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CER Comparative European Research 2019

Proceedings | Research Track

of the 11th Biannual
CER Comparative European Research
Conference

International Scientific Conference for Ph.D. students of EU countries

March 25-27, 2019 | London

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Introduction

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ANALYSIS OF PRESS RELEASES BY PHARMACEUTICAL COMPANIES IN SLOVAKIA

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Abstract: This work deals with the content analysis of press releases issued by the companies operating in the pharmaceutical industry in Slovakia in the first quarter of 2017. The theoretical part depicts the processes in the pharmaceutical industry, defines a press release and public relations. We build on these and use the content analysis method to achieve the best results possible. We consider our results to be beneficial and inspiring because we have not met a similar research yet.

Keywords: press release, public relations, pharmaceutical industry, content analysis

1. Introduction

Labor issues were selected for two reasons. The first is that the research of marketing communications in the pharmaceutical industry is not given such attention to and the second is that a similar situation affects the press releases. Therefore, we consider it important to theoretically define the terms "pharmaceutical industry", "public relations" and "press release" using the definitions we relied on in our research.

The Collection of Laws of the Slovak Republic defines the pharmaceutical industry as an industry in the field of pharmacy. Pharmacy is described as a field that specializes in testing the medicinal products, placing the medicinal products and medical aids on the market and putting medical devices into operation, production of medicines, wholesale distribution of medicinal products, provision of pharmaceutical care, quality assurance and control, control of effectiveness and safety of medicinal products and devices, whereby most of these are carried out by pharmaceutical companies [12]. Similarly we say that the pharmaceutical industry specializes in discovering and developing medicines and vaccines, which are subsequently offered for sale to the patients through pharmacies [5].

Public relations have a special role in marketing communication because they create and maintain mutual knowledge, understanding, acceptance and cooperation between the organization and the general public. Also, they serve as an early warning system to help anticipate the trends; and use research and ethical communication techniques as their principal tools. Public relations include one of the most widely used methods of communication with the public – press releases [6, 11].

Press releases may be issued by the companies on a voluntarily basis; their issuance is often associated with the financial quarters and reporting to the public and partners about the economic situation of the company. They also can be used for crisis communication of the companies with the general public. These reports may also contain visual components that support the published text [2]. Press releases are some of the most widely used and most important tools of public relations [3].

2. Research methodology

Our research revolves around the following research problem: in this day and age not much attention is paid to the analysis of press releases and the overall marketing communication research in the pharmaceutical industry in Slovakia.

To obtain the most objective results, we decided to opt for the content analysis method. Content analysis is a suitable method of research that allows an objective and systematic description of a phenomenon. Content analysis can deal with content, its form, and the author and recipient of the release. Content analysis seeks and demonstrates the importance of the most frequently used written or visual tools. Therefore, content analysis tends to analyze newspapers, correspondence, documents and reports [1]. In each content analysis it is necessary to determine the categories of research [10]; we have identified the following research categories:

- **Content** of the press release: promotion of the company, promotion of the product, opinion on a particular situation, information on improving human health, information about diseases
- **Length** of the press release: up to 1800 characters, from 1801 to 3600 characters, more than 3600 characters
- **Recipient** of the press release: media, public, suppliers, other
- Presence of **visual components** in the report: yes / no

After studying the list of pharmaceutical companies available at the webpage of Ministry of Health of the Slovak Republic, we decided to select the following companies for analysis into our research set: TEVA Pharmaceuticals Slovakia s.r.o., GSK Slovakia s.r.o., KRKA Slovensko s.r.o., Boehinger Ingelheim RCV GmbH & Co KG.

This means that our research set was chosen purposively. The purposive sampling of our research set was performed on the basis of our judgment based on the available knowledge and facts.

Our research falls into the category of homogeneous sampling because we are dealing with a specific subset, i.e. the companies in pharmaceutical industry. The accuracy of results cannot be determined based on mathematical statistics [4, 7]

Our research was clearly limited by the number of researchers, which was proportionally reflected in the size of the research set. Also, our research was limited by the virtual absence of similar research and therefore the inability to compare our results with others similar results in Slovakia.

2.1 Objectives and hypotheses
The aim of our work is to analyze the content of press releases issued by the companies operating in the pharmaceutical industry.

2.1.1 Partial goals

Finding the occurrence rate in each category of analysis and subsequent processing of data to arrive at the final results.

2.1.2 Research question

Based on the data presented, we decided to establish a research question instead of using the hypotheses.
What specific features can be found in the press releases issued by the pharmaceutical companies in the individual categories?

(Content, length, visual components and recipients)

3. Analysis and interpretation of research results
In this section, we would like to present the data we collected and processed. For better visibility, each category is accompanied by a table with the research results.

3.1 Content of the press release
In this category, we focused on the range of topics presented in the press releases issued by the pharmaceutical industry. The largest group, with 11 press releases, was identified in the subcategory of expressing an opinion on the particular situation. This shows that a quarter of press releases serve to express the attitude of the company to a particular situation. The second most frequent subcategory with 9 press releases was company promotion through a press release and/or promotion of the company's results. The third most numerous subcategory with 7 releases was the press releases used by the company to promote a product. The "Others" category included the reports whose content did not match any of the identified subcategories, with a total of 6 reports. The specific

aspects of the pharmaceutical industry were noted in the content subcategory (4 releases), in which the company informed the public about a disease and in the subcategory where the content of the press release focused on improving human health (3 releases).

Table 1: Content of the press release

Content of the press release	Count
Company promotion	9
Product promotion	7
Opinion on a particular situation	11
Information on improving human health	3
Information on diseases	4
Other	6
Total	40

3.2 Length of the press release
An ideal press release should be one A4 page, which equals to an equivalent of up to 1800 characters. Therefore, we wanted to see what the situation is like in the pharmaceutical industry. The examined reports were divided into three subcategories: press releases with up to 1800 characters (1 A4), press releases from 1801 to 3600 characters (2 A4s) and press releases over 3,600 characters (>2 A4s). The character count only included the text characters without any visual components, if present. Since the pharmaceutical industry concerns human life, the press releases of the companies in the field of pharmacy were more detailed and thus ¾ of the reports ranked in the 1801 to 3600 characters and over 3600 characters subcategory.

Table 2: Length of the press release

Length of the press release	Count
Up to 1800 characters	10
From 1800 to 3600 characters	19
More than 3600 characters	11
Total	40

3.3 Recipients of the press release
A press release is generally considered to be intended for the media [3]. In our case, the recipients of press releases in the pharmaceutical industry sometimes deviated from this claim. Only 9 press releases of the companies in the pharmaceutical industry were intended for the media, which is less than ¼. The remainder of the examined press reports, a total of 31, was intended for the general public. As the pharmaceutical industry often needs to inform in a wider context, its press releases are intended for the general public, which can be considered as a specificity of the pharmaceutical industry.

Table 3: Recipient of the press release

Recipient of the press release	Count
Medium	9
Public	31
Suppliers	0
Other	0
Total	40

3.4 Presence of visual components in the press release

The press release may be accompanied by photographic material related to the content of the press release [3]. The surveyed press releases contained photographic elements in only 12 cases, i.e. the remaining 28 press releases were without visual elements. These 28 reports were more focused on the content than on the visual aspect because in most cases they dealt with a message tied to human health. This very fact could be considered a specificity of pharmaceutical companies.

Table 4: Presence of visual components in the press release

Presence of visual components	Count
Yes	12
No	28
Total	40

4. Conclusion

In conclusion, we would like to summarize the results of our research by answering the formulated research question.

Based on our results we conclude that the form of marketing communication via the press releases issued by the companies in the pharmaceutical industry, which can be classed as public relations [8] within marketing communication, most commonly included the releases with statements of the company to a particular situation. This result is also supported by the fact that the public relations tools seek to modify or influence the public attitudes to the relevant event [9]. In terms of length, the examined releases were above the normal range because they often contained more than 3,600 characters, which is more than two A4 pages. The companies most often intend their their releases for the general public, as they are often connected with the issues of human health. Unlike regular press releases, the press releases in the pharmaceutical industry do not contain visual components in the form of photographs.

We believe that the results achieved by us in this field are beneficial, informative and inspiring because no similar research has been conducted in this area of interest.

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AGILE TRANSFORMATON IN COOPERATIONS

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Abstract: *The style of leadership can have a significant impact on the success of an organization. Well-managed employees are generally satisfied, motivated and committed. This again has a positive effect on customer satisfaction. Leadership skills are an important resource for the growth of companies and maintaining a motivated workforce. An agile form of leadership will become increasingly important in the future and of course for developing and implementing agile way of working to drive the necessary change process within a company. In today's complex world there is a lot of information about companies, projects and effective ways of working. In the fullness it is difficult to choose a suitable theory. An agile way of working should always be implemented and accompanied within the framework of a change process. In the following paper I would like to describe the main points of theory.*

Keywords: *Agile Project management, Leadership, Change Management, Organizational Culture*

1. Introduction

The world is getting faster and more complex, and traditional practices need to be complemented with newer methods to be able to compete. Shifting of economic forces, accelerated urbanization, technological breakthroughs present today's companies with unprecedented challenges. The increasing speed at which markets, products, technologies, and subsequently also business models change, means that a company's ability to change becomes a critical success factor. While at the beginning of the last century radio or black-and-white TV viewing still required several decades for mass distribution, the time from invention to mass success for products and technologies of recent decades, e.g. for the Internet or the iPhone, dramatically shortened to just a few years. A constantly changing market situation and the trend towards digitization demand companies a high degree of flexibility to continuously adapt and optimize their strategy and its implementation.

1.1 Agile transformation

The agility model developed since the 1990s and is a collection of elements of various organizational theory approaches and contains a large number of organizational concepts that have been continuously expanded and changed. It would be beyond the scope of the present paper to list the theories and concepts that gave the concept of agility a fundamental character.

Agility model is a collection of elements of various organizational theory approaches and contains a large number of organizational concepts that have been continuously expanded and changed.

Agility is not a concept that emerged out of practice and subsequently became a subject of research in economics; rather, it is a draft that was originally developed as a theoretical solution to solve the problem of economic stagnation. The required level of flexibility and adaptability is not enough to transform only a business unit. Rather a company-wide agile transformation must ensure that all business units, from the definition of a business strategy to operational implementation work agile. Leader needs a lot of courage and foresight to start a change early enough. A change that questions the existing processes and deals with new business models on the basis of the clear customer focus, the focus on customer needs, in order to complement the current core business and thus to remain successful in the medium and long term.

In addition, leadership means not only limiting oneself to the technical-content-related topics but initiating the necessary cultural change with a changed mindset and being open to the new developments that arise.

1.2 Agile Transformation in companies

Agility is characteristic for a living system to meet constantly changing market conditions. Organization becomes a living organism. The continues improvement process is an important aspect. Characteristics of such lived agility are customer orientation and employee orientation, agility, ability to react and change and resilience. This is primarily about a changed mindset. The creation and permitting of (free) spaces, possibilities of self-controlled working with reflection and learning loops are necessary.

Agile working is more common in projects but not explicit in the hole enterprise. For this reason, there are existing hierarchical organizational structures und agile project structures side by side. This can lead to difficulties.
If you look in the current literature for the definition of the term "agility", it quickly becomes clear that there is no "universal" definition. The term is always defined somewhat differently.

The implementation of a new development is usually set up in a project. The project is initially in the rough definition phase. The knowledge of the product and its requirements increases during the project implementation, so the product always needs a change. At the end of the project, the product due to the changed requirements changes and during the project implementation new ideas arise that initially were not included in the project definition (Boris Gloger, 2017, p.20).

For these reason at the end of a project a product is created that may not meet the initial needs of the customer. It is not possible completely to reschedule a new product in the project framework and therefore also consider all risks. That's why the agile approach to projects is so successful. For this reason, the results must be presented and released to the stakeholders at shorter intervals. (Boris Gloger, 2017, p. 21)

Despite many benefits, there is resistance in organizations. The resistance is not explicitly directed to processes, methods or architecture, but to the changed values and norms of the organization.

In the present-day employees increasingly expect independence and responsibility. Employees are supposed to make their own decisions but companies especially corporations are still hierarchical and thus they are in conflict with the demands placed on employees. The projects are also hierarchical, and the project leader is not independent in his decisions and has to partially fight for resources. (Boris Gloger, 2017, p. 192)

1.3 Changed Management Process
In the classical world, the organizational structure is practiced and lived. There is a clear, transparent hierarchy and normally each employee knows who to report to and where he is placed. Thus, there is a clear allocation that provides the employee with security and gives the executive power and authority.
In the agile world, however, the uncertainty surrounding the corporate structure is growing. Because Agile is predominantly integrated into a classic organizational structure on the one hand, there is the classic organizational structure, on the other hand, there is the agile world.

As the processes change and the structure changes, this has a direct impact on the company's executives and employees. They need to take on new roles as part of the change process, learn new skills to successfully perform these roles, change their ways of working and their mindset.

The company, as an overall construct that provides the terms and conditions (such as scheduling of working time arrangements, premises, compensation, etc.) within which the employees act, must adapt any framework conditions to enable agile work in the first place. Framework conditions are related to enabling agile processes, structures and values.

The adaptation of personal and management tools is necessary, but not sufficient. Any framework conditions must not only be more important on paper, they must also be lived and actively implemented. In this context, the manager plays a central role in establishing the agile mindset in the company, consistently implementing agile work and counteracting employee resistance from the outset.

That role understanding of the leader changes in the agile context and thus also the understanding of leadership. The role of the agile manager not only brings with it changed responsibilities - the competencies associated with these new responsibilities are also changing.

Not every executive carries the change process from classic to agile with pleasure from the beginning. Resistance and anxiety occur in every change process, at all hierarchical levels. At best, however, resistance should be viewed as positive, fears should be taken seriously. Because, through these two aspects, it can be seen that the executives actively deal with their working environment as well as with their own role.

A classic approach for the employees of the agile mindset is to involve the employees in the agile change process. Participation can, for example, happen because individual employees are members of the change team. In any case, transparent communication is essential in order to give employees security in dealing with agility.

- The employees are not informed transparently about the change process. The employees notice that something is going on
- Employees do not want to support the change process because they see negative consequences for themselves
- The employees don´t know or understand (due to lack of communication) the background, because sense or the goal of the change process is not transparent.
- Employees have no confidence in management or management and do not believe what they are told about the change process and its goals and actions.

It requires a change process to implement agile thinking and acting in a company. Not only among employees, but also in middle management. The practice has shown that managers of different companies struggle at the beginning and it takes some time until the agile approach is understood and implemented (Boris Gloger, 2017, p. 119).

Every new topic has to be made public for the time being, so marketing is essential for agile projects. It is necessary to define communication channels through which a notice can be made. Exchange platforms should also be firmly defined where training and exchange can take place. The announcement and training prepare the way for agile knowledge.

For every idea you need like-minded people. People have to be convinced by the idea. Behind the new way of working are usually people who continue to drive the topic and spread, so that the procedure has a success. (Boris, Gloger, 2017, p. 123)

1.4 Role of executives in agile development
Through the decades in the free economy, managers have developed a certain behavior and through the fast pace and abundance of information, they focus on filtering the information. (Boris Gloger, 2017, p. 26).

In practice project managers and the employees do not have one project rather several projects and all of which have the same priority and therefore are in constant competition with each other. Due to the large volume of work, it is not always clear which requirements prevail in the project and which requirements the employees have. The danger of splattering is very high. Thus, the desire for transparency arises in order to gain clarity and thus control processes. Most time invest is in monitoring and auditing (Boris Gloger, 2017, p. 27).

Leadership is a transtemporal phenomenon that exists in all organisations. The philosophers and also leaders developed different models. Neuberger mean that there are 30 to 40 different leadership theories and they are more or less connected with each other. The theories do not replace each other but exist side by side (see Mahlmann 2011, p. 11). Despite the large number of leadership theories there was no comprehensive theory (Wunderer 2011, p. 273). In Germany and in Europe the analysis of leadership and leadership styles is a common topic. Leadership as a subject is getting more and more important in relation to current challenges of digitalization and globalization.

The time to create transparency, supervision and control can be spared by relying on trust and establishing a culture based on mutual trust. The costs can be reduced. Ostensibly, it is important to recognize the purpose of the work, to show employees a goal to which they can meaningfully work.

Valency and standards must be clearly defined in an organization. It not only contributes to effective work but also to employee motivation (Boris Gloger, 2017, p. 192).

1.5 Culture
Results of the GLOBE Study on Living and Desired Leadership Styles in Germany gives one of the most comprehensive studies on leadership in a cultural context is the GLOBE study (Chhokar, Brodbeck, House, 2007a). It captures nine cultural dimensions in society and organizations as well as six dimensions of leadership styles in business organizations. The study was conducted before the turn of the millennium in 61 countries from 25 societies on all continents and includes both qualitative and quantitative methods (Chhokar, Brodbeck & House, 2007b, p.6). The GLOBE study is important for the study research, because firstly it not only asks about the actual state ("as is") of cultural practices but also the "should be" state and thus the future orientation of a culture and organisazions (Brodbeck & Frese, 2007, p.160).

Secondly, the GLOBE study contains both regionspecific evaluations, such as the german-speaking cluster Germany-Austria-Switzerland, as well as country-specific evalua-tions for Germany. In this sense, the GLOBE findings for the research area of the present study may serve as a guide to whether cultural practices, which we generally under-stand by the concept of wisdom as outlined above, are sought in the understanding of leadership.

For Germany, Brodbeck and Frese (2007) conducted the study in the second half of the 1990s after German reunification. 471 middle management managers took part in the questionnaire study on cultural practices and leadership styles.The middle management was classified as having at least two management levels above and two levels below (Chhokar, Brodbeck & House, 2007, p.20). As in all other countries of the GLOBE study, three representative industries were selected, namely food, finance, telecom. In the GLOBE study, nine cultural dimensions were recorded for the social level. For corporate leadership styles, six classes (second-order factors) of leadership characteristics were identified with respective sub-factors (Chhokar, Brodbeck & House, 2007, p.23). In the six dimensions character traits, skills and abilities are summarized. Leaders have judged these dimensions to be whether they are characteristic of an "outstanding leader" or, on the contrary, rather not (Brodbeck, Chhokar & House, 2007, p.1036f.).

The six dimensions summarize the characteristics, skills and abilities. These dimensions were assessed by executives according to whether they are a characteristic of an "out-standing leader" or, on the contrary, rather not (Brodbeck, Chhokar & House, 2007, p.1036f.). The dimensions are: charismatic / value based, team oriented, self-protective, participative, humanitarian / human oriented, autonomous. The dimension "autonomous" refers to an independent, individualistic style of leadership. Such a dimension was not listed in the previous literature and was first introduced in the GLOBE study.

The prevailing leadership style of the German-speaking cluster is characterized by a high level of participatory leadership, in combination with a charismatic-based and team-oriented leadership style. In addition, there is a high degree of autonomy as well as relatively low values for social orientation, both in the actual and in the target.

Two of the mentioned dimensions, namely charismatic value-based leadership and team-oriented leadership, are assessed positively across cultures for all country clusters. The German leadership culture is characterized by some deviations: on the one hand, this is the combination of a high level of participative orientation and, at the same time, a high level of autonomy of the leader. Since the

"Autonomous" scale was explicitly introduced worldwide for the first time in a leadership study, the high level of expression among German executives is a significant USP of German leadership.

This autonomy already leads within the German-speaking cluster (Germany, Austria and German-speaking Switzerland) to a potentially negative perception of German executives. These would e.g. tended to perceive in Switzerland as too direct and confrontational. A property that is called "bossy", is authoritarian (Brodbeck, Chhokar & House, 2007, p.1046). Specific to the German leadership style is also the high task and performance orientation (Brodbeck, Chhokar & House, 2007, p.1052) with emphasis on competence. Within the dimension charismatic value-based, "performance orientation", the performance orientation, comes first (Brodbeck and Frese, 2007, p.174).

2. Conclusions

We are in an age of changing market conditions, uncertainties, unpredictability due to rapid changes. The changing market conditions are currently being triggered by digital progress: New digital technologies in the workplace require an organizational transformation in order to tap the new opportunities for a market advantage.

An entire company will seldom be completely agile. This does not make sense either. It will always be about a good mix, a hybrid, adaptive organization. Agile collaboration is especially in demand where it comes to innovation and dealing with complexity, uncertainty and unclear requirements in the so called VUCA world (Volatility, Uncertainty, Complexity, Ambiguity). And the most efficient organization is possible to improve where stable secure processes are concerned. At the beginning there is the revolution of thought: a new image of mankind must be internalized. This is followed by the evolution of action in many small cycles of change and feedback through the system. Affected is the whole system with its leadership principles, principles of achievement creation, performance contracts, values and culture.

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SIGNIFICANCE OF DATA SELECTION FOR RISK MANAGEMENT OF STRATEGIC PROCUREMENT

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Abstract: Data selection is the base for any analysis. Economic research neglects the fact that consciously or unconsciously the selection of date always has an influence on its results. In order to avoid this human-based source for distorted perception more emphasize should be laid on data selection. Both risk management and purchasing management do not really touch upon this matter. There is no strong link between these two fields of economic research. Practitioners find an amazing variety of tools and recommendations for action. What is missing is a clear support based on the size of a company, and the sector of economy in which they are acting. The contribution which is sketched below shows an approach of how to cope with these shortcomings.

Keywords: risk management, master data, data selection, strategic procurement.

1. Introduction

No quantitative analysis is really quantitative! All data which are analyzed are chosen in a qualitative way. This always means a source for distorted perception. Derived from the findings of decision making, no analysis can be made without this human-based bias. Surprisingly, this source of bias is neglected in the research of business administration. Neither the research of risk management nor the research of procurement management focus on the challenge that comes along with the selection of the data basis for any analysis. As the data selection has a crucial influence on the result of an analysis, there is a gap in scientific knowledge. It is one of the aims of the author to provide a recommendation for action to the practitioners.

Master data become more important. They are the basis for Industry 4.0, data mining, supply chain risk management and global sourcing. Both procurement and risk management have been well researched. Risk management was developed in the finance world. So it is no surprise that up to now, the focus of risk management is still on financial topics. Procurement on the other hand has its focus on supplier management.

What practitioners miss in their day-to-day business is a link between risk management and procurement management. There is no explicit procurement risk management. Additionally, there is no consistent focus on the size of the companies. Although empirically well proven, scientific research has neglected the difference of value creation of various sectors of economy and sizes of companies. Implicitly, they focus on the conditions in large companies.

2. Risk management

Risk management is well researched since its origin in the 1950s as a financial tool [1]. Since then there has not been established a generally accepted definition of risk management. The same situation is found when looking at the process of risk management. Neither the general process nor its partial steps to perform are generally defined. On the contrary, even the same technical terms may mean different tasks to perform.

The number of partial steps to be performed vary from three to nine steps [2]. A non-definitive list of the partial steps of risk management contains tasks such as strategy building, risk analysis, consisting of identification and evaluation, accomplishment, handling, lessons learned, monitoring, reporting and controlling the risks.

A huge quantity of tools exist for each partial step of risk management [3]. What is missing are criteria how to select the best tailored tool for each company. To give an example, some criteria might be easy handling, transparency or the advantage of using already existing data from the companies ERP (enterprise resource planning) system [4]. This problem is intensified as the tools are not continuously recommended in scientific literature. Here are also contradictory statements in research. This leads to the situation that for one thing a tool is recommended, for example for risk identification of SME (small and medium sized companies). Then again it is regarded as not suitable for this type of companies. When tools are recommended for any partial step there are primarily no generally accepted references to the size of the company.

It is empirically well-documented that there is a big difference between performance of risk management in large companies or SME [5].

This suggests the need for a risk management which is adapted to the size of the company.

