM* Study Programme is typical when 5–9 errors are found in the GP pages being analyzed. No GP was written without errors, the maximum number of errors found was 15. Two GPs were written only partially in accordance with the requirements of the scientific style.

<sup>5</sup> Similarly, the scientific functional style is described by other linguists: K. Župerka (2012), A. Bitinienė (2013).

<sup>6</sup> One of the most important functions of the publicist style is the influence, which is achieved both by arguments and verbally (see Bitinienė, 2007).

4. According to the types of errors, more than a third of errors in the GP of the IM study programme are punctuation errors, and almost a third are formal errors. The smallest number of errors are spelling errors in GP. The main errors are punctuation of subordinate clauses, attributives, explanatory parts, insertions, cases, usage of verbs errors, incorrect usage of words *įtakoti*, *gautis*, *sekantis*, etc. The results of the assessment of literacy suggest that the use of scientific style does not have any significant impact, since the errors found in GP are mainly related to the lack of general language usage and typing on a computer skills.

5. It is recommended that teachers delivering the subject of the Professional Language for the IM Study Programme or teachers who include the use of correct language as the criteria for the assessment of students' works pay more attention to the development of students' literacy competence: discuss mistakes, clearly define the impact of mistakes on the final evaluation of the paper.

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