3. Procurement management

Procurement is grouped in operational and strategical functions. Strategy indicates the way from a current state to a desired state. Following this definition, strategic procurement means anticipating actions and situations. Operational means that the purchaser has to react on already existing challenges instead of acting in advance.

A significant part of literature concerning procurement deals with the latter, which are summed up in the so-called 4R. The "R" stands for "right" and may have more than four facets of operational activities of procurement: to make sure that the demanded goods are available in the right time, at the right price and quality, in the right quantity and sent by the right supplier and means of transport [6]. All these activities base on an already existing demand. Derived from this point of view, many practitioners still see the role of procurement to deal with these operational challenges only [7].

Literature on strategic procurement concentrates on supplier management. They stress the significance of procurement market analysis, selection of suppliers, supplier evaluation and supplier development. Risk management is mainly considered as being part of these operational and strategic tasks, and not as an autonomous task of procurement management. Another shortcoming derives from the implicit focus of most research and literature on large companies. Same as in risk management, the divergent challenges of SME in procurement are widely neglected.

All over Europe and worldwide, SME are often called the "backbone" of the national economy. Consequently, there should be a specific SME research. For instance, in Germany these family-owned companies are often exceedingly innovative in their niche and global market leader, so called "hidden champions" [8]. Despite their importance for the economy, the scientific research still focusses on large companies [9].

4. Mass data selection

As already stated, there is a huge variety of tools for the partial steps of risk management. One of them is analysis. In procurement analyses are often performed in order to identify and evaluate risks.

The result of any analysis depends significantly on the data selected. An example is a sales statistic, which is used as the basis for a purchasing analysis. It makes a big difference if extraordinary sales such as promotional activities are eliminated from the data or not. If not, the result bases on the presumption that – even without the promotional activity – the sales will be the same as before. This example shows that it is beneficial to take several preparatory considerations and decisions into account before choosing the master data for any analysis. In a nutshell, this effort offers the opportunity for a more purposeful result of any analysis.

Paul Slovic, a fellow campaigner of Daniel Kahneman, proclaimed that any definition what is considered as a risk is an exercise in power [10]. Interpreting this statement wider than only upon risk, each choice of data base means an exercise in power as well.

4.1 Sectors of economy

Economy is often divided into these three sectors: industrial enterprises, trading companies and service providers. These three sectors can clearly be distinguished by the way of how they create their value. Therefore, it makes sense to take this into consideration when selecting data for an analysis.

Below, the differences of the three economic sectors are briefly sketched. Industrial enterprises create their value by manufacturing products by using goods which these companies do not produce by themselves. An example are automotive manufacturers, who buy raw material or semi-finished products and create their value by developing and assembling vehicles.

Trading companies create their value by buying goods which they do not significantly work upon. In general, it is their business model to buy big volumes and to provide smaller quantities to consumers. An example are supermarkets. They buy big quantities, while end consumers buy their daily needs from them.

Service providers create their value clearly divergently to the other sectors. Their goods cannot be stored, and mostly not generated without the cooperation of the customer. One further difference it that the result can only be evaluated after the service has been provided. An example are hair dressers. The customer must sit calmly. Otherwise the result of the service cannot be optimal. The result is evaluated after the service is completed. Even the same result can be evaluated differently.

That sketch states that data selection for risk management of procurement for these three sectors must be adapted to their different ways of value creation.

The industrial enterprises face the most complex situation of these three sections. They transform semi-finished products, raw materials or other purchased articles into the goods they sell to their customers. So they do not only have to focus on the articles they buy from other companies. They also have to consider the impact on their business, if for example a raw material is not available. Unlike for trading companies, the impact is not as plain. One missing raw material – no matter what its price or order volume is – may have a fatal impact on a company. If it is vital to produce a core sales product, the result might mean the loss of an important customer, or even worse [11].

Therefore the focus in chapters 4.2. and 4.3 will be on the risk management of industrial enterprises.

4.2 Framework

Before executing the selection of the mass data for an analysis, the framework should be considered. The framework should answer questions of how the selection should be performed. In order not to exceed the limits of this publication, it cannot be gone into details. Hence some most important details to be considered.

First, is the data selection only be done by one person or department, or by a crossfunctional team consisting of members of various departments? In industrial enterprises the impact of one missing raw material on the customers' satisfaction is only known by the sales department. The missing raw material makes the production impossible. Which impact this would have to sales, is not known by the purchasers. Therefore, it makes sense that not only the purchasing department selects and evaluates the data. This simple example emphasizes the complexity of risk management in industrial enterprises. Crossfunctional teams are more appropriate to cope with this complexity than individual departments.

Next, there should be rules for the selection and evaluation of the data. An example is the situation that the purchasers and sales staff do not achieve to agree what data are best chosen for an analysis. It should be clear how to react then, and how to escalate in such a situation.

Also a time frame should be set. This contains decisions how often an analysis should be done, and how often it should be repeated for what purpose.

To ensure a regular performance, it should be decided who is responsible for the implementation and organization of the analyses.

These few examples show how important a framework is for the risk management process in purchasing. An operational and organizational structure provides a guideline and grants continuity.

4.3 Choice of Data

How to select master data is only superficially mentioned in literature [12]. If authors refer to this task they advise that data should be selected carefully. If there is some further recommendation for action, authors add that relevant data should be selected carefully [13]. Data are the basis and the core of any analysis. Therefore research would be necessary to provide further recommendations for action, recommendations which should rest upon scientific basis. It is the aim of the author's dissertation thesis to fill this gap in scientific knowledge and practitioners doing.

In the following, several examples of recommendations for action are listed. They have been formulated in order to improve the analyses for strategic procurement's risk management:

▪ What do we consider as a risk?

This question sounds trifling, but it is indeed vital. Especially SME, whose resources are limited, have to consider carefully what risk should be handled. It makes sense to focus on the risks that would lead to the worst impact on the company. This does not necessarily have to be the goods with the biggest purchase value or the highest purchase price. If these goods can easily be bought from various suppliers there might be no risk. On the contrary, a cheap raw material with only a small purchase quantity might lead to a standstill of the whole production. Repeated situations in the automotive industry stress the relevance of these so called "C-products". This makes clear why it is not sufficient in risk management of strategic purchasing to use an ABC-analysis only. In scientific and practitioners literature, the ABC-analysis is the tool which is mostly recommended. A tool to mitigate this shortcoming could be the IBR-analysis.

▪ Which products should be analyzed?

Products might be existing or new ones. Should the life cycle of products be considered, and if yes, how? New items might rise in sales, while existing ones might decrease. A relaunch of existing products means a variation. If variations of one product exist, it is decisive if they are considered as one product, or looked upon independently. It influences the result significantly if single products or product groups are analyzed. Will be taken into consideration that some products are influenced by others? An example is toothpaste, which is of no use if there are no tooth brushes. Will promotional activities or a seasonal influence be taken into account or excepted? Should they be excepted, how is their effect evaluated.

These considerations could be prolonged beyond the limits of this publication. In favor of another aspect they will not be deepened.

The following aspect must be mentioned in this context as it goes beyond the former reflections. Analyses are considered as a quantitative tool. In itself, this definition is correct as analyses base on figures. What is not considered is the substantial qualitative influence of the data selection.

Daniel Kahneman pointed out that there could not be an "objective" selection at all. For his findings concerning decision making he received the Nobel Prize for Economics in 2002 [14].

To cope with this fact a crossfunctional team is more effective. A group has obviously a greater realm of risk perception as one single person could have. This mitigates the distorted perception of risk.

5. Conclusions

Master data selection is vital for the result of any analysis. In times of global sourcing, supply chain management, more and more practitioners recognize the importance of consistent master data. Nonetheless, in scientific literature and teaching this topic only plays a subordinate role up to now. Little emphasize was put on the selection of data.

This lack should be filled in order to cope with the requirements of industry 4.0, data mining and agile production. Practitioners in search of risk management tools to be implemented in their companies have to make their own selection, which process might fit best for their conditions. What is missing are recommendations for action tailored for SME how to cope with their risk management of strategic purchasing management.

The author will fill this gap with her dissertation thesis, providing recommendations for action especially for small and mid-sized German industrial enterprises.

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THE IMPORTANCE OF ANALYSIS OF EXTERNAL BUSINESS ENVIRONMENT FOR ITS EFFECTIVE MANAGEMENT

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Abstract: *Every company is realized in a certain environment from which it draws resources and for which it transmits the results of its activities. Therefore, the business environment is a condition of its existence. We know the internal and external environment of the company. The company's internal environment determines the quality of its internal processes. Recently, the importance of the company's external environment has become increasingly important, especially given the existing competition. Therefore, it is vitally important for the management of each company to uncover all the factors that may affect its existence and prosperity and may have a strong impact on its market position.*

Keywords: *competition, customer, threats and opportunities of the environment*

1. Introduction

The importance of managers' work lies in the fact that they understand the company as a dynamic entity that is influenced by internal and external factors. Anticipating and influencing their impact allows them to respond adequately to the expected facts and thus make appropriate decisions. The aim of every business entity is to get a position in the industry in order to be able to cope with competitive constraints as much as possible, or to turn their actions to their advantage. Knowing the causes of competitive forces will reveal its weaknesses and strengths to the company and will force it to reconsider its market position. This knowledge also highlights areas where strategic change has the greatest effect and illuminates places where industry trends are of the utmost importance.

2. Analysis of external business environment

New companies on the market, the rivalry of current competition, the danger of substitution products, and customers and suppliers in favour of negotiation emphasize the fact that competition in the industry goes far beyond borders of the company itself. Together, they determine the strength of industry competition and profitability. Even a dominant company in the market and in a sector where it is not threatened by new companies may have low returns because it faces a stronger producer of cheaper substitutes. Even in the absence of substitution products and blocking new entrants, intense competition between current competitions will limit potential revenue.

Companies entering the industry for the first time are increasing its capacity. Their aim is to gain market share. Another danger is the related demand for resources. All of this can lead to price reductions or cost increases.

The danger comes not only from the outside, but also rivalry between existing competitions in the industry is typical. Every competitor is constantly trying to get a better position. They use different methods, such as price competition, advertising campaigns, improved customer service or guarantees.

Competitive struggle between companies is not only in the industry. When we look at it on a broader scale, we must also take into consideration the companies of other industries that produce alternate products - substitutes.

Customers are other competitors in the industry. Their priority is to buy at the lowest price but at the same time in higher quality or better service. By doing so, they put competitors against each other. All these activities reduce profitability in individual sectors. The impact of each group of industry customers depends on a number of features. The volume of sales in the sector determines the relative importance of their purchases in the sector.

In addition to consumers, the threat to industry participants is also suppliers who increase prices or reduce the quality of purchased goods and services. Influencing suppliers can thus increase their own prices in an industry that is not able to resist pressures and thus affect the company's profitability.

2.1 Competition analysis

"Competitiveness is one of the pillar requirements in the constantly changing market environment of the present time, and is therefore considered one of the company's core characteristics. The basic feature of the market economy is the freedom of a customer to decide not only about what product he buys, but also from whom. This leads to the competition of potential suppliers for the customer. It can be said about a supplier whose customer has chosen to be more competitive than other competitors. Every company should try to create such competitive advantages that increase the competitiveness of the products offered. The competitiveness of the products is determined mainly by their quality and the position of the company in the given market is determined by the customer's interest in the offered products." [3]

The purpose of monitoring competition is to bring information about the current and potential rivalry between companies that provide the same product, but also about the level of risk to these companies, because they produce similar ways of meeting a given need. A company should continually analyse its products or services, the price level, distribution channels and the manner and effectiveness of promotion with competitors' products. By doing so, it increases the hope to reveal the future advantages or disadvantages of today's work and can better set up an adequate competitive strategy.

At first glance, identifying a competitor may seem like a simple thing. However, real and potential competitors must look for a much wider range. Here, companies must not focus only on the main competitors operating in the closest neighbourhood. More often, the company is at risk of latent than ordinary competitors. The closest competitors include companies that target the same market and use the same strategy. This group of companies is called a strategic group. The most intense competitive fight takes place within one strategic group. However, there is also a rivalry between groups, especially in the following cases:

- Some strategic groups may target the same customer groups, or
- Customers do not see great differences in the offer, or
- Each group may want to expand its market spectrum, especially when companies are essentially equal in size and strength, and mobility barriers between groups are low.

The basic stimulus of any competitor is that he wants to achieve maximum net profit. However, there are also differences. A company may focus on short-term achievement of above-average earnings, or on achieving long-term lower earnings. It may not always be a maximum profit; the company will set a target profit and is satisfied with its achievement, even if it could achieve higher profits, e.g. using a different strategy. Another approach is that each competitor has several goals to which he attaches different weight. In this case, we need to focus on the relative weight the competitor attaches to normal profitability, market share, cash flow, leading technologies, service levels, and so on. Knowing a set of competing goals and their weights will allow us to see if a competitor is satisfied with the existing financial results, how he will respond to different types of competitive attack and so on. The question is whether the company is able to implement its strategy and achieve its goals. Success depends on the resources and capabilities of the competition. The company must therefore identify the strengths and weaknesses of its competitors. The initial step must be to collect the most up-to-date information about the activities of the competitors, especially about their sales, market share, profit, return on investment, money reversal, new investments and capacity utilization. It is possible to predict the competitiveness of a company according to competitiveness factors. "Not all factors of competitiveness are objective and often not even measurable but subjectively perceived through confronting customers with their demands, values, or just moods. In a broader sense, competitiveness is a superb position for:

- Product and portfolio of offerings that should overlap with the needs and expectations of the customer as much as possible.
- Company behaviour towards customers, especially in the level and quality of communication skills.
- Reflecting the time dimension of business (speed of response to customer requirements, speed of execution of processes and changes).
- The aggregate impact of the organization, which is partly determined by the relatively fixed nature of the business entity, but partly by the image.
- In relation to large customers, there are other criteria of competitiveness such as capital strength and financial capacity to participate in competitive business conditions; applying quality management systems, labour productivity, etc.
- In some cases, competitiveness is also complemented by belonging to a region equipped with adequate infrastructure, regulatory environment and other region's macroeconomic criteria.
- The recent development of globalization creates a new factor of competitiveness - the ability to engage in networks, the ability to create strategic alliances.

The uniqueness of any of these factors creates a competitive advantage appreciated by customers and the resulting motivation to establish a business relationship." [1]

Other competitiveness factors include performance, employee motivation, logistics, quality, cost reduction, innovation, advertising, information technology, employee training, etc.

Getting some information about a competing company is very difficult nowadays. But on the other hand, any information will help improve the prediction and weakness of competition. Every information helps in deciding who and how to attack. Most of the information about its competitors is from secondary sources, from personal experience and from hearing. Further information can be obtained through a marketing survey between customers, suppliers and traders. When looking for the weaknesses and strengths of our competitors, we need to find out about their business and market ideas. Some companies believe that they produce the best quality products in the industry, even if it is no longer true. If a competitor acts on the basis of a misconception, it means an advantage to us. Finally, it is important to estimate the competitor's likely reactions. The aforementioned objectives, advantages and weaknesses predetermine the competitor's response to the activities of another company. At this stage, corporate philosophy, internal culture and some internal beliefs must also be analysed. A competitor needs to know his or her thought potential to estimate how he will act and react. According to the reaction, we know a competitor who:

- does not respond quickly and strongly to competition,
- responds only to certain forms of attack and others do not notice
- responds quickly and strongly to any market threat
- does not have a predictable reaction pattern.

2.2 Customer analysis

Knowing the customer will help the company to navigate the market needs and provide what will be successful on the market. Often, the customer is in a time constraint, so he demands his purchase be quick and of high quality. He behaves rationally, which means that he ceases to be loyal to a particular brand. With substitutable products, he chooses cheaper, unbranded products with adequate quality. Customer does not place emphasis on the manufacturer's brand, buys merchant or distributor brand. He prefers to buy where he is offered a choice, quantity, price range, additional services.

Today's market is too fragmented. Significant financial resources are needed to identify a particular market segment. Undercapitalized companies do not have sufficient funds to research the customer. Nevertheless, it is extremely important to identify the right market segment and offer the customer an appropriate range of products. It is necessary to focus on the criterion of the customer share, which means what percentage of the customer's expenses the company will obtain. The quality of these customers is equally important. Customer loyalty and its effect on the company are evaluated. A regular customer brings the company a higher profit than a new customer. The quality of the services provided with the product will be crucial to obtaining a regular customer.

Rationality, emotionality and habit play the most important role in customer behaviour and decision-making.

Modern companies focus their strategy on the customer and customize their offerings. Customer information, their attitudes and wishes are a common starting point for successful business and prosperity around the world. In order for a company to have such information available, it must know where, when, and how to obtain it. They must know the basics of market research.

3. Threats and opportunities of the environment

One of the two main goals why a company explores the environment is to recognize new opportunities. "A marketing opportunity is represented by an attractive area in which a company, through marketing activities, gains competitive advantage" [2]. When evaluating a marketing opportunity, consideration must be given to the attractiveness and likelihood of success that can be expected at every opportunity of a company. The likelihood of success depends mainly on the business strength of the company, which should be greater than that of competitors.

The second of the goals why a company analyses the environment is to get information about its potential threat.

"The threat to a company is a challenge created by an unfavourable trend that could lead to business disruption in the absence of dedicated marketing activities" [2]. The identified company threats must be processed and classified according to their severity and probability of occurrence. The most serious threats are those that can seriously injure the company and, moreover, have a high probability of occurrence. For this reason, too, an action plan needs to be developed and to be taken in the event of a threat. If it is a low-probability threat, it can be ignored.

A company is always part of a system, and therefore it is important for its management to know all the external aspects that may affect it and which are both necessary to maintain or even increase its competitive ability.

4. Conclusion

The changing economic environment creates new conditions in all areas of life. It is not always easy to understand what is happening in the surrounding environment and to estimate how the environment will evolve. The best ones understand the changes and at the same time they can use them for their own benefit. However, the success or failure is not only determined by the external environment with its influence, but mainly by the way of responding to these changes. The quality of information and its usability is becoming increasingly important in enhancing the competitiveness of a company. The average lifespan of companies is declining, and over time, even the biggest companies may find themselves in a difficult situation when they fail.

Changing an external environment is a factor that can make a situation of a company much more complicate, but it is not the only factor. The way the company reacts or does not respond to these changes is equally important. The success or failure of the company is therefore decided partly by changes and impacts of the environment and partly by the result of the work of the people working in the company. Every company wants to grow, but it does not always succeed. Ensuring the company's prosperity and success is one of the most important tasks of company management.

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REPUTATION IN HIGHER EDUCATION

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Abstract: *Reputation and reputation management represents an essential part of existence for enterprises, universities and organizations which are strongly interested in organization quality increase. This paper deals with the importance of reputation and reputation management for the university. Realized survey was focused on reputation evaluation with the use of Net Promoter Score method. This method aimed at positive or negative students reviews of university. This method points out whether the students are willing to recommend the university to potential students and to the public. This reflects the pride level, trust level, experience level, faxour level and the intensity of motivation and faith in university that students study at. Conclusion contains recommendations, methods and tools through which the university can positively influence its reputation also thanks motivations of students and their positive reviews.*

Keywords: *Reputation, Reputation management, University*

1. Introduction

Every human being, enterprise, product and brand must gain trust of its environs to be able 'to sell' themselves. Trust is an important pillar of business activities but also essential upright of functioning of organizations [13]. Several authors agree on the statement that trust means believe in fulfilling promises and a certain degree of openness in human relationships as well as a certain degree of certainty to subject or object based on development of circumstances which have a positive effect on interested parties [9, 11]. If we can trust someone, communication and relationship is mutual, trust means an assumption of creating reputation of a subject or object.

A renown helps to choose a subject, a provider of a product or services, etc. in decision making between competing subjects [21]. All interested parties have a measurable impact on a communication area in which they are acting [7]. Subjects and objects should care about their reputation because it can influence their overall activity, achieved aims as well as it can affect interested parties influencing subject or object [28].

It is very important do appropriately define a reputation. Barnett and Pollock state following: „Reputation is a prediction of future behaviors that is based on an assessment of how past behaviors meet the role expectations that follow occupying a particular social status" [6]. In a business sphere, the reputation means the most important property of an enterprise and therefore an intangible asset. Not just in business, it is necessary to take care of the reputation, as it was mentioned, because it is easy to lose it or change it to negative one [20, 12]. If speaking more deeply about taking care of the reputation, a reputation management must be considered as well. In a comprehensive view, it is a long-term process of forming a relationship with interested parties and a process of depiction of a subject and an object in the best possible light, most often based on their real positive

characteristics. Additionally, the term reputation is often connected with a brand and branding however these terms are used in other fields. The reputation and its influence is possible to perceive in the field of motivation of employees or even students. This paper is because of this fact aimed on effect of reputation on universities students. It examines and discusses information and knowledge about supporting activities to empower reputation and increasing quality of universities, about feeling, expectations etc., which influence the individuals and their motivation to study at a university.

2. Reputation, reputation management and motivation of students

Reputation is closely related to total existential and competitive strategy of a subject and object and its management must be coordinated not just by an overall strategy but also by a marketing strategy [16]. Reputation means a value which gives a guarantee about the quality of an object or a subject to all interested parties. Reputation is therefore a rating and an impression of interested parties, which they get from an enterprise and, decides on their further behavior. Good reputation can provide an increasing of performance and can help to withstand risks [31, 10, 5].

To build the positive reputation is not possible during one day. Reputation is a long-term process which might take several years. In process of creating of reputation, it is necessary to know how to retrieve and use information, but also how to use experience obtained from mutual meetings and communication with interested parties and environs. It is necessary to heed and take care of reputation since sometimes the single wrong step can ruin the whole effort. Research results in the business say that to 23 complains there are 10,000 adversaries [29].

Nowadays, the clear majority of people are using social media on daily bases. This is a reason for truthfulness and

sincerity because the single minor lie might affect masses of people by a simple word of mouth and sharing as stories on the social media. The subject and the object might lose its positive reputation and vice versa, by negative feedback it can gain negative reputation. This type of reputation is hard to retrieve. Even though the fact that the reputation is intangible, research results show its importance because it increases the value of the subject or the object and by that provides an advantage in a competitive battle [19].

In a case we deal with the reputation, it is not just reputation of persons or enterprises, but also the one of educational institutions. Reputation means information which is after a perception by addressees transformed into opinion about a university [15]. Reputation of educational institution is many times based mainly on the opinions of individuals, thus students and employees. These opinions arose from own experiences and information acquired from the educational institution. Opinions of individuals might also arise from own experiences, but also by retrieved information from wide environs and last but least from the educational institution itself, in case that the institution uses supportive measures and actions to improve its reputation.

All organizations are interested in ways for achieving high performance of people. In case of students might be this performance defined as an interest in learning and achieving excellent study results. Therefore, it is needed to create and improve motivation process and environment that can help individual students to achieve results corresponding with expectations of the university management [3]. In these intentions, Majtán [23] understands motivation as crucial presumption of success and effective performance of people as well as students of a university.

A studying process (especially choosing a university) is for every single student effected by other factors, which have to be necessarily taken into consideration for creating the reputation. These factors include for example a current education of students, nature of the learning environment, student epistemological beliefs, critical thinking of students and academic success levels and grades [2, 26, 17, 14]. During building the university reputation, it is needed to consider this process comprehensively and realize all impacts that influence the motivation of students towards the university. Despite of mostly positive impacts of an academic environment (from the side of teachers, supporting personal, classmates, etc.), motivation of students is sometimes disrupted [8]. Therefore, it is necessary to catch up all factors which affect the motivation of students; all of these factors must be managed effectively not to negatively affect the reputation of the university.

Motivation of students, which is needed to achieve the success relates to their choice of further employment, life goals, rate of stress, and to the reputation of university [1, 4, 27, 18, 22]. This is reason why every university for its

success needs to tightly connect its effort in the field of reputation and the motivation of students since they are affecting each other. If the motivation of students is decreasing, then the reputation of university decreases by spreading this information, and thus decreases future motivation of potential students. Even the research of a management and development of human potential conducted in Slovakia, into which were involved more than 200 organizations, shows that more than 52% of respondents said that their motivation is affected by reputation of the organization in a significant way.

To achieve sharing a renown of the university by students (which brings a big responsibility), it is necessary to build the trust which should not be disrupted during the length of their study. The way of improving of the responsibility as well as the motivation is by expanding boundaries of the confidence. This confidence same as the motivation of students will be improved also by the positive and strong reputation of the university they study at.

3. Survey

For retrieve a feedback from current students, we used method of Net Promoter Score which was enhanced by two additional questions. First of added question has asked whether the university was recommended to current students by its alumni. Second added question ask current students about their first implication when they hear first time the name of university. This survey was conducted on a group of 150 students of the University of Žilina, Faculty of Management Science and Informatics in Slovakia.

Net Promoter Score is a methodology of measuring a loyalty of customers (in this case students) and the same time a method for retrieving and usage their feedback for increase the performance of enterprise (university). This method was developed by companies Satmetrix and Bain & Company and Fred Reichheld. This concept was firstly propagated by book The Ultimate Question by Reichheld and then was adopted by top managers of enterprises around the world. At the present, this method is used as a standard for measure the loyalty of customers (students). When trying to explain the matter of fact of Net Promoter Score (NPS), this one is the methodology which commits companies and employees (university and notably teaches) to responsibility in dealing with customers. This method obtained a considerable popularity thanks to its simplicity and bond to rise of enterprise. Employees on the all levels of university are aware of the importance of 'open door for students', because this leads to improvement of the university performance [24, 25].

Programs Net Promoter Score are not methods to measure the satisfaction of customers – measuring by NPS itself does not lead to success. For managing the loyalty of students and improving the reputation is needed to use received feedback from students in disciplined and targeted way to continual improvement. It must be clear commitment of management to manage the processes and systems in the correct and fast way to inform employees

and teachers to they can interact through a feedback from students by themselves and in this way to achieve better results.

Net Promoter measures performance by defining the responsibility and prioritizing the investment; has the clear impact on the further growth of a company. If the drive motor of enterprise would work perfectly with the perfect efficiency, all students would be turned into 'propagators'. In the worst-case scenario, all of students would be turned into 'critics'.

The most successful companies are working with NPS values between 50 and 80. Average enterprises in levels from 5 to 10, which means, that amount of propagators is just slightly higher than number of critics. Large amount of the companies have negative values of NPS which means that there act more critics than propagators by their attitude. These values explain why many companies are not able to generate a profitable and sustainable development. In Table 1, it is possible to see the best companies in France, Germany, the United Kingdom, and the United States.

From this data is possible to deduce that successful companies are not just reaching the extreme high score, but also the score around values of 22–32. For companies as well as universities in Slovakia do not have to consider as a negative fact when their NPS score would not hit the highest values. On the contrary, they should use lower NPS as a challenge and opportunity to focus more on reputation of their clients or students.

Table 1 Top Companies in the Country – France, Germany, United Kingdom, USA

France	NPS
Apple	54
Samsung	36
Sony	27
Virgin Mobile	23
Dell	22
Germany	**NPS**
Apple	65
ING DiBa	40
Sony	38
Panasonic	25
Nokia	25
United Kingdom	**NPS**
Apple	67
First Direct	42
Sony	39
Panasonic	34
Samsung	32
USA	**NPS**
USAA	81
Apple	78
Amazon	71
Trader´s Joe	68
Wegmans	67

We calculated value of NPS by formula: NPS = % of propagators - % of critics. All students had been asked to fill a rating scale from 0 to 10 (where 0 means 'absolutely no' and 10 'absolutely yes') based on exact question "How possible do you think is that you would recommend the Faculty of Management Science and Informatics to your friends or future students?" We divided answers of students to critics, passive ones, and propagators. Critics are students who selected answer between 0 and 6. Passive ones are respondents with the answer from 7 to 8, and propagators are students who answered from 9 to 10. The results show that the university has 29% of critics, 47% of passive ones, and 24% propagators. It means that 24% of students would recommend studying at the Faculty of Management Science and Informatics to future candidates for study. Due to low investment to propagate the University, it is very low percentage. Based on this we can determine NPS of the University to -5. This result, however, does need to be taken just as a negative because the number of critics is not significantly high. The largest group of students are passive ones (almost the half of students), how are not interesting in terms of NPS, but the University should focus on these students. These students are happy and unhappy at the same time. Therefore, it is necessary to increase their motivation and enhance it in favor of the University. Their biggest disappointment is spoiling their trust: they find out that not promises from the propagation of the University are not entirely true or there is not provided trust and friendly (partnership) approach by teachers. By this, passive ones can turn to group of critics which means a real danger for the future of University.

Our second, the additional question, was aimed to the past, to find out whether the Faculty or the University was recommended to current students by other students of the Faculty. The results are not favorable because only 35.71% of students got the recommendation to study at the Faculty. Other 64.29% did not get this recommendation. This result should be a relevant incentive/strong motive for the Faculty or the University for focusing not only on the future students but also on such of them who are currently studying at the University – it is necessary to improve their pride for studying there and share their renown. If we compare the group of propagators from the calculation of the NPS with the group had got the recommendation, we can state that the amount of students "who are really happy and proud students" is lower. This fact is for the University very negative outcome because it is trying to improve its propagation measures all the time.

Table 2 Result of research on university

NPS = -5		
Critics (0-6)	Passive (7-8)	Propagators (9-10)
29%	47%	24%
Recommendation not received		**Recommendation received**
64.29%		35.71%
Association with the name of the university		
informatics/ICT	school actions	renown at companies

The last question was aimed to implications of students when they hear the name of the University. The most often answers had been terms as informatics/ICT, school

actions, and renown at companies. We asked this question because this implication remains in the mind of students after their graduation or outside the school. This is information which is provided as first to people who are asking them about the University. We consider as very positive fact that school actions performed by the University have good impact and they create a good impression at students. It is also a great advantage that the University built renown in companies because this is one of the most important reason why they are coming to study at this University. The positive renown built at companies (i.e. potential employers of alumni) is a very strong side which should be empowered and built in the future as well. The third implications (informatics/ITC) speaks about the ability of the University to follow modern trends. Nowadays trend is to use modern information-communication technology and work in IT industry in professional live or at the free time. This trend was caught by the University and it is trying to improve the study programs on computer science, computer engineering and so on. In addition, the University is also enriching fields as the management science by modules where students can get IT skills.

4. Conclusion

Based on our research we can conclude that the University is trying to build the reputation among students by variety of propagation measures, catching up with the latest trends in the field of study a building renown among surrounding companies. Despite these activities, the University show negative NPS values (even though not sharply low) a very small feedback in term of past and current students to other students. This result is not in line with the idea that students should be very pride on their alma mater and spread this pride further. This finding encouraged us to interview students. For these interviews, we chosen group of 'passive propagators', because they are happy and unhappy in the same time, so their views would not be over critical as well as not very laudatory, but they would be substantive.

From interviews, we know that some of respondents have experienced disappointment in the term of propagation promises they had exaggerated expectations, which had not been fulfilled during their study. Other (quite numerous) group of students agrees with statement that their exaggeration was caused by attitude of some of teachers. The empathy and friendly approach of lecturers is nowadays very important. If students face at some of modules the hostile attitude of teachers, it creates the negative impression amongst them. Also, the impression might be harmed if students during their study face injustice or the subjective way of marking their performance. If students lose their motivation by these demotivators, then despite of propagation measures, students will not spread renown of the university. But vice versa, if the motivation of students would be on the high level, it is possible to expect spreading the renown gladly, because in this case the name of university would be connected with a certain prestige and pride.

For an evaluation of the reputation of universities exists also an international measuring instrument Raking by Academic Performance (URAP). In this evaluation are graded: academic reputation, reputation amongst employers, rate between students and academic employees, number of citations, as well as gaining international students and academics. On the first three ranks, have been placed Massachusetts Institute of Technology (1st place), Harvard University (2nd), and University of Cambridge (3rd). Despite the variety of world rankings which value and respect, we do not want to reduce by any way, but there are not successful alumni who are the best image and evidence of prestige of this or that university? Therefore, if we change the point of view to this way, top directions in our country are nowadays the technical sciences – above all economy, computer science and engineering. The last but not last there is nothing which can replace empathic and friendly lecturer and pleasant studying environment. By all these aspects should be available at the most prestigious universities. By the management of university reputation is very necessary (even essential) to search the motivation of students because these are the most common distributors of good or bad renown of the university. Based on past findings and knowledge, let us say to recommend to universities not to just focus by their reputation management on impact and results of the propagation measures but also aim on managing this process in more complex and from the wider perspective.

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ADULT EDUCATION TOWARDS CULTURE OF DIALOGUE: THEORETICAL BASIS

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Abstract: *Despite of the crucial importance of building the culture of dialogue and fostering the spirit of cooperation of diverse stakeholders across societies in the light of challenges of the 21st century, educational approaches focusing explicitly on building the culture of dialogue have not been yet developed. In this context, to support the development of theoretical framework concerned with the „adult education towards dialogue culture" - this paper identifies relevant educational approaches and concepts which embrace the concept of dialogue and encompass educational objectives to enhance a culture of dialogue and dialogic qualities of people. Specifically, such „dialogue" themes and educational objectives have been found predominantly in peace building educational approaches - concretely "peace education", "global education" and "education for sustainable development" and peace concepts such as "Lederach's peace concept", "Peace as relationship approach" and "Transrational Peace", which will be presented in this paper. Methodology of systemic literature review and relevant internet sources (journals, websites and reports) have been used to identify relevant approaches and concepts conerning the „education towards dialogue culture".*

Keywords: *adult education towards "dialogue culture", adult peace building education, challenges of the 21st century*

1. Introduction

We set the scene with remarks of Professor Arjen Wals, the UNESCO Chair in Social Learning and Sustainable Development, at the opening of 20th BAICE (British association for international and comparative education) anniversary symposium: *"Sustainability, Peace and Education – Exploring Promise and Practice".* According to professor, today's societies experience "wicked problems in unusual times". We perceive this challenging societal state to be the consequence of highly globalized world we live in with many unresolved complex issues of social, political, economical as well as environmental character. As a solution in this context, a growing number of scholars, authors, leaders and/or opinion makers, emphasize the need of "culture of dialogue" – a true involvement in dialogue of a variety of stakeholders from diverse backgrounds and all levels of societies such as the – international organisations (e.g. United Nations system) governments, political leaders, representatives of civil society (e.g. scientists, NGOs, the media, educators, grassroots communities), in order to peacefully coexist and find creative and sustainable solutions to the current challenges (Ban Ki-Moon, 2016; Guterres, 2017; Lederach, 1997). Similarly, Dalai Lama refers to culture of dialogue as to peoples' ability "to habitually gather together to explore their lives, their differences, their dreams" (Dalai-Lama, 1997). As Dalai Lama further argues, a culture of dialogue empowers people to learn together, to create links, bridges and networks with each other, leading to co-creation of solutions for better and shared future. It is becoming increasingly evident, that in order to contribute to solving of the major issues of the current globalized world, the world needs to be more connected. Consequently, in the domain of education, many educators are currently concerned with the development of innovative and transformative educational

programmes to contribute to solving of challenges of the 21st century (CIRE, 2018). And education is indeed, one of the ways, how to accelerate learning also towards "culture of dialogue". This challenges the education to transform our societies to "dialogic ones". However, despite of the importance of "culture of dialogue" we have not come across educational approaches focusing explicitly on dialogue education, although, various approaches which originate in peace concepts and educations relate to the subject of culture of dialogue. By bringing examples of those together as will be presented in further chapters, we hope to open up an academic discussion about the development of theoretical basis for "dialogue education", which in this paper we are referring to as education towards culture of dialogue.

2. Theoretical basis of education towards culture of dialogue

At the beginning of this chapter we shall emphasize that our interest is to examine theoretical possibilities of the development of education towards culture of dialogue in the context of adult education. It should be therefore noted that educational concepts mentioned in this paper are perceived from the point of view of the adult education, as an integral part of lifelong and life-wide learning (see more about lifelong and life-wide learning in Memorandum on Lifelong Learning, 2000). In terms of operationalizing of term "education towards culture of dialogue" itself, we refer to it as to the education of qualities that we perceive as necessary for the meaningful dialogic interactions and relations, including participatory dialogue, collaboration and cooperation. In our perceiving, education of dialogic qualities encompasses both, non-cognitive or value based education as well as skill based education. Based on the definition of dialogue -"a process of genuine interaction through which human beings listen

to each other deeply enough to be changed by what they learn" (Saunders, 1999, p. 134), in our opinion, values that should be induced through the education of dialogic qualities include those which are related with realization and acceptance of dialogue – e.g. compassion with each other, respect for others and differences, mutual trust, unity, common good, cooperation, mutuality. Education of dialogic qualities should also empower learners to lead dialogue skilfully.

In the chapter below, we will now introduce relevant approaches and concepts of peace and peace building education, which we perceive as concepts that could be included in the basic conceptual skeleton for the development of education towards culture of dialogue.

2.1 Linking education towards culture of dialogue with the relevant peace concepts

There are many perspectives through which we can interpret the concept of peace. In the context of development of education towards culture of dialogue, we offer interpretations of peaces through its processual feature, that means through the processes of relations in peace building, which are conditioned by dialogic qualities of stakeholders in such relations. In this context we have identified following peace approaches – "Lederach's concept of peace", "Peace as relationship approach" and "Transrational peace".

Briefly speaking, "Lederach's peace concept" acknowledges the key role of components such as person's internal processes and social relations in peace building processes. According to Lederach, peacebuilding should be about creating a dynamic process for people to come together and dialogue (Lederach, 1998). Similarly, another concept of "Peace as a relationship approach" is described by "National Peace Academy" as the "wholeness created by the right relationship with oneself, with other persons, other cultures, other life, Earth and the larger whole of which we are a part" (National Peace Academy, 2018). As further explained, the right relationship is reflected within 5 spheres of peace system – (1) *the personal (*requires to establish the right relationship with oneself); *(2) the social (*refers to the relationships of individuals with other individuals and to their collective coexistence); *(3) the political (refers to h*uman relationship in which diverse individuals and groups come together to discourse, to collectively make decisions, and engage in action to create a world together); *(4) the institutional (refers to* right relationships within and between all forms of organizations, government(s), businesses, systems of organization, and civil society to support the development and maintenance of peace systems) and finally, (5) the ecological (refers to right relationship with Earth and its ecosystems). And finally, the concept of Dietrich's "transrational peace" (2014) has found 4 major interpretations of peaces that are based around 4 core values. These are; (1) the energetic peace based around the value of harmony; (2) the moral peace with the core value of justice; (3) the modern peace which is all about the

security; and finally, (4) the postmodern peace concerned with the question of truth. Dietrich however arrived to a conclusion that non of these values can exist separately in social life. That's why he combined all four interpretations of peaces to a larger concept of peace – so called transrational peace. The interpretation of transrational peace encompasses various interpersonal and intrapersonal layers that influence peace-building processes. It is therefore transrational peace research is mostly concerned with the encounter, the relations, the communication styles and the behaviors of human beings (Dietrich, 2014).

In a simplified way, all above mentioned peace approaches are predominantly based on the development of culture of dialogue and people's abilities to dialogue with one self, one another, institutions and world around them, providing an enormous scope of possibilities for the adult education interventions towards culture of dialogue.

2.2 Linking education towards culture of dialogue with the relevant types of „peace-building" education

In this paper we refer to the term of "Education towards culture of dialogue" as to an umbrella term for types of peace building education implicitly as well as explicitly encompasses a basic paradigm – a need for the development of culture of dialogue /dialogic qualities. We have namely identified following relevant such types of education: 1) peace education; 2) global education and 3) education for sustainable development. In terms of peace education, we have found the call for dialogic qualities, for example, in the peace education definition by Cremin and Archer (2017). They suggest that role of peace education is to induce such people's qualities, among others, which will inspire people to be emphatic and solidary and to cooperate with others to build a better world. Morrison (2015) call for educating of dialogic qualities such as skills of dialogue, values of compassion and abilities to deal with structures of power. Similar view is offered by peace education definitions that emphasize people's conscious choice to cooperate (Harber & Sakade, 2009; Khan, 2016). In terms of global education, according to some academics, the key mission of global education is to awaken and activate people to understand the global world and desire to work together towards more peaceful and just societies (Ki-moon, 2012). In the context of global education we have came across the term "trans-disciplinarity". The "trans-disciplinarity" approach encompasses people's capacities such as "social-communication capacity to cooperate and communicate creatively" to create pathways for just, equal, peaceful and sustainable societies (Surendra, 2016, p.32). Furthermore, according to Farahani (2014), based on the concept of UNDP – global education's aim is to induce (1) knowledge development related to awareness of the influencing factors in sustainable development and peace, (2) skills such as mutual understanding ability, participation and cooperation skills, dialogue and communicating ability and (3) values and attitudes related to tolerating opposite views, concern for own and other's peace and welfare; tendency towards justice and truth

seeking. And finally, we offer a definition of education for sustainable development (ESD), defined as transformative learning process and development of skills required to contribute towards environmentally and ethically responsible society. According to Khan (2016) it requires skills of critical thinking, imagining future scenarios and making decisions in a collaborative way. Furthermore, according to Surendra (2016), partnership, that is a culture of cooperation, collaboration and multi-stakeholder endeavour needs to be embodied in all spheres of doing the ESD itself. The culture of cooperation needs to be embodied within learners and teachers and it should be done in partnership with many sectors of society, outside of educational institutions.

3. Conclusion

Education that focuses explicitly on education towards culture of dialogue has a great potential to significantly contribute towards building of more peaceful, dialogic and collaborative societies, enabling them to address many complex challenges in the 21st century. In terms of its development, we suggest that peace concepts such as "Lederach's peace concept", "Peace as relationship approach" and "Transrational Peace" and education types such as "peace education", "global education" and "education for sustainable development" provide an useful theoretical rationale for the development of theoretical as well as practical framework for education towards culture of dialogue. We hope to inspire more of the academic discussion about the development of the education towards culture of dialogue and direction in which such development should be going.

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Session: Economy, Financing, Public Administration

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RIGHT OF REPLY OF PUBLIC OFFICIALS

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Abstract: *In his article author deals with legal regulations on periodicals in conditions of the Slovak Republic with emphasis on legal arrangement of subjective rights protection of natural and legal persons against untrue factual claims published in the periodicals. Further, author assesses, discusses and analyses legislation on the right of reply in the Slovak Republic. In the main part of the article author has pointed to problems in application of legal arrangement of the right of reply and presents his de lege ferrenda proposals. In his article author focuses on amendment of the Act on periodicals, whereby the right of reply has been extended to public officials, political party or political movement leaders as well as Vice Chairs of political party or political movement.*

Keywords: *right of reply, problems with application in practice, future legislation*

1. Introduction

Periodicals belong among main information means at present, not only in the Slovak Republic, but also in the whole world. Periodicals are one of the main means of obtaining information for people all over the world, but at the same time it is one of major means of influencing people and public opinion all over the world. Popularity and spread of periodicals have increased by emergence and development of the Internet. Today all daily newspapers, weekly publications and monthly publications are disseminated also in the electric version through the Internet. I dare say, that daily newspapers, weekly publications, monthly publications, including their Internet version, have become main source of information for people all over the world currently.

That is why I deem necessary to give due consideration to periodicals, particularly to the field of legal regulations on periodicals.

At present the issue of periodicals is becoming increasingly important in the Slovak Republic due to a fact, that in the National Council law seeking to amend Act No 167/2008 Coll. on periodicals and agency news amending certain laws (Press Code) has been submitted (hereinafter referred to as "Press Code").

Proposed amendments of the Press Code are related to issue of the right of reply of public officials. To put it simply, situation on the political stage of the Slovak Republic has developed in a such a way that majority in Parliament has agreed to introduce legal arrangement of the right of reply also for public officials. To write the article I had been driven by a thought that introduction of the right of reply legal arrangement for public officials has absolutely no real and legal justification, as evidenced by legislative process itself of the proposed amendment. The only logical explanation for adoption of the proposed amendment, that shall be presented bellow in the article, is subjective assessment of public officials and ruling majority in Parliament that they are disproportionately affected by periodicals.

In this respect I further note that Parliament had reached the proposed amendment of the Press Code without a prior public hearing and prior professional expertise in the field.

Further to dissemination of daily newspapers, weekly publications, monthly publications in electronic version through the Internet it is quite possible to assume perishing of printed versions of daily newspapers, weekly publications, monthly publications, as it had been already announced by some publishers in the past. In the future legislation will have to respond to the situation in order to secure also legal protection in the event of withdrawal of print media and dissemination of information through the Internet exclusively. However, to extend the right of reply to public officials is not an appropriate procedure, but rather to solve situation that the Press Code in the Slovak Republic does not apply to daily newspapers, weekly publications, monthly publications in electronic version disseminated through the Internet.

At the moment we are in a time when publishers of periodicals disseminate identical content also through the Internet, namely by means of electronic version of their periodicals.

Key question dealt by the article is, whether legislation on the right of reply is sufficient in relation to legislative amendments that had already been drawn up on the right of reply of public officials.

2. Right of Reply in the Slovak Republic

Key issue to be dealt with from the perspective of protection of natural persons and legal persons in the field of periodicals is, whether means of protection of natural and legal persons are well-designed, and if they are efficient and legally effective.

The right of reply is a means of legal protection to be applied, in case periodicals or agency news contain untrue, incomplete or truth-distorting factual claim concerning integrity, dignity or privacy of natural person, name or reputation of the legal person, by which the person can be accurately identified, in that case the person has the right to demand publishing of reply.[1]

As we have seen, the right of reply may be applied only with periodicals.

Pursuant to Section 2 Article 1 of Act No 167/2008 Coll. on periodicals and agency news amending certain laws (Press Code) (hereinafter referred to as "Press Code"), and I quote: *"Periodicals mean newspapers, magazines or other press media published under the same name, the same content and graphical representation at least twice a calendar year."*[2]

By periodicals we understand newspapers, magazines or other print. The question here arises, whether electronic versions of periodicals disseminated through the Internet can be considered periodicals, provided that contents of printed version and electronic version are identical. Reply to the question is important for the purpose of subsequent assessment as to whether the right of reply can be applied also to electronic version of periodicals disseminated through the Internet.

Given the fact that the Press Code covers only periodicals in a form of print, and not its Internet version, nor the right of reply can be applied in case of electronic version of periodicals disseminated through the Internet.

Here I would also bring attention to the Recommendation 16 (2004) of the Council of Europe's Committee of Ministers that has responded to establishment of new media, namely the electronic version of periodicals disseminated through the Internet.

The Recommendation 16 (2004) of the Council of Europe's Committee of Ministers has responded to establishment of new media, namely the electronic version of periodicals disseminated through the internet, in a way that pursuant to the Recommendation a set of media that should be subject to obligation of publishing the reply has been extended also to this kind of media. In Preamble of the Recommendation 16 (2004) of the Council of Europe's Committee of Ministers we can read, and I quote: *'... the right of reply is an appropriate discretionary remedy in the field of on-line media with regards to a possibility of instant correction of contested information and with regards to technically easy way to attach reply to the data subject on the contested information."*[3]

Following the above, the Recommendation 16 (2004) of the Council of Europe's Committee of Ministers has articulated the minimum conditions for the right of reply to be observed by the Member States. Pursuant to the Recommendation 16 (2004) of the Council of Europe's Committee of Ministers, and I quote: *"Communication means is any means of communication used for periodical dissemination of edited information to public, whether on-line or off-line, like newspapers, magazines, radio and television broadcasting as well as the Internet intelligence services."*

The Recommendation 16 (2004) of the Council of Europe's Committee of Ministers has also defined the term of medium as *"any communication means for public dissemination of redacted on-line information, such as newspapers, magazines, radio, television and Internet news services."*

In the conclusion the Recommendation 16 (2004) of the Council of Europe's Committee of Ministers has recommended to the Member States to guarantee to data subjects the right of reply in case of periodicals disseminated through the Internet in similar extent as in other kinds of media.

Legislation of the Slovak Republic did not respond to the Recommendation 16 (2004) of the Council of Europe's Committee of Ministers, even though the Recommendation 16 (2004) of the Council of Europe's Committee of Ministers had preceeded adoption of Press Code in the Slovak Republic. Right of reply thus has remained regulated by the Press Code, and it is applicable for periodicals in a form of print, but not in electronic version of periodicals disseminated through the internet.

I find the fact that the right of reply is not applicable in a form of electronic version of periodicals disseminated through the Internet a huge minus of this means of legal protection. I understand that in 2008, when the Press Code had been adopted, the need for adoption of legislation on the right of reply applicable also to electronic versions of periodicals disseminated through the Internet was not acute, since at that time periodicals had been disseminated through the Internet only to a minimal extent. However, as early as 10 years later this kind of periodicals have taken centre stage, and we can witness downsizing of press media. I therefore believe that legislation of the Slovak Republic should respond to the situation and expend the possibility to apply the right of reply also to electronic versions of periodicals disseminated through the Internet.

Following the above, I suggest as de lege ferennda proposal, that in the Slovak Republic be in relation with the Recommendation 16 (2004) of the Council of Europe's Committee of Ministers secured the right of reply also for electronic versions of periodicals disseminated through the Internet. This would require amendment of the Press Code and extension of definition on periodicals, with inclusion of dissemination of information through the Internet

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[1] Section 8 Article 1 of Act No 167/2008 Coll. on periodicals and agency news amending certain laws (Press Code)
[2] Section 2 Article 1 of Act No 167/2008 Coll. on periodicals and agency news amending certain laws (Press Code)
[3] Recommendation 16 (2004) of the Council of Europe's Committee of Ministers

among periodicals, as introduced earlier in the article, that is inclusion of electronic versions of periodicals disseminated through the Internet.

3. Right of reply of Public Officials

Proposal by Dušan JARJABEK and Miroslav ČÍŽ, members of the National Council of Slovak Republic, for adoption of law amending Act No 167/2008 Coll. on periodicals and agency news amending certain laws (Press Code), that had been submitted in the National Council of the Slovak Republic on 11 January 2019 (hereinafter referred to as "draft law") is to have significant impact on the right of reply extension.

To express it simply, the draft law is to extend possibility to apply the right of reply also to public officials without any reasoned and professional explanation, as will be seen from the article.

Pursuant to current legislation of Section 8 Article 1 of Press Code, and I quote: „*If periodicals or agency news contain untrue, incomplete or truth-distorting factual claim which affects integrity, dignity or privacy of natural person or name or reputation of natural person, under which person can be accurately identified, the person has the right to demand publishing of the reply. Publisher of periodicals as well as press agency are obliged to publish reply free of charge; by publishing of reply the right of reply to one and the same factual claim is extinguished.*"[4] Under the provision the right of reply is guaranteed.

Pursuant to Section 8 Article 2 of the Press Code, and I quote: "*In the case of factual claim associated with performance of their function the right to demand publishing of reply does not apply to public official who for the purposes of this Act is a person appointed by specific regulation, head of a political party or political movement and Vice-chairman of political party or political movement. Nor does the right to demand publishing of reply in case of factual claim associated with performance of their function apply to legal person, head of political party or political movement, Vice-chairman of political party or political movement acting in legal person concerned.*"[5] In accordance with that provision public officials[6], head of political party or political movement and Vice-chairman of political party or political movement, were excluded from the right of reply, namely without good reason. In this respect it must be observed that these persons had not been revoked the possibility from the beginning, but after 3 years of validity and effectiveness of the Press Code and follownig experience with the legal arrangement, namely by amendment of Act No 221/2011 Coll.

On the basis of draft law the following wording has been proposed in Section 8 Article 1 of the Press Code, and I quote: "*In the event periodicals or agency news contain factual claim that affects integrity, dignity or privacy of natural person or name or reputation of legal person enabling accurate identification of the person, the person has the right to require publishing of reply. Publisher of periodicals and news agency are obliged to publish the reply free of charge; this is without prejudice to the right of rectification.*"[7]

At the same time pursuant to the draft law it deletes Section 8 Article 2 of Press Code whereby public officials, head of political party or political movement and Vice-chairman of political party or political movement had been denied the right of reply.

Fact, that the draft law does not evaluate in any relevant and professional way the proposed change, can be shown in Explanatory Memorandum to the draft law.

Pursuant to Explanatory Memorandum, separate part of draft act to amendment of Section 8 Article 1 of Press Code, following has been indicated, and I quote: "*Wording of Section 8 Article 1 is amended as it used to be amended in original wording of the Press Code with effect from 1 June 2008.*"[8]

Pursuant to Explanatory Memorandum, separate part of draft act on deletion of wording in Section 8 Article 2 of the Press Code the following is indicated, and I quote: "*By deletion of paragraph 2 in Section 8 possibilities of the right of reply application have been extended also to entities that had been denied the possibility by amendment of Act No 221/2011 Coll.*"[9]

Such a justification of draft act that is to lead to significant change in rights and obligations of public officials as well as rights and obligations of publishers of periodicals can be considered entirely without foundation and unsubstantiated.

Therefore, the draft act can be considered purposive with the only intention, namely to secure that public officials may use the right of reply in the same extent and manner as common private persons, even though one of public officials´ duties is to cope with higher intensity of criticism by public than a common citizen.

4. Conclusion

Subject of the article has been the right of reply in the Slovak Republic as well as outlining of some issues that follow from practice and incur in means of legal protection application of natural and legal persons against factual claims (untrue, incomplete, and truth-distorting) stated in periodicals. At the same time author has pointed to

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[4] Section 8 Article 1 of the Press Code
[5] Section 8 Article 2 of the Press Code
[6] Persons referred to in Article 2 of Organic Law No 357/2004 Coll. on the Protection of Public Interest by the Performance of Offices of Public Officials, as amended, are to be considered public officials.

[7] Draft Act - Section 8 Article 1
[8] To point 2 of Explanatory Memorandum, separate part to draft act
[9] To point 3 of Explanatory Memorandum, separate part of draft act

deficiencies in legislation on the right of reply. In general, it should be noted that the Press Code and legislation on the right of reply in the Slovak Republic is not of bad standard, however, in more detailed examination and deeper analysis some deficiencies can be revealed. Key issue covered by author has been the draft act, whereby possibility of application of right of reply has been extended to public officials, namely without factual background and any professional explanation. Such legislation is not desirable.

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[2] Act No 81/1966 Coll. on periodicals and other mass media

[3] Act No 167/2008 Coll. on periodicals and agency news amending certain laws (Press Code)

[4] Act No 46/200 Coll. on rights and obligations in publishing of periodicals and amending certain acts as amended (Press Code)

[5] Recommendation 16 (2004) of the Council of Europe´s Commitee of Ministers

[6] Proposal by Dušan JARJABEK and Miroslav ČÍŽ, members of the National Council of Slovak Republic, to adopt an act amending Act No 167/2008 Coll. on periodicals and agency news amending certain laws (Press Code), as amended, that was submitted in the National Council of the Slovak Republic on 11 January 2019

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CAPITAL STRUCTURE DEBATE - A BRIEF LITERATURE REVIEW

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Abstract: *The first paper by Modigliani and Miller opened in 1958 – more than 6 decades ago – the still ongoing debate on the question of the optimal capital structure. Since then, many contributions have been made to this research topic; in many countries, various sub-areas have been analyzed theoretically and empirically. Nevertheless, the capital structure puzzle has not yet been solved. Against this background, the aim of this paper is first to provide a focused literature overview of the problem of capital structure. Secondly, it is the intention of this paper to present a proposal to explain the existing problems in the search for the – single – optimal capital structure. It also provides an overview of the – actually many – determinants of the capital structure. Therefore, this paper is to be understood as an essay on the literature on capital structure and on still outstanding questions on the subject.*

Keywords: *capital structure, finance instruments, debt ratio, equity ratio, strategic finance.*

"In Gutenberg's (note: the German business economist) days, financial managers were seen in the role of gas station attendants, which provide the operating vehicle with the required fuel. From today perspective, financial managers have the filling station attendant cap with the chauffeur cap mixed up. They have the task of controlling and supervising the operational value creation process and thus – in order to remain in the picture – keep the steering wheel in hand."[21]

1. Introduction

In the 1950s and 1960s, the question of how to find or even design an optimal capital structure was a central theme of financial theory – and has remained so to this day. At the centre of this discussion is the irrelevance theorem of Modigliani and Miller [23], a model of neoclassical financial theory. This approach led to the statement that, in restrictive circumstances, the value of a company is independent of its capital structure. Thus, an optimal capital structure would not exist at all.

On this basis, many researchers all over the world have now joined this discussion in order – again – to search for a perhaps optimal capital structure. So far, a great many theoretical and empirical studies have been carried out in this context. To date, however, an optimal capital structure has not yet been found and documented. In fact, there are many quite different approaches to explaining this, which not seldom contradict each other.

The first aim of this paper – in the shape of an essay – is to give a brief overview of the fields of capital structure research already discussed. Second, this paper presents an overview of the main determinants of capital structure and related interactions. Thirdly, it is intended to provide a possible explanation that an optimal capital structure has not yet been identified and what opportunities there are to find it soon.

This chapter – the first of this paper – gives an introduction to the topic of – optimal – capital structure. The second chapter gives a rough overview of the main directions of the existing literature on the capital structure debate. On this basis, the third chapter demonstrates a scheme that presents the main determinants of the capital structure, including the main interrelations that are discussed between them in the literature. Finally, the fourth chapter of this paper summarizes and suggests ways to further investigate the capital structure.

2. Capital structure approaches

The following section does not claim to provide a comprehensive picture of all prevailing capital structure theories. Only a picture of the main research directions over time is to be conveyed.

2.1 Irrelevance theorem (s)

In neoclassical financial theory, under the restrictive assumptions of a perfect capital market and risk-averse investors financial issues are analyzed. The contribution by Modigliani and Miller in 1958 [23] to the – possible – irrelevance of the capital structure is still regarded as the trigger for the subsequent intensive corresponding research and starting point for many derived theoretical approaches that all belong to the capital structure discussion.

The irrelevance proposition ("theorem I") states that the market value of a company is independent of the chosen capital structure – under the assumptions of a perfect capital market. The capital structure is defined here as the simple ratio of debt to equity. Modigliani and Miller further explained that the cost of capital does not change when relatively more debt is used. This would increase the cost of equity and not change the average cost of capital – as the lower cost of debt must be balanced by an increase in the return on equity ('theorem II'). Modigliani and Miller therefore stated that the weighted average cost of

capital would remain constant regardless of the capital structure chosen ('theorem III').

The publication of Modigliani and Miller and the hypotheses put forward in this paper were subsequently discussed in detail. Many comments criticized the very restrictive assumptions of the model presented, as these did not correspond to the realities on the financial and real markets. On this basis, Modigliani and Miller initiated the very lively capital structure debate, which to this day has provided many insights into the – possibly – optimal or at least better financing of companies.

2.2 Trade off-approaches
The trade-off approaches mainly follow the idea, that the capital structure may be used to back the value maximization of a company by optimizing the capital costs. They discuss the potential advantages and disadvantages of financing with equity or debt capital or a mixture of both. Thus, they generally assume that the choice between these two poles is not irrelevant. The corresponding advantages and disadvantages result from the real situation of the financial markets, if the strict assumptions of the neoclassical approach of Modigliani and Miller are deviated from. The focus is on the possible effects of taxes and insolvency risks. Modigliani and Miller themselves [24] stated that their theorems do not apply if taxes and their effects are taken into account. In detail, a tax advantage of debt financing results from the fact that interest on debt capital reduces the tax base for the tax burden. On the other hand, dividends paid to the company's equity investors are taxed in full. This would result in a higher enterprise value for companies that are financed by both equity and debt, as more capital can be distributed.

Further, it should be noted that – higher – indebtedness is associated with a risk of insolvency. In this context, Robichek and Myers [31] developed a model that focuses insolvency costs accordingly. Baumol and Malkiel [5] continued to show that there is an optimal capital structure – which is not irrelevant. The justification for this is as follows: On the one hand, debt leads to a lower tax burden for companies and thus to an increase in the value of the company. On the other hand, a rising debt ratio then increases the probability of insolvency of the company concerned [9]. Between the advantages and disadvantages of debt there seems to be a trade off. Consequently, a capital structure is optimal if the marginal tax advantage corresponds to the marginal insolvency costs. The point in question is to be determined by means of an adequate cost-benefit analysis – and taking into account other determinants of the capital structure as discussed in chapter three of this essay.

2.3 Pecking order-approaches
Pecking order-approaches assume that the main purpose of a chosen or developed capital structure is not primarily the maximization of the value of a company. The pecking order models are primarily based on a work by Myers and Majluf [27] which is a hidden information-based approach. They rest on an information asymmetry between internal managers and external investors that already existed at the time the respective contracts were concluded. In the assumptions of the pecking order model, external investors are regarded as less well informed than internal managers, who are regarded as holders of proprietary information. The approach of Myers and Majluf focuses on the question of the signaling function of a capital increase against deposits and the interactions between investment and financing decisions that can be derived from this. Generally, companies prefer forms of financing that have fewer information asymmetries. Correspondingly, internal is preferred to external financing.

If a company needs additional external capital, it will first take out low-risk loans, followed by high-risk loans. Equity is in last place in this preference. The Pecking Order theory therefore does not provide any indication of an optimal capital structure that can maximize the enterprise value, but only reflects the preferences regarding the financing structure. In addition, Myers and Majluf [27] also demonstrate that a company that has sufficient financing possibilities can realize more projects that are profitable and can perform better. If the internal financing is not sufficient to invest in a valuable project, outside capital is used [33][22].

2.4 Real world interaction-approaches
The pecking order-approaches presented above already take into account some of the interactions between a company and the real world around it. Accordingly, they do not assume that capital structure issues are only financial issues. Further approaches in this direction focus on a possible (cause-and-effect-) relationship between the capital structure and the real environment of a company. On the one hand, the choice of capital structure could affect the activities of a company, its investments, market measures taken, cost efficiency achieved and others [13][20]. On the other hand, different strategic decisions of an undertaking may also require different capital structure decisions [22][31].

For example, the Campello paper [8] demonstrates the influence of the capital structure on the results of the product market. His study found that under certain circumstances, debt financing could have a negative impact on a company's revenue growth. Hackbarth and Mauer also show that the capital structure can lead to over- or under-investment [14].

Various researchers contribute to the question of whether there is a connection between the capital structure and the performance of a company. Here Abor's [1] study states that the success of a company decreases with its debt; Shubita and Alsawalhah [32] and Jensen, Solberg and Zorn [15], however, come to the opposite conclusion in their studies. In addition to the question of profitability, other researchers are investigating competitive behavior as a function of the capital structure. Generally, different real

world interaction-approaches deliver quite different results.

2.5 Interim conclusion on capital structure research

Overall, it can be stated that the approaches pursued in the capital structure debate in the meantime are sometimes very different. While some of these focus on increasing the value of a company, others focus on the incentive effects associated with the capital structure or other interactions. The different approaches can also complement, overlap, confirm or contradict each other. To date, no comprehensible picture of a generally optimal capital structure has been drawn.

Despite the many contributions to the question of the optimal capital structure, Myers stated in 1984 [25] and 2001 [26] that there is still no clear theory that takes into account all the factors of a company's capital structure decisions – and will not exist. The aim of the respective research is rather to present the breadth of the possible (alternating) effects on the capital structure as well as the possibly optimal ones for certain narrowly defined cases.

Against this background, the following chapter will provide an overview of the main factors relevant to impact. At the same time, they show the direction of ongoing and further research into capital structure.

3. Capital structure – determinants and (inter)relations

The focused overview of the main directions of the capital structure debate presented in the previous chapter has indeed only made up a small part of it. In the expert discussion there is a large number of further studies which often concentrate on individual determinants or consequences of the capital structure.

These are about:

- *Profitablility:* Jensen [17] argued that higher profitability of a company should correlate with a higher debt ratio. But, out of the perspective of the pecking order-approach Myers and Majluf [27] and Allen [3] hold the view that the correlation between profitability and debt ratio should be negative.
- *Company value:* As the company value is to be understood as a function of profitability, growth rates, risk and some other factors company value and capital structure may be related to each other [10].
- *Growth rates:* Jensen and Meckling [16] found that the expected future growth rate may be accompanied by a lower debt ratio. The reason for this finding may be due to the relatively higher risk of growing cycles.
- *Size:* Rajan and Zingales [28] did not proof a relationship between size and capital structure. Against this, other studies proofed a positive correlation [4] or the opposite [35].
- *Age:* Sogorb-Mira and Lopez-Gracia [34] argue that older companies have higher debt ratios. The reason for this may be that they have already shown success and

gained substance. However, other studies report exactly the opposite result [1].

- *Industry-specific risks:* Ferri and Jones [12] have found that higher industry-specific risks are associated with lower financial indebtedness. Thus, the financial leverage risk offsets the risk due to a specific industry.
- *Country development*: Booth et al. [6] have noted that the assessment of the capital structure issue must take into account specific institutional factors in different countries.
- *Asset quality*: Rajan and Zingales [28] have found that better asset quality in terms of tangibility correlates with higher indebtedness. One reason may be the fact that the assets in question can serve as collateral for a loan.
- *Credit rating*: Kisgen detected a relation between credit rating and capital structure. He states that because of rating changes, companies may change their capital structure [18][19]. Alternatively, the capital structure itself may be described making use of key financial rating figures [29][30].

Indeed, there are other determinants to be mentioned taking into account real life financial decisions of companies [29]. An overview of the most important ones of them is presented here:

- The condition of the financial markets – generally and in detail – may influence the capital structure.
- The definition of the terms debt and equity is different in different accounting standards. Respectively, details may influence the capital structure.
- The investment plans and chances may influence the capital structure. For example, the chance of a company acquisition may change the optimal leverage of the buyer.
- The capital structure may alternatively be described by more than only the one key financial figure as relation of debt to equity.
- The qualification and strategic aims of the chief financial officer may influence the capital structure – choice and result.
- The life cycle of a company may influence its capital structure – age and risk.

As already mentioned, the literature regarding capital structure is that much, that this paper only can deliver a rough overview. The discussed papers chosen are taken from the main discussion in research and also some detailed studies focusing special aspects. The overview refers to well-known researchers. The detailed studies come out of different sources. Additional aspects have been added.

As Myers has already stated, there can hardly be a generally optimal capital structure. The main reason for this is that too many determinants - and their mutual effects - have to be taken into account [25][26]. In addition, maximising enterprise value - the starting point of the capital structure discussion - does not seem to be of

equal importance for all companies. With different objectives, different measures are comprehensibly optimal.

With regard to research towards an optimal capital structure - if necessary on a case-by-case basis - the goals of a company and its management must first be clarified. Then the entire range of determinants as well as the relationships to each other must be further taken into account. Some of them correlate in one direction or another - others not.
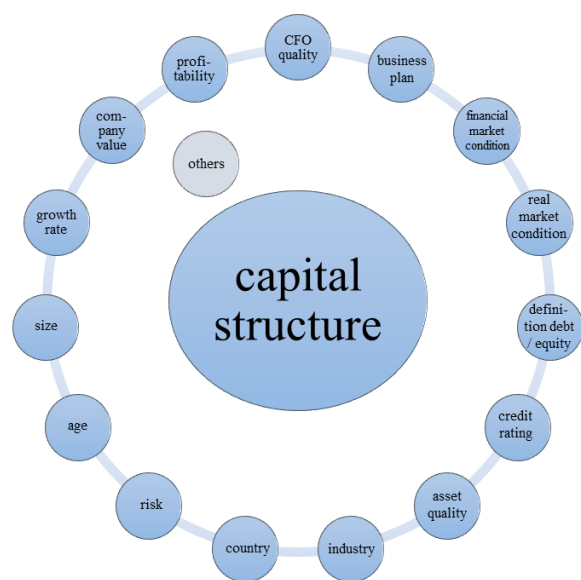
Figure 1: Capital structure and determinants

In addition, it can be stated that the capital structure can influence the market value of a company, its performance and its risk/return position. However, the influence can also go exactly in the opposite direction - or be reciprocal.
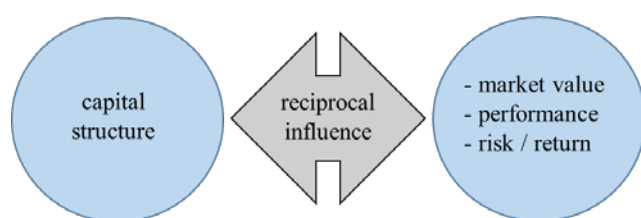
Figure 2: Capital structure and reciprocal influences

4. Summary

The purpose of this paper was to give a brief overview of the literature debate on the - optimal - capital structure. The discussion of the various research approaches should have made it clear that the only optimal capital structure will be difficult to find. According to current estimates, the main reason for this is that a large number of effects and interactions between the many relevant determinants have to be taken into account. However, this finding encourages us to identify different optimal capital structures for quite different constellations of the determinants concerned.

Accordingly, there are many approaches for further theoretically clean and practically useful research on the capital structure for the research in question.

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HOW NEW ENVIRONMENTAL STRATEGIC DOCUMENT OF SLOVAK REPUBLIC NAMED ENVIROSTRATEGY 2030 PERCEIVE POLITIC OF USING RENEWABLE SOURCES OF ENERGY

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Abstract: *Within our contribution, we focus on one of the most crucial strategic documents of the Slovak Republic nowadays, which is called Envirostrategy 2030. We will focus on emphasizing the importance of the strategy and its role. Subsequently, we deal with the public's attitude towards this strategic document and its contribution to the future. However, our priority is the perception of the use of the renewable energy sources in the Slovak Republic through Envirostrategy 2030. Based on this analysis, we will be able to evaluate whether this strategic document is beneficial for environmental policy.*

Keywords: *Envirostrategy 2030, renewable sources of energy, Slovak republic*

1. Introduction

The issue connected with avoiding environmental devastation and improving the quality of public health is present in all of the countries. It is the same in case of Slovak Republic, which has now adopted one of the most strategic strategy documents, specifically the environmental document, Envirostrategy 2030. In our contribution we try to point out the complex goal of the given strategy along with other partial priorities. We primarily focus on renewable energy sources. We are trying to find answers to the question whether Envirostrategy 2030 can help in its efforts to achieve the desired results.

2. How new environmental strategic document of Slovak republic named Envirostrategy 2030 perceive politic of using renewable sources of energy.

Envirostrategy 2030 is currently one of the key strategic documents of the Slovak Republic. In terms of its preparation and coordination, the Institute of Environmental Policy was responsible for it. As part of the preparation of the Envirostrategy 2030 proposal, a public consultation, analyzes of the Institute of Environmental Policy and elaborated documentation of 7 specialized working groups were carried out. It included about 160 experts, and the public could also comment on the preparation of the strategic document. Envirostrategy 2030 pursue the identification of the current priorities and deficiencies, and on the basis of it the strategic document brings concrete measures to improve the current situation. It defines the direction of policies accepted in the next period in order to improve the quality of the environment. It doesn't matter, whether it'll be about the approval of the legislation, implementing regulations or public funds use, everything has to be in accordance with the set priorities of Envirostrategy 2030. [3]

As regards the adoption of the above-mentioned strategic document, it was a approved by the Government of the Slovak Republic in March 2019. After a long period connected with the Envirostrategy 2030 preparation, Slovakia has a precisely defined approach to combat current environmental problems, including: landfilling, air protection, species and biotopes protection. After its adoption, implementation phase begins. This process will be carried out through amendments to laws and changes will also be made in case of action plans of an individual sectors. This key environmental document, such as Envirostrategy 2030, is divided into three basic areas, which are defined as follows: nature protection with emphasis on water, forests and protected species; climate changes and air protection; the green economy including the circular economy, together with more efficient waste management. As already mentioned, Envirostrategy 2030 was prepared thanks to the analysis of the Institute of Environmental Policy, including 160 experts from individual ministry, experts from academia, scientific institutions, as well as professionals from the business sector or the non-profit sector. [4]

On the basis of the possible, probable and desired future development, this strategic environmental policy document identifies the vision of functioning of the Slovak Republic by 2030. It also contains basic indicators to verify the obtained results. The main objective of Envirostrategy 2030 is to achieve a better quality of the environment and to ensure the emergence of a sustainable circular economy that will be based on protecting the environment and using as low and non-renewable energy sources as possible, that will help to improve population's health. Ensuring protection and sustainable consumption should create an integral part of the population's awareness. With such attitude, we can prevent and adapt to climate changes, which makes us believe that consequences caused by this negative phenomenon will be moderate. [7]

As we have already mentioned, the main priority in order to ensure a better environment is to combat waste, ensure

cleaner air and protect biotopes. Within these dominant goals, the aim of the political representatives of the Slovak Republic, in terms of recycling of municipal waste, is to reach 60 % in 2030. In addition, it is established that more environmental alternatives in household heating, as well as in transport, are about to be implemented. Last but not least, it is considered necessary to remove negative subsidies together with regulation of, for example, financial contributions used for the extraction of domestic brown coal. There will be also a reassessment and simplification of the protected area system. [6]

In terms of defined priority areas of Envirostrategy 2030, we would like to describe the green economy objectives. Through the above mentioned environmental strategic document, the Slovak Republic considers the following to be important: introduction of the circular economy principle; increasing recycling rates to 60% and reducing landfill rates to less than 25%; increasing prevention to prevent illegal landfills; limiting the production of food-derived waste (restaurants and supermarkets will have to donate food to charity, to avoid wastage and help the socially weaker, and they will need to recover or compost food after warranty period; to ensure that green public procurement covers 70% of all public procurement and equally support green innovation; favouring renewable energy production. [2]

Let's move to the issue of using renewable energy sources. Envirostrategy 2030 states that all types of renewable energy sources need to have developed and agreed criteria of the sustainable using by 2020. The aim is to gradually reduce the level of electricity and heat production through coal. Energy prices should include all external costs. In terms of legislation and financial support, those resources that meet sustainability criteria and will not negatively affect the environment, will be subsidized. This will increase the level of transparency and public awareness about energetics and energy projects. [7]

Despite the fact, that in terms of objectives set for Strategy Europe 2020, we are close to achieve the value, which was set for 2020 in this area, it's questionable whether we will be able to achieve it, therefore, Envirostrategy 2030 is an appropriate means of reversing a development and progress even beyond 2020. It's necessary to correct the fact, that Slovak Republic lags behind in using renewable energy sources. By increasing their use, long-term sustainable development and better environmental condition will be achieved. [5]

Renewable energy sources with the largest proportion in terms of total electricity production, are hydro power plants producing one sixth of the total electricity produced in the Slovak Republic. The economy of our country is one of the busiest in terms of industrial structure, but for the period of 2000 – 2015, we have reduced energetics demands by up to 51%. When comparing with other V4 member states, we have the lowest energy intensity. [7]

Envirostrategy 2030's priority is to align environmental rules of individual sectors, which will help to resolve cross-sectoral competencies. It is essential that stated environmental rules, which has to be respected by individual sectors, should be reflected in their policies. Envirostrategy 2030 shows instructions and direction of the Slovak Republic, how to progress and where we should get to meet the set goals. [1]

As we have already stated, in terms of energy production, we will prefer energy gained from renewable energy sources, as it doesn't burden environment and in comparison to conventional energy sources ensures sustainable development. Elaboration of rules and criteria for individual renewable sources, for their sustainable use will be in the sense of respecting regional potential, economic benefits, impacts on the energy system, impacts on protected areas (protected plant and animal species), public opinion (municipalities and regions). These principles will be a commitment to the upcoming projects. Public funding, along with further legislative support for renewable sources, is only accepted if it doesn't cause environmental degradation. Equally important is public awareness of these projects and the assessment of negative environmental impacts. The effects of hydroelectric power will be mitigated against the hydrology of river ecosystems by becoming a barrier to watercourses, all in terms of biotopes protection. Another priority is to place solar power plants on building roofs, parking lots or land that will be considered to be qualitatively lower. In addition, the protection zones of geothermal resources will be delimited from the legislative point of view, with the necessity of their observance. Based on the collection of data on current energy consumption, the Slovak Republic can ensure the sustainability, safety and economic efficiency of electricity supplies produced by large, but also smaller renewable energy sources installed at their consumption points. This will make energy processes more effective in avoiding negatives and ensuring positive environmental impacts. [7]

3. Conclusions

To improve the quality of the environment and the health of the population, it is essential to take the most effective steps. Within the Slovak Republic, Envirostrategy 2030, was established, the aim of which is to enter the path of progress. We tried to specify the individual objectives of the strategy to show that our country is responding to the current situation, equally accepting challenges for the future, and wanting to achieve the best results. We focused our attention on the issue of using renewable energy sources. We believe that the provided information are sufficient to answer the question of whether such a strategy is an appropriate step forward.

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POLITICAL AND ECONOMIC COOPERATION OF THE VIESZEHRAD GROUP COUNTRIES WITH A PARTICULAR REFERENCE TO THE ASPECTS OF INNOVATION

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Abstract: The subject matter of the considerations strictly refers to the cooperation of countries with foreign countries. The research area was defined as the countries belonging to the Visegrad Group, i.e. Poland, the Czech Republic, Slovakia and Hungary. Specifically, the work concerns the economic relations of these countries with foreign countries. The general objective of the work is to analyze and evaluate the cooperation of V4 countries mainly in the field of innovation. The article in its scope covers only the theoretical approach to the analyzed problem. Therefore, in the implementation of the assumed objective, the following research methods were used to analyze: the subject and a comparative analysis. The work was divided into three parts combined into a logical whole. In the first place, a summary introduction to the subject was presented, the second - the main one concerns the cooperation of the countries associated under the V4, and the last part is a concise summary of the research topic taken up.

Keywords: Visegrad Group, innovation, cooperation

1. Introduction

In the history of building relations between the participants of the Visegrad Group, three important points can be distinguished. The first of these dates back to 1335, when a meeting of the three kings was organized in Visegrad: Charles of Anjou from Hungary, Jan of Luxemburg from the Czech Republic and Casimir the Great from the Commonwealth. At the meeting, the issues of Kujawy and Gdańsk Pomerania were discussed, as well as the dispute over the Polish crown between Kazimierz Wielki and Jan Luxemburg [1].

Another important moment took place in 1991, when Czechoslovakia, Hungary and Poland formed an informal alliance which main goal was to support efforts related to the integration of these countries with NATO and the European Union, few analysts believed that almost three decades later the Visegrad Group will still be functioning [2].

Four countries reconciled their historic differences without giving up their tradition and identity, laying the foundations for lasting regional stability. The Warsaw Pact and other structures of the former regime were dismantled and because of that a kind of vacuum appeared.

The fundamental task that was set before the V4 was achieved with the accession of its members to NATO (Poland, Hungary and the Czech Republic in 1999, while Slovakia in 2004) and the European Union (all four countries joined the Community in 2004), which was the third important point in the history of relations between these countries. Although the goal was achieved, it was decided to extend the group's operation. The goals that were to be implemented within has changed. A particularly important aspect was the implementation of a specific policy as mutual partners regarding the principles of the functioning of the European Union [2].

Although these countries are clearly far from homogeneous, and a coordinated approach on many issues is prohibited, it was emphasized that the areas with the greatest potential constitute a common foreign and security policy and a common security and defense policy towards the European Union.

The countries of Central and Eastern Europe faced a double challenge. On the one hand - transformation, which is about the process of rebuilding free enterprise structures and, on the other hand, the challenge of permanently adapting to rapid technological changes, which would eventually result in a competitive position in a turbulent market environment.

Historical injuries are one of the conditions determining the development of states, because they affect international connections. The countries belonging to the Visegrad Group are neighbors, which affects the development of each of them. Claims that occurred during this time must go into the background, it is necessary to take appropriate steps that will affect the common interest of V4.

2. Analysis and evaluation of V4 cooperation

The size and role of the four countries forming the Visegrad Group is different. Poland is considered the leader, mainly due to the fact that it is the largest country among the group members. In addition, this kind of situation may be suggested by calculations regarding the power of the state (table 1), which were carried out using the model of M. Sułek [4]:

$$P_d = D \cdot L \cdot p$$

where:
P_d – general power,
D – GDP,
L – population,
p – area of the country.

Table 1 Power of the Visegrad Group countries (data for 2017)

Indicator / country	Poland	Czech Republic	Slovakia	Hungary
GDP (in billion USD)	524,5	215,7	95,8	139,1
Population (in millions)	38	10,6	5,4	9,8
Area (in thousand km²)	312,679	78,866	49,035	93,030
The power of the state	6232005,1	180 320,8	25 366,8	126 816,6

Source: Own study based on: [3]

Some say that Poland may join the European powers in the future, as can be demonstrated by cooperation between Poland and Germany and France [5]. However, such close relations between states may be the result of concerns of the governments of Berlin and Paris against the emergence of a strong regional organization. It is remarkable that in the EU Council, V4 votes are almost equal to the total number of votes of Germany and France [6]. Perhaps it is not surprising that Germany willingly takes part in meetings of the Visegrad Group as an observer [7].

The disproportions between individual V4 members are to be eased by convergence, which in this case refers to geographical features and similar problems. The intention is ultimately to bring the economic level of the EU Member States closer.

After the change of the political system, there was an economic recession in the Visegrad countries, the consequences of which are visible to this day. A stable, strong economy definitely strengthens the cooperation between the allies. However, in the case of foreign trade, the region was limited by the Slovakian euro and high inflation in Hungary. All four countries depend on foreign capital and investment, which also hinders cooperation in this area. In addition, competition is visible at the level of struggle for foreign capital. The level of intra-regional trade is low, there is no predictable system of foreign trade, there is also a lack of incentive for trade between V4 countries. Noteworthy are the relations between the Czech Republic and Slovakia, which are lively, but this is not related to the fact of belonging to the Visegrad Group, but to the historical unity of both states.

The V4 countries also maintain relations with other entities, and it is worth noting that they are stronger than those between them, e.g. Czech-German / Austrian; Hungarian-Austrian / Croatian / Slovenian, or Polish cooperation with the Baltic countries.

As it was mentioned earlier in 2004, there was a breakthrough in relations between the V4 countries. Then, in addition to joining the EU and NATO, the "New Visegrad Declaration" was created. It identifies four areas of cooperation to which they belong [8]:

- cooperation in the area of V4 - includes culture, education, student exchange, science, infrastructure and the environment. The strengthening of the civic dimension of cooperation within the framework of the International Visegrad Fund and its structures, cross-border cooperation and Schengen is continued. In addition, there is an exchange of experiences in the area of foreign development assistance policy and views on possible cooperation in the field of labor policy and social policy. There are also new aspects such as the fight against terrorism, organized crime and illegal migration, disaster management, and the defense and armaments industries;
- cooperation within the EU - it is an active contribution to the development of the Common Foreign and Security Policy, including the policy "Wider Europe - New Neighborhood" and the EU strategy towards the Western Balkans, as well as deepening the substantive dialogue between the European Union and NATO. Within this aspect, there are consultations, cooperation on current issues of mutual interest, as well as exchange of experience in the field of justice and home affairs, Schengen cooperation, including the protection and management of EU external borders, and visa policy. In addition, the states declared the creation of new opportunities and forms of economic cooperation within the European Economic Area and consultations on domestic preparations for accession to the Economic and Monetary Union;
- cooperation with other partners - which are entities with interests in the countries of Central Europe. It refers to cooperation with other regional structures and candidates from the EU and NATO as well as countries aspiring to support reforms necessary for their development. This area also concerns the European and Euro-Atlantic perspectives and cooperation in the effective implementation of cooperation programs between these countries with the EU and NATO;
- cooperation within NATO and other international organizations - it includes cooperation and consultations within NATO and its defense capabilities; strengthening transatlantic solidarity and cohesion; and cooperation based on the V4 experience to promote a common understanding of security among countries aspiring to European and Euro-Atlantic institutions. Enhanced cooperation within the international community in the area of new security-related challenges, with particular emphasis on combating international terrorism. Cooperation and consultation in the OSCE are extremely important in matters of common concern for the V4 countries, as

well as information exchange in international organizations (UN, Council of Europe, OECD, etc.). Possible support for applications in international organizations and bodies is also considered here.

According to one of the last reports: "Since 1989, Germany has become the most important trade and investment partner for the V4 countries (...). The countries of the Visegrad Group have become the most important global partner of Germany in both export and import "[9].
In connection with the above, it can be stated that the V4 countries are strongly integrated with the European Union, in particular with Germany. Unfortunately, this integrity is not so visible in the case of relations between them. As a group it plays an important role in stimulating the economy and development of the EU, mainly after Brexit. An example is the fact that in 2016, the V4 developed new ways of cooperation with the EU in the areas of energy policy, regional defense and security, the digital economy (for example e-commerce, industry digitization, cyber security or e-government development). However, in the V4, economic, commercial and investment relations are weak and there are no signs of their strengthening. The Visegrad Group is mainly based on political cooperation, not economic cooperation and does not implement its own joint economic projects. The fact that the "Program of the Polish Presidency in the Visegrad Group for 2016-2017" does not contain any economic and / or financial data is rather eloquent. The program is ambiguous and does not go beyond regular and ad hoc consultations among high-level politicians, moreover, it is limited to meetings and videoconferences and the preparation of common unofficial documents that are key to the V4.

It is worth noting the worldview differences that divide the V4 leaders. The Visegrad Group can be described as four countries with at least three different positions. It seems that Poland and Hungary are following a different path of development than the Czech Republic and Slovakia. These differences seem to deepen. The V4 states announced different goals and preferences regarding foreign policy, common currency, defense, security, economic policy, energy policy, etc.

Some of these differences are clearly defined; others are hidden in increasingly diverging strategies. Polish leaders, for example, stress the importance of reducing energy dependence on Russia [10]. In turn, Hungarian leaders declare their willingness to cooperate in the field of nuclear energy with Russia [11].

Poland is vigorously lobbying for the deployment of NATO military bases on its territory, which will alienate other leaders of the V4 countries. In turn, the Czech Republic and Slovakia show strong pro-Russian sentiment and oppose the increase in defense spending. Polish leaders manifest their ambitions related to the development of a large European gas hub. Hungarian leaders are delaying the construction of the connection with Slovakia, causing a significant delay in the entire North-South gas

project, which is necessary to supply gas to Ukraine. Issues of minority rights are also caused by political tensions between the V4 elites. The government in Budapest supports Hungarians living in Slovakia (e.g. by introducing dual citizenship), generating tensions in bilateral relations with Bratislava. These examples help to explain weak economic relations within the V4. Joint economic projects have little chance of success in the presence of increasingly diverging political views.

An important step in building a common economic platform was the "Warsaw Declaration" adopted at the CEE Innovators Summit in Warsaw on 28 March 2017. The Declaration of Kroměříž of 12 May 2004 on the cooperation of the Visegrad Group countries after its accession to the Union was recalled European Union. The recent meetings of the Polish presidency of the Visegrad Group were also important: meeting of ministers responsible for cohesion policy and economy of the V4 countries of 14 July 2016 and meeting of ministers responsible for telecommunications and heads of national V4 regulators on February 6, 2017 who adopted a joint document on the European Electronic Communications Code [12].

The commitments entered into in the Memorandum of Understanding on the "regional start-up platform" and in the Memorandum of Understanding on Enterprises in Central and Eastern Europe in the field of digitization were confirmed. In addition, attention was drawn to the need to seek sustainable development by deepening cooperation in the field of modernization of V4 national economies in the areas of entrepreneurship, research and innovation, digital affairs and implementation of the Europe 2020 strategy [13].

As the global economy is rapidly undergoing a digital transformation in which information plays an important role, in connection with this, the representatives of the Visegrad Group notice the need for investment in modern technologies and human capital based on knowledge. These elements will transform the V4 society, and the creation of innovations will be much easier. The integrity of the data will ensure that adequate protection of personal data is ensured. The development of visions is based on the participation of all countries and joint activities in order to take advantage of the opportunities and meet the changing challenges faced by digital innovation economies.

The "Warsaw Declaration" is intended to promote the Visegrad region in the international arena as a research and innovation center, cooperating in areas where common interests can be identified. Deepen the existing cooperation in the field of research, technology, innovation and digital issues, in particular with the use of EU funds. In addition, it was found that an important element would be the sharing of best practices and expertise to create successful innovations and business models. Members of the Visegrad Group also noticed that an important element is

joint promotion and public presentation of the most successful innovative projects supported by R & D & I programs [13].

An important element for the V4 will be the revitalization of cooperation within the V4 taskforce through permanent regular meetings devoted to various priority themes, which will make it an effective institutional tool to create a solid basis for increased joint efforts in research and innovation. Attention was also paid to the need to strengthen and expand regional innovation clusters and support innovation and digital ecosystems within the existing national and EU funding mechanisms and joint research, development and innovation projects in order to gain access to capital and faster and more effective commercialization [13].

The meeting also established that cooperation should facilitate the implementation of joint research, development and innovation projects, including through the allocation of a special budget line under the International Visegrad Fund for grants for research, development and innovation available to the scientific and business community. Another important aspect is to ensure the transformation of innovative start-ups into successful enterprises through the use of capital, knowledge and networks, and joint efforts to promote innovative start-up companies at the international level. The meeting participants agreed that an important element would be the support of small and medium-sized enterprises in the field of introducing innovations, digital technologies and participation in Industry 4.0 projects. In addition, attention was paid to the support of programs at the regional and national level aimed at increasing IT and digital skills in all groups of people at all levels of education.

It is also important to secure the adoption of digital technologies and services whose task is to support economic data at the national and regional level. In addition, the task facing V4 is to address issues that could hinder the free flow of data and, in addition, hamper the development of companies that can compete on the global market. It also stressed the need to coordinate activities aimed at increasing the competitiveness, innovation and digitization of V4 countries and to coordinate positions at EU level in the field of research and innovation and agreeing to regular meetings to make progress in this field.

3. Conclusions
The world is inevitably evolving and will not wait until the countries of the Visegrad Group are as technologically advanced as the rich Western countries. Innovations change the economy in almost every aspect of it. Therefore, the members of the V4 must implement a policy that will support the R & D sphere and the development of innovative products. Unfortunately, this is an area which in the countries of the Visegrad Group requires a lot of attention, because the financing of these elements does not allow to think about these countries as supporting innovative activity and promoting innovation policy.

The above considerations are important from the point of view of the analyzed problem, as they characterize the V4, as a union of states that strives to create a consolidated group developing their countries' economies on the basis of appropriate political and economic relations. These relations may indirectly constitute one of the factors affecting even the innovativeness or competitiveness of the economies of the Visegrad Group countries.

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COST OPTIMIZATION OF ACTIVITY NETWORK OF INFORMATION SYSTEM

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Abstract: *Increase of efficiency of designing of information systems is an actual problem. In this paper methods of linear programming and network system of planning and control are used to define a critical path and optimal solution of the mathematical model of optimization of cost performance of a complex of works at creation of information system of the organization. To solve the problem, developed an activity network and found an optimal plan of mathematical model of minimum cost performance of a complex of works under specified conditions. The results of research allow to reduce financial expenses at designing information systems of the organizations.*

Keywords: *information system, activity network, critical path, mathematical model, optimum decision, direct expenditures*

1. Introduction

Development of information systems is a priority direction. Information systems are based on hardware and the software. Increase of efficiency of designing of information systems is an actual problem [1-4]. To solve the problem, use the methods of operations research. Mathematical models allow to investigate the phenomena, processes and objects of a subject domain with the least financial expenses [5-24]. This paper discusses the cost optimization of activity network when creating the information system of the organization.

2. Statement of problem

Develop network model performing complex work when creating the information system of the organization and optimize the network diagram. Define activity start time and activity finish time of the network diagram with the lowest cost performance of a complex of works. Activity execution time greater than or equal to the minimum time and less than or equal to the maximum time. Start time of next activity is greater than or equal to the finish time of the previous activity. Time to complete complex of works does not exceed a specified time limit.

3. Development of activity network and mathematical model

The list of stages of performance of works and time is defined for creation of the activity network. The maintenance and time of performance of network activities are resulted in table 1.

Table 1 List and time of network activities

Activity code	Statement of activity	Minimal time $t_{ij}^{\min}$	Maximal time $t_{ij}^{\max}$
1-2	Development of technical specification. Development of technical design. Coordination of technical specification with technical design. Adoption of technical specification. Adoption of technical design	7	13
2-3t	Inspection and analysis of administrative buildings of management in Kurgan	4	7
2-4t	Inspection and analysis of administrative buildings of management in regional departments	6	10
3-5	Realization of groundwork in management in Kurgan	2	4
4-5	Realization of groundwork in regional departments	4	6
5-6	Development of structure of computer network. Choice and justification of network architecture of computer network. Choice of satellite Internet provider. Purchase of computation, network equipment. Purchase of satellite equipment. Purchase of software	8	14
6-7	Delivery of computation, network equipment into management. Delivery of satellite equipment into management in Kurgan. Delivery of software into management	5	8
6-8	Delivery of equipment into regional departments. Delivery of satellite equipment into regional departments. Delivery of software into regional departments	9	13
7-9	Installation of computer network in management. Installation of satellite equipment in management. Connection of network equipment in management in Kurgan. Connection of satellite equipment in management in Kurgan. Software installation in management in Kurgan	25	34
8-9	Installation of computer network in regional departments. Installation of satellite equipment in regional departments. Connection of computer network in regional departments.. Connection of satellite equipment in regional departments. Software installation in regional departments. Hardware setup in regional departments	31	43
9-10	Personnel training. Computer system testing. Personnel examining. Acceptance of information system into service	9	15

The activity network is shown in figure 1. Arrows of the activity network have two numerical values: maximal time of network activity $t_{ij}^{\max}$ and minimal time of network activity $t_{ij}^{\min}$.
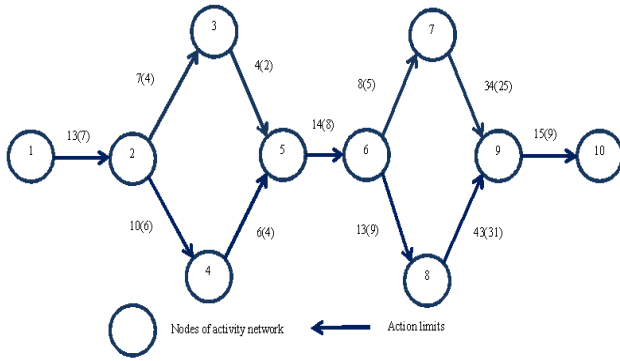
Figure 1. The activity network

Time parameters of events of the activity network count for definition of a critical path.

Earliest expected event time is calculated according to the formula

$$ES_j = \max_{i,j}\{ES_i + t_{ij}\}$$

where, ES_j = earliest expected time of event j and ES_i = earliest expected time of event i and t_{ij} = time of network activity i, j.

Latest event occurrence time is calculated according to the formula

$$LC_i = \min_{i,j}\{LC_j - t_{ij}\}$$

where, LC_i = latest occurrence time of event i and LC_j = latest occurrence time of event j.

The algorithm of critical path includes stages.

1 Stage. Earliest expected time of event i is equal to latest occurrence time of event i.

$$ES_i = LC_i$$

2 Stage. Earliest expected time of event j is equal to latest occurrence time of event j.

$$ES_j = LC_j$$

3 Stage. Difference between earliest expected time of event j and earliest expected time of event i is equal to difference between latest occurrence time of event j and latest occurrence time of event i. Difference between latest occurrence time of event j and latest occurrence time of event i is equal to time of network activity i, j.

$$ES_j - ES_i = LC_j - LC_i = t_{ij}$$

Let $t_{ij}^{\min}$ be minimal time of network activity i, j. Let $t_{ij}^{\max}$ be maximal time of network activity i, j. Let t_{ij}^{H}

be activity start time. Let t_{ij}^{O} be activity finish time. Let $c_{ij}^{\min}$ be minimal expenses. Let $c_{ij}^{\max}$ be maximal expenses. Let T_{cr} be time of critical path. Let T_{dir} be directive time. Let n be quantity of nodes of the activity network. Additional cost factor is determined by the formula.

$$k_{ij} = \frac{c_{ij}^{\max} - c_{ij}^{\min}}{t_{ij}^{\max} - t_{ij}^{\min}}$$

where, $t_{ij}^{\min}$ = minimal time of network activity i, j and $t_{ij}^{\max}$ = maximal time of network activity i, j and $c_{ij}^{\min}$ = minimal expenses and $c_{ij}^{\max}$ = maximal expenses.

Let $T_{cr} < T_{dir}$. Cost of performance of network activity i, j is calculated according to the formula

$$c_{ij} = c_{ij}^{\max} - k_{ij}(t_{ij} - t_{ij}^{\min}) = b_{ij} - k_{ij}(t_{ij}^{O} - t_{ij}^{H})$$

where, $c_{ij}^{\max}$ = maximal expenses and $t_{ij}^{\min}$ = minimal time of network activity i, j and k_{ij} = additional cost factor and t_{ij} = activity execution time,. $t_{ij}^{\min} \le t_{ij} \le t_{ij}^{\max}$ and b_{ij} = parameter, $b_{ij} = c_{ij}^{\max} + k_{ij}t_{ij}^{\min}$ and t_{ij}^{O} – activity finish time and t_{ij}^{H} – activity start time..

The mathematical model of cost optimization of the activity network looks like.

$$\min \leftarrow Z = \sum_{i,j} c_{ij}$$

under restrictions

$$\begin{cases} t_{ij}^{\min} \le t_{ij}^{O} - t_{ij}^{H} \le t_{ij}^{\max} \\ t_{ij}^{O} \le t_{jr}^{H} \\ Tcr \le Tdir \\ t_{ij}^{O} \ge 0, t_{ij}^{H} \ge 0, i = \overline{1, n-1}, j = \overline{2, n} \end{cases}$$

First restriction – limitation on the duration of activity i, j. Second restriction – restriction on sequence of performance of activity i, j. Third restriction – restriction on performance of a complex of activities.

4. The decision of problem

Earliest expected event times and latest event occurrence times are calculated to determine the critical path network diagram.

$ES_1 = 0$;

$$ES_2 = \max_{i,2}\{ES_1 + t_{12}\} = \max_{i,2}\{0+13\} = 13;$$

$$ES_3 = \max_{i,3}\{ES_2 + t_{23}\} = \max_{i,3}\{13+7\} = 20;$$

$$ES_4 = \max_{i,4}\{ES_2 + t_{24}\} = \max_{i,4}\{13+10\} = 23;$$

$$ES_5 = \max_{i,5}\{ES_3 + t_{35}; ES_4 + t_{45}\} =$$
$$\max_{i,5}\{24; 29\} = 29;$$

$$ES_6 = \max_{i,6}\{ES_5 + t_{56}\} = \max_{i,6}\{29+14\} = 43;$$

$$ES_7 = \max_{i,7}\{ES_6 + t_{67}\} = \max_{i.7}\{43+8\} = 51;$$

$$ES_8 = \max_{i,8}\{ES_6 + t_{68}\} = \max_{i,8}\{43+13\} = 56;$$

$$ES_9 = \max_{i,9}\{ES_7 + t_{79}; ES_8 + t_{89}\} =$$
$$\max_{i,9}\{51+34; 56+43\} = \max_{i,9}\{85; 99\} = 99;$$

$$ES_{10} = \max_{i,10}\{ES_9 + t_{910}\} = \max_{i,10}\{99+15\} = 114.$$

$$LC_{10} = 114;$$

$$LC_9 = \min_{9,j}\{LC_{10} - t_{910}\} = \min_{9,j}\{114-15\} = 99;$$

$$LC_8 = \min_{8,j}\{LC_9 - t_{89}\} = \min_{8,j}\{99-43\} = 56;$$

$$LC_7 = \min_{7,j}\{LC_9 - t_{79}\} = \min_{7,j}\{99-34\} = 65;$$

$$LC_6 = \min_{6,j}\{LC_8 - t_{68}; LC_7 - t_{67}\} =$$
$$\min_{6,j}\{56-13; 65-8\} = \min_{6,l}\{43; 57\} = 43;$$

$$LC_5 = \min_{5,j}\{LC_6 - t_{56}\} = \min_{5,j}\{43-14\} = 29;$$

$$LC_4 = \min_{4,j}\{LC_5 - t_{45}\} = \min_{4,j}\{29-6\} = 23;$$

$$LC_3 = \min_{3,j}\{LC_5 - t_{35}\} = \min_{3,j}\{29-4\} = 25;$$

$$LC_2 = \min_{2,j}\{LC_3 - t_{23}; LC_4 - t_{24}\} =$$
$$\min_{2,j}\{25-7; 23-10\} = \min_{2,j}\{18; 13\} = 13;$$

$$LC_1 = \min_{1,j}\{LC_2 - t_{12}\} = \min_{1,j}\{13-13\} = 0.$$

Critical action limit 1-2:
$$ES_2 - ES_1 = LC_2 - LC_1 = t_{12} = 13-0 = 13.$$
Critical action limit 2-4:
$$ES_4 - ES_2 = LC_4 - LC_2 = t_{24} = 23-13 = 10.$$
Critical action limit 4-5:
$$ES_5 - ES_4 = LC_5 - LC_4 = t_{45} = 29-23 = 6.$$
Critical action limit 5-6:
$$ES_6 - ES_5 = LC_6 - LC_5 = t_{56} = 43-29 = 14.$$

Critical action limit 6-8:
$$ES_8 - ES_6 = LC_8 - LC_6 = t_{68} = 56-43 = 13.$$
Critical action limit 8-9:
$$ES_9 - ES_8 = LC_9 - LC_8 = t_{89} = 99-56 = 43.$$
Critical action limit 9-10:
$$ES_{10} - ES_9 = LC_{10} - LC_9 = t_{910} = 114-99 = 15.$$

The activity network with critical path and time parameters of events is shown in figure 2.
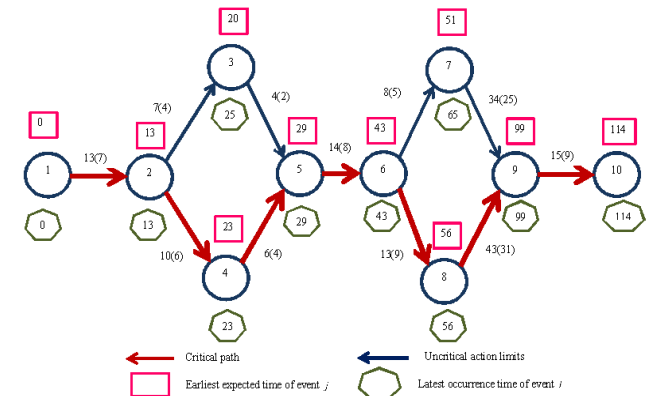
Figure 2 Activity network with critical path

The critical path of activity network 1–>2–>4–>5–>6–>8–>9–>10 is represented by red color. Earliest expected event times are represented in squares of pink color. Latest event occurrence times are represented in hexagons of green color. Time of a critical path is $T_{cr} = 114$ days.

The source data are presented in table 2.

Table 2 The source data

Activity code	Minimal time t_{ij}^{min}	Maximal t_{ij}^{max}	Minimal expenses c_{ij}^{min}	Maximal expenses c_{ij}^{min}	Additional cost factor k_{ij}	Parameter b_{ij}
1-2	7	13	13	25	2	39
2-3	4	7	4	10	2	18
2-4	6	10	10	18	2	30
3-5	2	4	5	11	3	17
4-5	4	6	11	17	3	29
5-6	8	14	5	29	4	6
6-7	5	8	6	15	3	30
6-8	9	13	4	16	3	43
7-9	25	34	53	125	8	325
8-9	31	43	60	252	16	748
9-10	9	15	7	19	2	37

Mathematical model of cost optimization of activity network looks like

$$\min \leftarrow Z = \sum_{ij} c_{ij} = 39 - 2(t_{12}^O - t_{12}^H) + 18 - 2(t_{23}^O - t_{23}^H) +$$

$$30 - 2(t_{24}^O - t_{24}^H) + 17 - 3(t_{35}^O - t_{35}^H) + 29 - 3(t_{45}^O - t_{45}^H) +$$

$$61 - 4(t_{56}^O - t_{56}^H) + 30 - 3(t_{67}^O - t_{67}^H) + 43 - 3(t_{68}^O - t_{68}^H) +$$

$$325 - 8(t_{79}^O - t_{79}^H) + 748 - 16(t_{89}^O - t_{89}^H) +$$

$$37 - 2(t_{910}^O - t_{910}^H) = -2t_{12}^O - 2t_{23}^O + 2t_{23}^H - 2t_{24}^O + 2t_{24}^H -$$

$$3t_{35}^O + 3t_{35}^H - 3t_{45}^O + 3t_{45}^H - 4t_{56}^O + 4t_{56}^H - 3t_{67}^O + 3t_{67}^H -$$

$$3t_{68}^O + 3t_{68}^H - 8t_{79}^O + 8t_{79}^H - 16t_{89}^H -$$

$$2t_{910}^O + 2t_{910}^H + 1377x_{22}$$

under restrictions

$$\begin{cases} 7 \leq t_{12}^O - t_{12}^H \leq 13; \, 4 \leq t_{23}^O - t_{23}^H \leq 7; \, 6 \leq t_{24}^O - t_{24}^H \leq 10; \\ 2 \leq t_{35}^O - t_{35}^H \leq 35; \, 4 \leq t_{45}^O - t_{45}^H \leq 6; \, 8 \leq t_{56}^O - t_{56}^H \leq 14; \\ 5 \leq t_{67}^O - t_{67}^H \leq 8; \, 9 \leq t_{68}^O - t_{68}^H \leq 13; \, 25 \leq t_{79}^O - t_{79}^H \leq 34; \\ 31 \leq t_{89}^O - t_{89}^H \leq 43; \, 9 \leq t_{910}^O - t_{910}^H \leq 15; \\ t_{12}^O \leq t_{23}^H; \, t_{12}^O \leq t_{24}^H; \, t_{23}^O \leq t_{35}^H; \, t_{24}^O \leq t_{45}^H; \, t_{35}^O \leq t_{56}^H; \\ t_{45}^O \leq t_{56}^H; \, t_{56}^O \leq t_{67}^H; \, t_{56}^O \leq t_{68}^H; \, t_{67}^O \leq t_{79}^H; \, t_{68}^O \leq t_{89}^H; \\ t_{79}^O \leq t_{910}^H; \, t_{89}^O \leq t_{23}^H; \\ t_{910}^O \leq T_{dir}; \, t_{ij}^H \geq 0; \, t_{ij}^O \geq 0; \, i = \overline{1, n} - 1, \, j = \overline{2, n}. \end{cases}$$

The optimum decision of mathematical model is presented in table 3.

Table 3 Optimum decision of mathematical model

Item number	Parameter	Variable	Value	Dual estimation
1	t_{12}^O	x_1	13,0000	0,0000
2	t_{23}^H	x_2	18,0000	0,0000
3	t_{23}^O	x_3	25,0000	0,0000
4	t_{24}^H	x_4	13,0000	0,0000
5	t_{24}^O	x_5	23,0000	0,0000
6	t_{35}^H	x_6	25,0000	0,0000
7	t_{35}^O	x_7	29,0000	0,0000
8	t_{45}^H	x_8	23,0000	0,0000
9	t_{45}^O	x_9	29,0000	0,0000
10	t_{56}^H	x_{10}	29,0000	0,0000
11	t_{56}^O	x_{11}	43,0000	0,0000
12	t_{67}^H	x_{12}	57,0000	0,0000
13	t_{67}^O	x_{13}	65,0000	0,0000

14	t_{68}^H	x_{14}	43.0000	0,0000
15	t_{68}^O	x_{15}	56,0000	0,0000
16	t_{79}^H	x_{16}	65,0000	0,0000
17	t_{79}^O	x_{17}	99,0000	0,0000
18	t_{89}^H	x_{18}	56,0000	0,0000
19	t_{89}^O	x_{19}	99,0000	0,0000
20	t_{910}^H	x_{20}	99,0000	0,0000
21	t_{910}^O	x_{21}	114,0000	0,0000
22	–	x_{22}	1,0000	0,4300

Minimum of criterion function $Z = 178$. Number of iterations 35

Optimized network diagram on time of performance of the activities is resulted in figure 3.
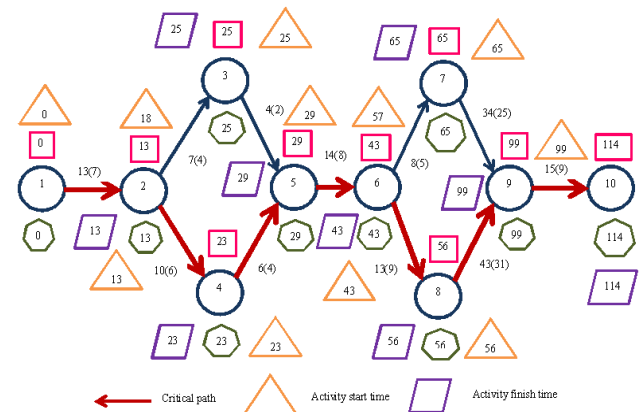
Figure 3 Optimized activity network of information system

Activity start times are represented in a triangle of yellow color. Activity finish times are represented in a parallelogram of lilac color.

To execute a complex of network activities with the minimal cost of 178 units it is necessary to change activity start time and activity finish time of activities 2,3 and 5,6 to 5 and 14 days accordingly: $t_{23}^{HOld} = 13 -> t_{23}^{HNew} = 18$,

$t_{23}^{oOld} = 20 -> t_{23}^{oNew} = 25$, $t_{67}^{HOld} = 43 -> t_{67}^{HNew} = 57$,

$t_{67}^{oOld} = 51 -> t_{67}^{oNew} = 65$.

5. Results of research

The results of the research allow us to draw the following conclusions.

1. The network model of information system is developed.
2. Time parameters of events of the activity network are calculated.
3. Critical path of network diagram is defined by Kelley-Walker's method.
4. The optimal solution of mathematical model defined by the linear programming's method.

5. Application of the received results allows to reduce financial expenses and to raise validity of the made decision at designing information systems of the organizations.
6. The received results can be used in the further researches on the this topic.

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ZEOLITE AND BIOCHAR AS SORPTION MATERIAL FOR POST-TREATMENT OF PHARMACEUTICALS FROM WASTEWATER

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Abstract: *The presence of pharmaceuticals in the environment has been recognized as a potential environmental risk. The thesis focuses on the comparison of the removal of micropollutants in the tertiary stage of wastewater treatment plant. Laboratory experiments were based on sorption tests with the natural zeolite from Zeocem and pyrolysis waste of the willow trees - biochar. The results show that a better removal of the monitored micropollutants was achieved by zoolite and up to 71.4% of the total drug concentration. For biochairs, the removal efficiency was 41.1%.*

Keywords: *biochar, zeolites, micropollutants,*

1. Introduction

Chemical compounds can be a risk for health of people and another living organisms [1]. Better removal of micropollutants from effluents wastewater treatment plant depends on primary and tertially treatment. Synder et al. [2] found out that adding powder active carbon into tertially settling tank effectively removes micropollutants. One of the most used sorbent material in praxis is active carbon, but its disadvantage is high production and regeneration costs. The alternative sorbents can be for example zeolite with a bigger specific surface area or biochar [3]. A natural zeolite is rich source of aluminosilicates available worldwide and has a generally high cation exchange capacity [4]. However, not all zeolites have the universal ability to absorb a wide range of organic or inorganic substances. Biochar, the solid material formed during the thermochemical decomposition of biomass, is defined as solid material obtained from the carbonization of biomass. As biochar is inexpensive, environment-friendly, and can be used for a variety of purposes, such as soil remediation, waste management, greenhouse gas reduction, and energy production [5].

The aim of this thesis is comparison of an effective removal of micropollutants by different adsorbents (zeolite, biochar) from effluent of wastewater treatment plant.

2. Work Methodology

A sorption test was realized in laboratory conditions with effluent from wastewater treatment plant Stupava. This sample was used to realize the sorption test by using Slovak natural zeolite from company Zeocem and with biochar produced by pyrolysis of willow. There were 5g of zeolite (fraction 0,5 -1 mm with specific surface is 44 – 46 m^2/g) or 5g of biochar (specific surface is 50 m^2/g) added into 200 ml effluent wastewater. After 30 min of mixing and sent for analysis of pharmaceuticals and drugs.

2.1 Pharmaceutical and drugs analysis

The samples were filtered through a 0.45 μm cellulose membrane filter. Before HPLC / MS / MS analysis, a mixture of isotopes labelled internal standards was added to 10 ml of the sample. For a detection of pharmaceutical products, SPE liquid chromatography combined with a hybrid quadrupole-Orbitrap with a high resolution detector was used.

3. Result and discussion

In effluent from wastewater treatment plant 96 pharmaceuticals with different type of therapeutic compounds were analyzed of which 45 were drugs below the detection limit. A table 1 summarizes measured concentrations (above the detection limit) from a start test and after 30 min. of mixing with zeolite or biochar and the percentage of the substance removal.

From the Table 1 we can consider, that micropollutants were better removed by zeolite, its effectiveness was 71,4% of the total drug concentration and the effectiveness with biochar was only 41,1%.

The zeolites were able to remove up to 13 drugs above the level of 80%. This group includes drugs such as: Verapamil, Glimepiride, Citalopram, Clarythromycine, Azythromycine and Bisoprolol. 20 drugs were removed at 50-80%. The drugs like Cathione, Caffeine, Norketamine showed a phenomenon called deconjugation - a rise in drug concentration caused by the re-aggregation of previously degraded drug derivatives into the original substance.

Biochar as the sorption material removed only 7 drugs below 80%, as follows: N-desmethylcitalopram, Glimepiride, Glimeclamide, Diphenhydramine, Clindamycine sulfoxide, Clarythromycine and Azythromycine. 15 compounds were removed at 50 -80% and deconjugation showed up to 9 drugs. These include, in addition to Cathion and Caffeine, Benzoylekgonine, Mefedron, MDEA and others.

Table 1 The resulting concentrations of zeolite and biocharge sorption test with wastewater from Stupava WWTP

Compounds	Effluent from Stupava	Zeolite 30 min of sorption	Removal	Biochar 30 min of sorption	Removal
	ng/l	ng/l	%	ng/l	%
Alfuzosin	5,4	0,81	85,0	1,1	79,6
Alprazolam	3,8	2,6	31,6	<1,5	60,5
Atenolol	24	6,4	73,3	23	4,2
Atorvastatine	25	11	56,0	25	0,0
Azitromycine	520	<2,2	99,6	<3,2	99,4
Benzoylekgonine	37	29	21,6	41	-10,8
Bisoprolol	160	28	82,5	72	55,0
Caffeine	75	470	-526,7	740	-886,7
Carbamazepine (CBZ)	450	370	17,8	370	17,8
Cathione	8,7	13	-49,4	160	-1739
Cetirizine	520	150	71,2	120	76,9
Citalopram	70	<1,5	97,9	<2,7	96,1
Clarithromycine	2200	280	87,3	190	91,4
Clindamycine	240	66	72,5	55	77,1
CLS*	410	80	80,5	210	48,8
Cocaine	4,2	1	76,2	1,6	61,9
Codeine	59	18	69,5	40	32,2
Diclofenac	14000	3800	72,9	10000	28,6
Diphenhydramine	4,2	<0,42	90,0	<0,76	81,9
Epoxy CBZ	49	35	28,6	31	36,7
Erythromycine	16	5,3	66,9	3,6	77,5
Fexofenadine	1700	360	78,8	170	90,0
Glibenclamide	8,1	<0,58	92,8	<1,1	86,4
Glimepiride	3	<0,56	81,3	<1	66,7
Iopromid	540	220	59,3	180	66,7
MDEA	8,1	2,8	65,4	11	-35,8
Meclozine	10	7	30,0	12	-20,0
Mefedrone	24	<17	29,2	<41	-70,8
Metadone	330	75	77,3	190	42,4
Metoprolol	660	520	21,2	600	9,1
Miconazole	10	<4,5	55,0	<15	-50,0
Mirtazapil	18	7,3	59,4	18	0,0
N4A*	36	34	5,6	55	-52,8
NDC*	31	1,7	94,5	<1,4	95,5
Norketamine	4,8	4,9	-2,1	<3,4	29,2
ODV*	4,8	<0,82	82,9	3,2	33,3
Orphenadrine	320	50	84,4	79	75,3
Oxazepam	18	16	11,1	15	16,7
Oxcarbazepine	56	45	19,6	28	50,0
Oxykodone	75	32	57,3	29	61,3
Roxitromycine	36	19	47,2	31	13,9
Sulfadiazine	50	21	58,0	54	-8,0
Sulfapyridine	140	82	41,4	57	59,3
Tamoxifen	56	31	44,6	32	42,9
T-D-D-CBZ*	370	130	64,9	280	24,3
Triamteren	1700	730	57,1	620	63,5
Valsartan	140	35	75,0	66	52,9
Venlafaxine	8700	1900	78,2	5300	39,1
Verapamil	89	12	86,5	39	56,2
SUM	**34019**	**9729**	**71**	**20023**	**41**

*CLS – Clindamycín sulfoxide, N4A - N4-Acetylsufamethaxazole, NDC – N-Desmethylcitalopram, ODV - O-Desmethylvenlafaxine, T-D-D-CBZ - trans-dihydro-dihydroxy CBZ

4. Conclusions

The sample of wastewater from Stupava wastewater treatment plant, sorption tests were carried out using zeolites and a biochar. For tests with zeolite was used slovak natural zeolite from company Zeocem and for the tests with biochar we used biochar from pyrolysis of willow.

According to the results of the experiments, 96 drugs (out of which 45 drugs were below the limit of detection) were analysed at the effluent from Stupava wastewater treatment plant, which represented a drug concentration of 34019 ng/l. The highest elimination of micropollutants occurred using the zeolites with a fraction of 0.5 - 1 mm, when up to 71.4% of the total drug concentration was removed, that is in comparison 30.3% more than the removal efficiency using the biochar (41.1%).

Using the zeolites 13 substances were removed above 80%, 20 drugs were eliminated at 50-80%, Cathinone, Caffeine and Norketamine had a deconjugation effect and remaining drugs were removed to less than 50%.

When using a biochar 7 substances were removed at levels above 80%, with 50-80% 15 substances and 9 substances having a deconjugation effect; the remaining substances were removed to less than 50%.

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IMPROVEMENT OF THE MUNICIPAL SEWAGE SLUDGE QUALITY USING ACIDIC AND BASIC EXTRACTION?

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Abstract: Main goal of this study was to identify if the municipal sewage sludge quality can be improved releasing of the pharmaceuticals from the sludge using an acidic and basic extraction. The acidic extraction was realized under pH = 2 and pH = 4. Slightly better desorption/extraction of the pharmaceuticals was detected for pH = 2 with extraction rate 9,3%. However, this condition released phosphorus from the sludge (approximately 10 % phosphorus contained in the original sludge). Basic conditions (pH = 9 and pH = 12) were more suitable for the improvement of the municipal sewage sludge quality. Amount of the extracted pharmaceuticals was greater for pH = 12 than for pH = 2 with extraction rate 16,2%. Simultaneously, basic conditions did not extract phosphorus from the sewage sludge.

Keywords: acidic extraction, basic extraction, municipal sewage sludge, sludge quality

1. Introduction

One of the main problems of the current environmental management is a disposal of the municipal sewage sludge from the wastewater treatment plant (WWTP). The stabilized sludge is arised as a by-product at the WWTP and has valuable agronomic properties. Council Directive 86/278/EEC of 12 June 1986 on the protection of the environment, and in particular of the soil, when sewage sludge is used in agriculture, encourages using this sludge in agriculture soils. This directive also regulates using the sewage sludge to avoid harmful effects on the soil, vegetation, animals and people [1].

The application of the sewage sludge to the soil is the cheapest option for their disposal, the useful fertilizer (due to the content of the organic matter, nitrogen and phosphorus) and soil treatment material (e.g. for an agricultural soil renewal, an increasing the humus content and an increasing water retention capacity in the light sandy soils). However, the sludge concentrates potential contaminants from the wastewater as pesticides, metals and other organic compounds. Among them, pharmaceuticals are group with great interest in recent years [2, 3, 4], because of their potential ecotoxicological risk and their permanent release into the environment. Therefore, European Union include some pharmaceuticals (17α-ethinylestradiol, 17β-estradiol, estrone, erythromycin, clarithromycin, azithromycin, amoxicillin, and ciprofloxacin) in its Commission Implementing Decision (EU) 2018/840 of 5 June. Goal of this decision is to monitor and confirm the risk of these compounds. However, no regulation of the pharmaceutical in the sewage sludge is included in the current European Union legislation [1].

Several studies were focused on the presence of pharmaceuticals in the aerobic and anaerobic stabilized sludge. Studies mostly discussed concentrations of psychiatric pharmaceuticals, antibiotics, anti-inflammatory drugs, fungicides and hormones. Higher pharmaceutical concentrations were detected in the anaerobic stabilized sludge. Some pharmaceuticals were detected above 10,000 ng/g DM. Specifically, it was galaxolid (81,000 ng/g DM), triclocarban (63,000 ng/g DM), triclosan (46,000 ng/g DM), estrone (22,000 ng/g DM) [5]. Nieto et al. [6] investigated the occurrence of acetaminophen, diclofenac and ibuprofen in the sewage sludge over the seasons. They detected that their concentration in the sludge was higher during winter, which agrees with their higher consumption during the winter.

Venkatesen and Halden [7] modelled pH-mediated extraction of the ionizable organic contaminants to improve the quality of the municipal sewage sludge. They developed a partitioning model to assess the impact of the pH on the hydrophobic sorption and revealed that between 36 and 85% of the mass of the individual classes of ionizable organic compounds could be potentially desorbed from municipal sewage sludge via pH adjustment and flushing. Based on this model, 30% of the ionizable organic compounds should be removed under pH <3 and 31% of the ionizable organic compounds should be removed under pH >12.

Therefore, we decided to prove this study and we realized desorption experiments with the municipal sewage sludge from one of the WWTP in Bratislava, Slovakia. Improved quality of the sludge was assessed by the amount of the removed pharmaceuticals from the sewage sludge and by the phosphorus concentration in the remaining sludge after the desorption tests.

2. Material and Methods

2.1 Characterization of the sewage sludge

The municipal sewage sludge from one of the WWTPs in Bratislava, Slovakia, was investigated. It was an anaerobic stabilized sludge and sludge was sampled from the

containers prepared for the transportation. Same volume of the sludge (500 ml) was collected for period of three days and the samples were mixed and homogenized. The pharmaceutical concentrations in the sewage sludge were examined and procedure will be described in part 1.3.

2.2 Characterization of the desorption tests

Desorption tests were realized with homogenized sample of the sewage sludge. Following procedure was used for realization of the desorption tests:

1. 50 grams of the sewage sludge was added to the water with the chosen pH (2; 4; 7; 9; 12) prepared with the addition of 0,5 M KOH or 0,5 M HCl.
2. The sludge solution was mixed for 60 minutes (250 rpm)
3. The sludge solution was filtrated and concentrations of the pharmaceuticals in the filtrate (part 2.3) and concentrations of the phosphorus in the sludge and filtrate (part 2.4) was determined.

2.3 Determination of the pharmaceuticals in the sludge and in the filtrate

Pharmaceuticals were extracted from the sludge using the two-step extraction method described in Golovko et al. [8]. Two grams of the sludge were extracted with 4 ml of acetonitrile/water (1:1 with 0.1% formic acid) and was ultrasounded for 15 minutes and the supernatant was filtered (0,45 μm). In the second step, the procedure was repeated with 4 ml of acetonitrile/2-propanol/water (3:3:4 with 0.1% formic acid). The extracts were mixed, and the pharmaceuticals were determined using LC-MS/MS.
Isotope-labeled internal standards were added to 10 ml filtrate or homogenized extract and analyzed.

All LC-MS/MS analyzes were performed on a TSQ Quantiva triple stage quadrupole mass spectrometer. Chromatographic separation of the samples was realized by a Hypersil gold aQ column (50 mm x 2.1 mm ID x 5 μm particles). A detailed description of the method is given in Linberg et al. [9] and Golovko et al. [8].

2.4 Determination of the phosphorus in the sludge and in the filtrate

Phosphorus accessible for plants (Olsen P) and the total phosphorus was determined in dried sludge after desorption (105 °C; 24 h).

Briefly, approximately 0,5 g of dried sludge ($m_{sludge,extract}$) was weighed in the Erlenmeyer flask and 20 mL of extraction solution ($V_{extract}$; 0,5 M NaHCO$_3$; pH = 8,5) was added. Flasks were shaken at 300 epm for 30 minutes. Phosphorus concentration in the extract ($c_{P,excract}$) was determined [10] and amount of the Olsen P (mg P/kg DM sludge) in the sludge was calculated using the equation (1):

$$Olsen\ P = \frac{c_{P,extract} \cdot V_{extract}}{m_{sludge,extract}} \qquad (1)$$

The total phosphorus was determined using the modified method of Bethold, Zimmer and Schumann [11]. Briefly, approximately 50 mg of dried sludge ($m_{sludge,TP}$) was weighed in the reaction bank, 10 ml of distilled water and 1 ml of acid persulphate solution (5 g $K_2S_2O_8$ and 5 ml 9 N H_2SO_4 in 100 ml bank filled with the distilled water) was added to the reaction bank. Samples were digested at 90 °C for 24 h. Afterwards, all samples were cooled down and concentration of the total phosphorus (c_{TP}) was determined and amount of the total phosphorus in the sludge (TP in mg P/kg DM sludge) was calculated using the equation (2):

$$TP = \frac{c_{TP} \cdot V_{reaction}}{m_{sludge,TP}} \qquad (2)$$

where $V_{reaction}$ is the volume of the added distilled water and acid persulphate solution (together 11 ml).

Concentration of the extracted phosphorus in the filtrate (c_P), concentration of the Olsen P and concentration of the total phosphorus were determined using Murphy and Riley method [10]. Briefly, 50 ml of diluted sample (V_P) with adjusted pH (1 drop of phenolphthalein indicator + 2,5 M H_2SO_4 or 2 M NaOH till change of the color in the sample occurred) was mixed with 8 ml of the combined reagent (50 ml 2,5 M H_2SO_4 + 15 ml of ammonium molybdate solution (20 g to 500 ml) + 30 ml 0,1 M ascorbic acid + 5 ml of potassium antimonyl tartrate (1,3715 g to 500 ml)). The absorbance at 880 nm of each sample was measured after 10 minutes and amount of the phosphorus was calculated from the calibration curve.

Amount of the extracted phosphorus from kg DM sludge (EP in mg P/kg DM sludge) was calculated using equation (3):

$$EP = \frac{c_P}{V_p \cdot TS} \qquad (3)$$

where TS is amount of the total solids in the sludge (g DM sludge/g sludge).

3. Results and Discussion

3.1 Determination of the amount of the removed pharmaceuticals from the sewage sludge

In this study, it was investigated 93 pharmaceuticals and illicit drugs. They were analyzed using the HPLC-MS/MS and 24 compounds were detected at least once in the concentrations higher than detection limit in the sludge and in the filtrate. Amount of the pharmaceuticals in the sludge was in the wide range (4 ng/g DM – 3357 ng/g DM) and 9 investigated compounds were at amount above 100 ng/g DM with maximum for the fexofenadine. Average amount of all pharmaceuticals in the municipal sewage sludge from this investigated WWTP was 6352 ng/g DM.

This sludge was put to the desorption tests with various pH solutions. Extracted amount of the pharmaceuticals depended from used pH solution. Generally, the highest

extracted amount of all pharmaceuticals (1029 ng/g DM) was detected for pH = 12 which represents 16,2 % from original amount. The minimal extracted amount of the pharmaceuticals was detected for pH = 7, which was expected scenario based on the results of the Venkatesen and Halden [7]. Extracted amount of all pharmaceuticals also slightly increased in acidic conditions (9,3 % for pH = 2).

Specific extraction/desorption rates for each investigated compound are summarized in Table 1. Compounds can be divided into following groups based on their desorption behavior:

1. minimal change of the extraction rate (e.g. fexofenadine, citalopram, oxazepam, methadone)
2. maximal extraction rate in the acidic conditions (e.g. azithromycin, valsartan)
3. maximal extraction rate in the basic conditions (e.g. diclofenac, cetirizine, atorvastatin, irbesartan, metoprolol, metoprolol acid, carbamazepine, mirtazapine, alfuzosin)
4. extraction rates high in the strong acidic and basic conditions (e.g. codeine, tramadol, bisoprolol, venlafaxine, methamphetamine).

Table 1 Extraction rates (in %) for the selected pharmaceuticals

Therapeutic group	Compound	pH				
		2	4	7	9	12
Analgesics	Codeine	41	20	23	28	46
	Diclofenac	14	19	13	14	35
	Tramadol	44	66	31	26	53
Antibiotics	Azithromycin	66	20	33	23	2
	Clindamycin	26	16	27	20	5
	Sulfapyridine	5	3	3	3	15
Antihistamines	Cetirizine	17	14	13	14	43
	Fexofenadine	4	4	4	4	10
Cardiacs	Atorvastatin	11	13	10	13	30
	Bisoprolol	43	26	26	25	52
	Irbesartan	25	27	22	25	41
	Metoprolol	29	21	20	20	44
	Metoprolol acid	55	85	76	76	98
	Valsartan	69	44	37	45	51
CNS	Carbamazepine	40	46	36	39	52
	Citalopram	2	1	1	1	2
	Mirtazapine	18	22	21	20	71
	Oxazepam	22	20	22	20	20
	Venlafaxine	49	35	35	36	57
Drugs	MDMA	27	18	18	17	30
	Methadone	5	3	4	3	3
	Methamphetamine	43	32	32	32	46
	THC_COOH	10	15	15	16	24
Urologicals	Alfuzosin	1	1	1	1	39
	Mean	9,3	8,6	6,4	8,1	16,2

3.2 Determination of the concentrations of the phosphorus

A decrease of the pharmaceuticals in the sludge is one of the relevant factors for improving quality of the sewage sludge. However, the extracted amount of the phosphorus together with the remaining phosphorus in the sewage sludge are also important factor to take into consideration. Especially, when the improved sludge will be used in the agriculture.

Amount of the total phosphorus in the sludge, the Olsen phosphorus and the extracted phosphorus are summarized in Figure 1. Minimal, 25th percentile, median, 75th percentile and maximal value of the phosphorus are presented in this figure. An original sludge used for the desorption tests contains approximately 26 000 mg P/kg DM sludge. Concentration of the Olsen phosphorus in this sludge was around 1 000 mg P/kg DM sludge.

Slight decrease of the total phosphorus in the sample was observed for pH = 7 (24 200 mg P/kg DM sludge). However, this decrease of the total phosphorus is within ±15% tolerance limit of the phosphorus in the original sludge. Under conditions used in this experiment, there was not significant change in the concentration of the Olsen phosphorus.
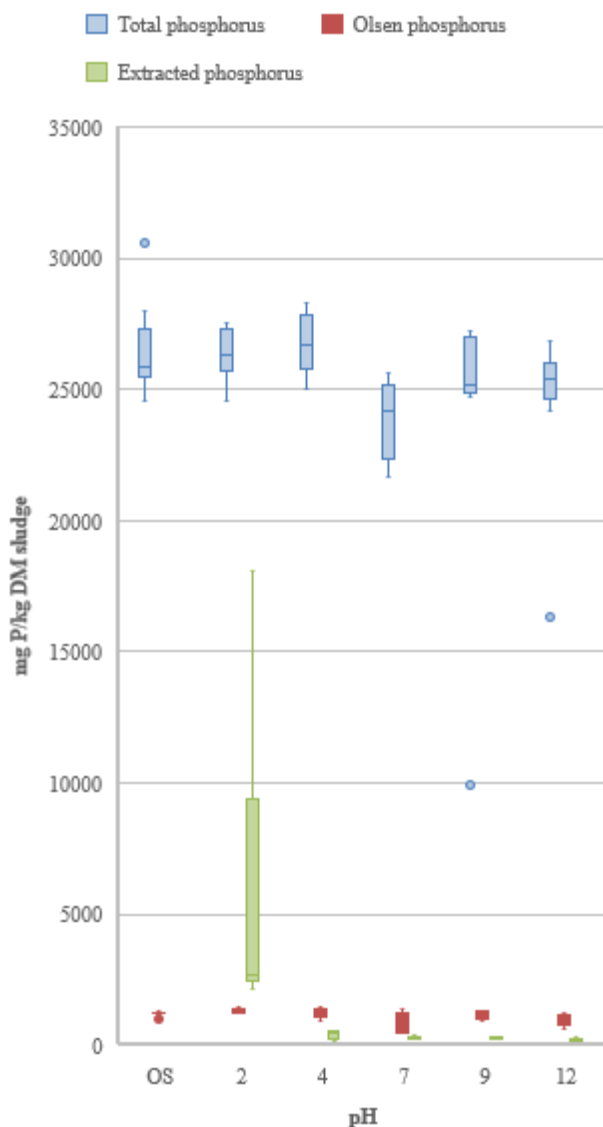
Figure 1: Comparison of the total phosphorus, the Olsen phosphorus and the extracted phosphorus for all investigated pH and comparison of the total phosphorus and the Olsen phosphorus for the original sludge (OS)

The extracted phosphorus was approximately 250 mg P/kg DM sludge under neutral conditions, which represent less than 1% of the phosphorus present in the sludge. An increase of the extracted phosphorus was observed only under the acidic conditions with maximum for pH = 2. Extracted phosphorus range for this pH was wide with minimum 2 100 mg P/kg DM sludge and maximum 18 000 mg P/kg DM sludge. However, median amount of the extracted phosphorus was 2 700 mg P/kg DM sludge (approximately 10 % of the phosphorus present in the original sludge).

4. Conclusion

A slight improvement of the sludge quality was observed using the acidic and basic extraction of the organic compounds from the municipal sewage sludge. Generally,

it was detected 9,3% and 16,2% decrease of all pharmaceuticals for pH = 2 and pH = 12, respectively. However, the acidic extraction increased the extracted phosphorus and therefore, it is necessary to realize more experiments focused on the extraction of the macro-nutrients (phosphorus and nitrogen) from the municipal sewage sludge. Basic conditions did not increase the concentration of the extracted phosphorus in the filtrate and therefore, they are suitable for the improvement of the municipal sewage sludge quality.

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ADSORPTION OF ARSENIC BY GRANULAR FERRIC OXIDE: EQUILIBRIUM AND KINETIC STUDY

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Abstract:

The present study is focused on the isotherms and kinetic studies of arsenic (As(V)) adsorption unto granular ferric oxide (GFO). For As(V) the equilibrium adsorption time was investigated. Nonlinear regression of Langmuir (LI) and Freundlich (FI) isotherms were applied to portray the data obtained from the adsorption studies. From the results of the work it follows, that R^2 value of LI model was the highest. The maximum monolayer coverage (q_{max}) from LI model was determined to be 82.44 µg/g and the separation factor (R_L) indicating a favorable sorption experiment. Also from FI model, the sorption intensity (n) indicates favorable sorption process. The kinetic data was the best described using the pseudo-second order kinetic model ($R^2 > 0.99$). As(V) was efficiently recovered from adsorbent by basic NaOH desorbing solution during one cycle. This study demonstrates the potential of using GFO as an adsorbent to remove As(V) from drinking water.

Keywords: adsorption, arsenic, granular ferric oxide, isotherm models, kinetic models

1. Introduction

Arsenic (As) is the 20th most occurring trace element in the earth's crust, the 14th in seawater, and the 12th in the human body [1]. It is toxic and carcinogenic and nowadays the arsenic occurrence is responsible for many diseases, where it occurs in drinking water. Its exposure to low or high concentrations can be fatal to human health [2]. Arsenic occurs naturally in water usually in the forms of the soluble arsenic species As(III) (arsenite) and As(V) (arsenate). The distribution of arsenic species in natural water is mainly dependent on redox potential (Eh) and pH of the water [3, 4]. The pentavalent arsenic (arsenate) can replace the role and position of phosphate in the human body due to its similar structure and properties with phosphate. Strong epidemiological evidence of arsenic carcinogenicity and genotoxicity has forced the World Health Organization (WHO) to lower the Maximum Contaminant Level (MCL) in drinking water to 10 µg/L from earlier limit of 50 µg/L in 1993 [5, 6]. Different technologies have been used and proposed to remove arsenic from aqueous media. Of these methods, adsorption has been universally accepted as one of the most effective arsenic removal process because of its easy operation and handling, low cost, low consumption of reagents and does not produce sludge and harmful by-products. It is a process in which a soluble chemical (the adsorbate) is removed from a fluid (liquid or gas) by contact with a solid surface (the adsorbent) [1, 7]. In this paper, the possibility of using granular ferric oxide (GFO) to remove arsenic As(V) was investigated using batch adsorption studies. The equilibrium data were analyzed so that we can understand the adsorption mechanism and different equilibrium and kinetic models were applied to fit the experimental data. In addition, the reversibility of As(V) sorption onto GFO was studied by different desorbing agents.

2. Materials and methods

2.1 Reagents and apparatus

All chemicals used in this study were of analytical laboratory grade, being purchased from Merck. All reagents and standards were prepared using distilled water. As(V) stock solution was prepared by dissolving an accurately weighed amount of sodium arsenate hydrate ($Na_2HAsO_4.7H_2O$) in distilled water to achieve a concentration of 1 g/L, and subsequently diluted to the required concentrations. Concentrated HCl solution was used for samples storage. 0.1 M acetic acid (CH_3COOH), sodium hydroxide (NaOH), sodium chloride (NaCl) solutions and distilled water were used as a desorbing agents. All glass and plasticware were cleaned and rinsed with distilled water before use.

2.2 Instruments and software

The shaking in batch experimnets was conducted in a time and RPM controlled orbital shaker (RSLAB-7PRO, Kvant s.r.o., Slovakia). pH was measured by a digital pH meter (Jenway 3510, Cole-Parmer, United Kingdom) with an accurancy of ± 0.003 unit. A high precision electrical balance (ABS 220-4, Kern & Sohn GmbH, Germany) was used for weighing. A PC controlled automatic electrochemical laboratory analyser (EcaFlow Model 150 GLP, Istran s.r.o, Slovakia) was used for quantitative determination of arsenic in solution. Nonlinear regression was used for the data analysis and fitting the values in various models.

2.3 Adsorbent preparation and characterization

A granular ferric oxide (GFO) was obtained from Eurowater s.r.o. (Slovakia) and was used without further purification. It was just rinsed with distilled water to

remove dirties and then oven-dried at 105°C for 24h. Finally, the dried GFO was stored in desiccator for future use. The physical properties of the GFO are shown in Table 1.

Table 1 Physicochemical properties of GFO

Parameter	Value
Fe_2O_3 content	> 70 %
Bulk density	0.4 – 0.6 kg/L
Specific surface area	200 m^2/g
Particle size	0.5 – 2.0 mm
Applicable for water pH range	5 - 10

2.4 Analytical determination

Determination of As(V) was done by flow-through chronopotentiometry with using triple-electrode flow-through measuring cell (type 353c) with work electrode (type E-T/Au), platinum auxiliary electrode and argentochloride reference electrode. Each sample was analyzed more time and calibration was carried out before analysis with a freshly prepared arsenic standard.

2.5 Adsorption and kinetic studies

Adsorption experiments were carried out by batch method at room temperature (20±2 °C). The time dependent behavior of arsenic adsorption was studied by varying the contact time between the adsorbate and adsorbent in the range 0 – 200 min. The 0.1 L solution of As(V) was taken in each Erlenmeyer flask of volume 0.25 L separately. The initial concentration of arsenic was kept at 1000 μg/L, while the dose of GFO was 2 g. These arsenic suspensions were shaking until the equilibrium was reached. At the end of each adsorption experiment, the solution and solid phase were separated by membrane filtration. The filtrate was collected and subjected for As(V) estimation following analytical method. The As(V) concentrations before and after adsorption were recorded, and then the percent (%) value for arsenic adsorption (removal) by the adsorbent was computed by using the following equation:

$$\text{adsorption efficiency (removal)} = \frac{c_i - c_t}{c_i} \times 100$$

where c_i and c_t are the initial and final As(V) concentration in the solution. The adsorption capacity (q_t) of As(V) on adsorbent (μg/g) was calculated using the following equation:

$$q_t = \frac{c_i - c_t}{M} \times V$$

where V is the volume of solution (L) and M is the mass of the adsorbent (g) used. When the adsorption eqilibrium contact time was found, so the equilibrium sorption of arsenic ions unto GFO was carried out by contacting 2g of the GFO with 0.1 L of different As(V) concentrations from 100–1000 μg/L in 0.25 L Erlenmeyer flask on orbital shaker. At the end of each adsorption experiment, the solution and solid phase were separated by membrane filtration. The filtrate was collected and subjected for

arsenic estimation following analytical method. Then the adsorption data were analyzed to see whether the isotherm obeyed the non-linear Langmuir (LI) and Freundlich (FI) isotherm models equations. Kinetic parameters were evaluated by non-linear pseudo-first and pseudo-second-order kinetic model.

2.7 Desorption experiment

In desorption experiments 0,2 g of GFO was firstly exposed to 1000 μg/L As(V) solution for 120 min at neutral pH, room temperature (20 ± 2 °C) and 150 rpm in the orbital shaker. Next, the adsorbent was separated from the solution by filtration. The obtained As(V)-loaded adsorbent was then brought in contact with 0.1 L of 0.1 M CH$_3$COOH, 0.1 M NaOH, 0.1 M NaCl and distilled water for 2 h in orbital shaker at 150 rpm. Then, the adsorbent with desorbing agent was placed in a water bath at 70-80 °C for 2 h. In the end, the adsorbent was filtered and As(V) content in the filtrate was determined.

3. Results and disscusions

3.1 Modeling of adsorption

The effect of contact time on adsorption of As(V) on GFO with different time interval (0-200 min) at initial arsenic concentration 1000 μg/L and 2 g of adsorbent dosage is shown in Fig. 1. The removal of As(V) showed a rapid and steady increase up to 30 min. Thereafter, no significant increase was recorded. It is also seen that equilibriums were achieved within 30 min. The fast adsorption rate at the initial stage may be explained by the abundant availability of active sites on the adsorbent surface. In the equilibrium contact time the arsenic adsorption removal efficiency and the adsorption capacity were determined as a follows:

98.5 % efficiency and 49.3 μg/g capacity.
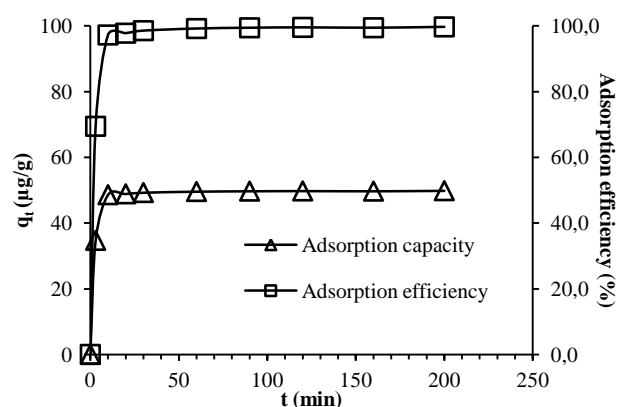
Figure 1: Effect of contact time on the adsorption of As(V) by GFO; As(V) initial concentration: 1000μg/L; dose: 2g; pH: neutral; temperature: 20 ± 2 °C; agit. speed: 150 rpm

In the present study, the Langmuir and Freundlich nonlinear models were used to describe the As(V) equilibrium isotherms. The illustration of the equilibrium adsorption plots and the summarized isotherm models are shown in Tab. 2. Fig. 2 describes the modeled isotherm profiles for the adsorption of As(V).

Table 1 Isotherm data for adsorption of As(V) by GFO

Adsorption isotherm	Parameters (unit)	Results	R^2
Langmuir $q_t = \dfrac{q_{max}K_L c_e}{1 + K_L c_e}$	q_{max} (µg/g) K_L (L/µg)	82.44 0.16	0.967
Freundlich $q_e = K_F c_e^{1/n}$	K_F (µg/g) n (-)	13.44 1.70	0.949

From Tab. 2, it is observed that the Langmuir isotherm showed better fit to the experimental equilibrium data than the Freundlich isotherm equation for As(V) adsorption according to the values of R^2. It is also seen that the Langmuir maximum adsorption capacity (q_{max}) is 82.44 µg/g and the equilibrium constant (K_L) is 0.16 L/µg. The critical properties of the LI may be affirmed from viewpoint of equilibrium parameter (R_L), which is a dimensionless constant related to separation factor or equilibrium parameter. The R_L values were found to be less than one and greater than zero for all initial arsenic concentrations, what indicates the favorable adsorption of As(V) by GFO.

The Freundlich constant (K_F) indicates the adsorption capacity of the adsorbent, while 1/n is a function of the strength of adsorption in the adsorption process. From the data in Tab. 2, the value n lies between one and ten and this indicates a favorable sorption process [8, 9].
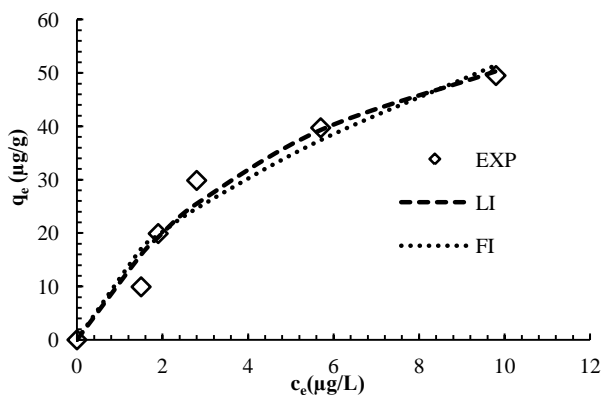
Figure 2: Modeled isotherm profiles for the adsorption of As(V) by GFO; contact time: 30 min; dose: 2 g; pH: neutral ; temperature: 20 ± 2 °C, agit. speed: 150 rpm

3.2 Adsorption kinetics

The adsorption kinetics was determined by the pseudo-first (PFO) and pseudo-second order (PSO) kinetic model. From Tab. 2, it is observed that the PFO rate constant (k_1) and correlation coefficient (R^2) were 0.1 1/min and 0.779. The experimental and theoretical values of equilibrium amounts (q_e) were 49.3 µg/g and 53.05 µg/g; with 7.1% higher theoretical value. This observation could not make PSO kinetic model as the best one. R^2 for the PSO kinetic model is greater than 0.99 and substantially higher than that for the PFO kinetic model. In addition, the equilibrium amounts (q_e) value calculated from the PSO kinetic model

agree well with the experimental data value. The PFO and PSO plots of kinetic study of As(V) adsorption on GFO is showed in Fig. 3.

Table 2 Comparison of PFO and PSO models parameters

Kinetic model	Parameters (unit)	Results	R^2
PFO $q_t = q_e(1 - e^{-k_1 t})$	q_e (µg/g) k_1 (1/min)	53.05 0.1000	0.779
PSO $q_t = \dfrac{k_2 q_e^2 t}{1 + k_2 q_e t}$	q_e (µg/g) k_2 (g/µg.min)	50.87 0.0164	0.993
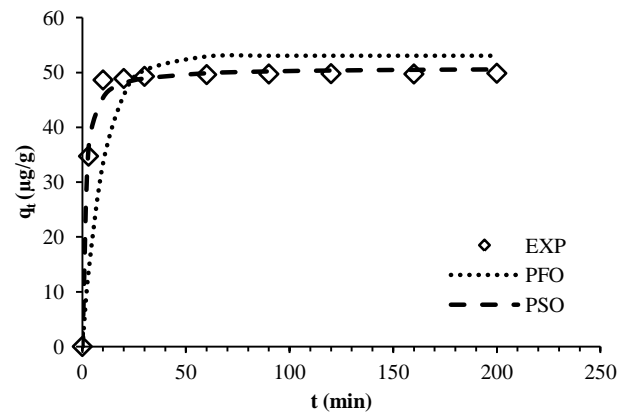
Figure 3: The PFO and PSO plots of kinetic study of As(V) on GFO

3.3 Desorption

The reversibility of arsenic sorption onto GFO was studied by desorbing spent sorbent using acidic (CH_3COOH), basic (NaOH), neutral (NaCl) extracting solutions and distilled water (Dist. H_2O). The results are presented in Fig. 4. It is clear that the desorption efficiency depends upon the nature of the solution. The basic desorbing solution showed superior desorption efficiency (89,07 %). For the acid and neutral desorbing agent and distilled water the desorption efficiency was not significant. In addition, the acid desorbing solution caused structural damage of GFO.
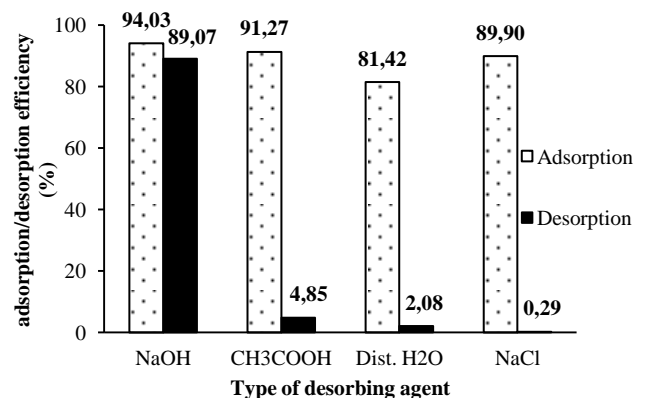
Figure 4: Histograms showing the efficiency of adsorption and desorption of As(V) using various desorbing agents

4. Conclusions

The present study shows that the GFO was successfully used as as an adsorbent for the quantitative removal of As(V) from aqueous solutions. The Langmuir and Freundlich models were applied to fit the experimental equilibrium data of As(V) adsorption on GFO. In addition, adsorption capacities were determined. These results showed that Langmuir isotherm model better describes the equilibrium sorption of As(V) than Freundlich model. The adsorption of As(V) by GFO is a favorable sorption process. Analysis of data showed that the process involves pseudo-second order kinetic model. Basic NaOH solution showed good desorption efficiency, but it is necessary in further study to find more effective desorbing agents.

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ANTIMICROBIAL ACTIVITY OF ETHANOLIC EXTRACT OF JUGLANS REGIA L. AGAINST CANDIDA ALBICANS

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Abstract: *The substances contained in seed shells, above-ground bodies and underground bodies - especially Juglon, which is strictly considered as natural medicinal substances, are now an alternative to synthetic preparations. In the conference will be presented and discussed influence of ethanolic walnut extract (Juglans regia L.) commonly referred as „Orzechówka" against yeast Candida albicans. The conducted experiment is the next stage of the research conducted in the field of antimicrobial properties of alcoholic walnut extract. The ethanolic extract of Juglans regia L. were tested against yeast Candida albicans ATCC 90028 obtained from the American Type Culture Collection (ATCC, distributors: LGC Standards, Łomianki, Poland). The MIC was the lowest concentration of extract which prevents visible growth of C. albicans*

Keywords: *Candida albicans, alcoholic extract, walnut*

1. Introduction

Authorities of the ground Walnut (*Juglans regia* L.), and above all its leaves and husks of immature fruits contain a significant amount of aromatic compounds-essential oils. These are volatile organic compounds, which depending on its chemical composition, spatial construction of the molecule and the species for which the Act can play different roles from repellant by chemical messengers, until the substance lure. Walnut secretes essential oils by evaporation. Part of the aforementioned substances essential Walnut enters the nineteen terpenoids, with the largest share in this mixture falls on acetate (Z)-3-hexane-1-OL, and β-pinene. In the compound leaves of walnut, juices, shell its fruits and roots there is a chemical compound 5-hydroxy-1.4-naphthoquinone called Juglon belonging to quinones compounds. Juglone was first isolated in 1928r by Davis'a with leaves and shells of nuts.

This compound has a very strong allelopathic effect. Juglon weakly dissolves in water but very well in organic solvents.

2. Material and methods

2.1 Biological properties of walnut (*Juglans Regia* L.)

The above-ground bodies of the walnut (*Juglans Regia* L.), and in particular its leaves and fruit shells are saturated with a significant amount of aromatic compounds called essential oils. They are volatile organic compounds that can play different roles depending on their composition. [6].

Walnut separates them by evaporation. In walnut leaves, fruit shells and roots there is a chemical compound 5-hydroxy-1,4-naphthoquinone called juglone belonging to quinone compounds. For the first time Juglon was isolated in 1928 by Davis from leaves and nut shells. Juglon

weakly dissolves in water but very well in organic solvents [5].

That is why 5 - hydroxy - 1,4 - naphthoquinone has found its application in medicine. It has antibacterial, antifungal and antiviral properties. It is one of the strongest antiseptic compounds in nature, therefore it is used in the fight against gastrointestinal parasites, such as pinworms or roundworms, as well as in the treatment of bacterial infections of the skin and fungal infections [12].

Orally administered juglon has toxic effects. The LD50 (50% lethal dose) value for juglone (5-hydroxy-1,4-naphthoquinone) after administration in a mouse mice is 2.5 mg / kg, in rats 112 mg / kg mc. After intraperitoneal administration of juglone, the value of LD50 = 25 mg / kg was obtained in mice and LDLo (lowest lethal dose) after intravenous administration in dogs was 10 mg / kg m.c. [1][11].

Cancer effect according to RTECS (International Registry for Chemicals) criteria and IARC (International Agency for Research on Cancer): none of the components present in concentrations above 0.1% have been identified by IARC as probable, possible or confirmed carcinogen for people.

In studies of walnut leaf and walnut ethanolic extracts prepared from 15 g fresh and 10g dry material, conducted by Erdemoglu [4], no toxic effects were found in mice. Extracts were administered to animals per os at a dose of 500 mg / kg m.c. There were no deaths per day from the administration of extracts, and the examination of the gastrointestinal tract of animals showed no bleeding or damage to the gastric mucosa. For the dry walnut leaf extract, results of in vitro hepatotoxicity studies are also available [10].

The study was carried out on cells of human hepatocytes and monocytes (fixed lines) grown separately and together on one plate (co-culture). The cells were incubated for 24 hours. with various concentrations of extract (1-500 μg / ml medium). The MTT (methyltetrazolium assay) and LDH (lactate dyhedrogenase assay) methods were used to assess hepatotoxicity, and the level of albumin produced by hepatocytes was also assessed using the enzyme-linked immunososbent assay (ELISA). Under the influence of the tested concentrations of the extract (1-100 μg / ml), both the hepatocytes and monocytes hepatocytes culture did not increase LDH and albumin. Only a very high concentration of extract (500 μg / ml) resulted in a reduction of hepatocyte viability by approx. 40% compared to the control; under the influence of other concentrations, no decrease in cell viability was observed. None of the concentrations affected the viability of hepatocytes cultured with monocytes. The obtained results indicate that the walnut leaf water extract does not cause hepatotoxic effects [9].

In conclusion, the external application of the walnut leaf on the skin in the indications and range of dosage recommended by the European Commission can be considered safe. The safety of the raw material is confirmed by many years of traditional use [8][9].

2.2 "Orzechówka" Ethanolic extract of Walnut (*Juglans regia* L.)

Ethanoli extract of Walnut (*Juglans regia* L.), colloquially called the "orzechówka" used in the experiment was made by traditional way. Collected Walnut unripe fruits, then separated the green husks from the rest of the fruit. To perform the extract has been used 300 gram green shells. The shells have been flooded with 500 ml of the ethanol (95%), and then weaned to a dark and cool place in sealed container. The extract was raised for a year being mixed once a month by moving in a circular vessel.

2.3 *Candida albicans*

Candida albicans, a species of fungi classified in the order of yeasts (*Saccharomycetes*). It is a non-enveloped fungi, causes widespread infection of the skin, mouth and esophagus, gastrointestinal tract, vagina and human vascular system. Although most infections occur in immunocompromised or otherwise impaired patients. Of course, yeasts not attack every one [2].

Candida albicans are one of the currently available in the flora of every human being and this role, which we enter into microelements, in other words, in the sense of supporting its host. However, it should be remembered that Very easily from the position of symbiosis goes to attack on the human / animal's organism. The relatively light symptoms suggesting candidiasis infection include headache, general fatigue, all possible allergies and bloating. Symptoms that threaten health and life include first of all the failure of the immune system, intestinal leakage and impaired function of the nervous system. *Candida albicans* - this fungus produces about 80 different

kinds of toxins and immunosuppressants in the fermentation process, which inhibit the body's immune processes by limiting its defenses. This leads to extreme acidification of the body, resulting in impairment of cells due to hypoxia and, as a result, problems with proper digestion and absorption [2].

2.4 Strain of *Candida albicans*

The ethanolic extract of *Juglans regia L.* were tested against yeast *Candida albicans* ATCC 90028 obtained from the American Type Culture Collection (ATCC, distributors: LGC Standards, Łomianki, Poland) and stored at 4ºC. Briefly, 100 μL of twofold serial dilutions of extract in Mueller- Hinton Broth (150 - 9,37 μg mL−1μg mL−1) was placed into 96-well plates. Then 100 μL of *C. albicans* (106 CFU mL-1) culture were added. The wells with MHB or yeast culture were negative and positive control, respectively. The plates were incubated at 37ºC for 48h. The MIC was the lowest concentration of extract which prevents visible growth of *C. albicans*.

3. The results

Based on the results of studies it was found that the minimum concentration of the extract of walnut, which inhibit growth of *Candida albicans* ATCC 90028 was 37.5 mg mL −1.

Based on the previous results of studies it was found that the minimum concentration of the extract of walnut, which inhibit growth of *Streptococcus aureus* ATCC 29737 was 37.5 μ g mL-1.

In conclusion has been shown antimicrobial properties of substances in alcoholic extract of Walnut (*Juglans regia* L.). Made observations allow to draw conclusions regarding the use of the alcohol extract of Walnut (*Juglans Regia* L.) in prevention of *Staphylococcus aureus* and *Candida albicans*.

By analyzing the carried out observations, it can be concluded that the substances contained in the alcohol extract of Walnut (*Juglans Regia* L.) in an effective work antimicrobial against *Staphylococcus aureus* and *Candida albicans*. An important feature is the same as the result of the MIC for both test cases.

In addition, an important aspect is the natural origin of the substance, and the scientific reports of the lack of carcinogenic hazards during the application of the walnut and its products. This is supported by carried out detailed research and traditional and longstanding use of the walnut in various forms (infusions, decoctions, tinctures) by people.

Based on available literature and research carried out by scientists from around the world, which are referred to at work, it can be concluded that ethanol extract of walnut is a safe natural remedy, the active substance of which is Juglon.

Our experience confirmed the properties of walnut extract demonstrated by the cited authors. The obtained results allow us to fill with hope in the treatment of disease states by means of natural origin. This is an important fact due to the occurrence of more frequent resistance of microorganisms to available synthetic drugs.

It is worth mentioning that „orzechówka" as a remedy for gastrointestinal problems has been used for a long time in folk medicine. Combining scientific reports and folk messages of natural medicine, you can find more properties of the remarkable attention in the walnut. Perhaps walnut extracts will cope with something that synthetic measures can not cope with.

Abbreviations and acronyms
ATCC - American Type Culture Collection
MIC- the lowest concentration of extract which prevents visible growth
LD - lethal dose
LDLo - lowest lethal dose
RTECS - International Registry for Chemicals
IARC - International Agency for Research on Cancer
MTT - methyltetrazolium assay)
LDH - lactate dyhedrogenase assay
ELISA - enzyme-linked immunososbent assay
MHB - Mueller- Hinton Broth

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PHYTOCHEMICAL COMPOUNDS FROM PUMPKIN SEEDS: A COMPREHENSIVE QUALITATIVE SCREENING

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Abstract: Pumpkin (Cucurbita maxima) is a plant with a great deal of benefits for the human health and has important uses in phytopharmacy. While many consider it to be a vegetable, scientists all agree that Pumpkin is a fruit since it contains seeds. This research paper describes the qualitative phytochemical screening of the aqueous extract prepared from two species of Pumpkin: Valenciano and Waltham butternut and all the phytocomponents are evaluated using standard analytical techniques. The seeds of both species were washed, finely grounded and dried before mixing them with distilled water in order to prepare the aqueous extracts. The qualitative screening of phytochemicals revealed, among others, the presence of saponins, carbohydrates and hexose sugars.

Keywords: phytochemical, pumpkin seeds, qualitative screening

1. Introduction

Pumpkin belongs to the *Cucurbitaceae* family, it's native to North America and is especially popular around Thanksgiving ang Halloween. Besides having a delicious taste, Pumpkin is also full of nutrients beneficial to human health, is especially rich in vitamin A, very high in beta-carotene, contains antioxidants that can neutralize free radicals, is packed with vitamins that help boost the immune system, has low calorie count that helps in weight loss diets and has high potassium, vitamin C and proteins that may help in various heart diseases [1-3]. Pumpkin is scientifically considered a fruit since it has seeds that, although small in dimensions, are full of important nutrients that can provide a substantial amount of fatty acids, magnesium and zinc [4]. Among the benefits of the pumpkin's seeds, some are very important: are high in antioxidants such as carotenoids and vitamin E, improve prostate and bladder health, their high content in magnesium helps in heart diseases, are high in fiber thus helping the digestive system, etc. [5,6]

The qualitative screening of phytochemicals is generally based on the color change reaction of the aqueous extracts to different chemical reagents, giving a positive or negative response and indicating the presence of different bioactive compounds [7]. The knowledge of the chemical constituents is useful to discover potential therapeutic agents as well as for economic purposes [8].

This research paper describes the qualitative screening of phytochemicals from the aqueous extracts prepared from two species of Pumpkin, Valenciano and Waltham Butternut. The qualitative screening of phytochemicals revealed, among others, the presence of saponins, carbohydrates and hexose sugars.

2. Experimental

2.1 Materials and methods

Hydrochloric acid (HCl), sulphuric acid (H$_2$SO$_4$), Folin-Ciocalteu reagent, Benedict and Millon reagents were purchased from Sigma – Aldricht while ethanol (C$_2$H$_5$OH), methanol (CH$_3$OH) and acetone (CH$_3$COCH$_3$) were purchased from Scharlau. The distilled water used in all our researches was freshly prepared in the laboratory using a Liston distiller. The squash were taken from a local homemaker and the seeds were dried at room temperature for 10 days.

2.2 Preparation of aqueous extracts

Both Valenciano (figure 1) and Waltham Butternut (figure 2) used in our researches were taken from a local homemaker from Gradistea, Giurgiu that them using no biocides. The seeds were carefully separated from the core, thoroughly washed twice with tap water, thrice with distilled water, dried at room temperature for 10 days, finely grinded and further used to prepare the aqueous extract following the next steps: 25 g dried squash seeds were transferred into a "French press" type extractor and 250 mL distilled water were added; the mixture was kept 24 hours in a refrigerator, at a stable temperature (4^0 C), to infuse; the resulted aqueous extracts were thoroughly filtered until a clear liquid results; the aqueous extract obtained is stable for more than 12 weeks at 4^0 C.

Figure 1: Valenciano pumpkin

Figure 2: Waltham Butternut pumpkin

2.3 Qualitative screening of phytochemicals

The qualitative screening for phytochemicals was carried out using standard analytical techniques that rely on the color change reaction to give positive response [9,10].

2.3.1 General screening of carbohydrates

Test for carbohydrates: numerous carbohydrates can be found in nature and they are classified as follows [11]:

▪ Monosaccharides (glucose, fructose, galactose);
▪ Oligosaccharides sucrose, lactose, maltose;
▪ Polysaccharides (starch, glycogen, dextrin).

Experimental: 1 ml Molisch reagent (a solution of α – naphthol in ethanol) is added to 2 ml aqueous extract and few drops of concentrated sulphuric acid are slowly dripped on the walls of the test tube. The resulted solution is shaken carefully. The appearance of a violet ring indicates the presence of carbohydrates.

2.3.2 Detection of reducing sugars

Reducing sugars is any type of sugar that can act as a reducing agent due to free aldehydes or ketones. Several tests are available [12].

a) Benedict test: to 1 ml of aqueous extract 5 ml Benedict's reagent are added and the resulted mixture is boiled for 5 minutes. Initially the solution is green and after boiling a red, yellow or green precipitate results.
b) Fehling A test: to 1 ml aqueous extract few drops of Fehling A reagent are added; a green colouration is a positive response.
c) Fehling B test: to 1 ml aqueous extract few drops of Fehling B reagent are added and the formation of a brown coloration is a positive reaction.
d) Barfoed test (for reducing monosaccharides): to 1 ml aqueous extract, 3 ml Barfoed's reagent (solution of copper acetate) are added, boiled for 2 minutes and then cooled. A red precipitate appeares.
e) Trommer test: to 3 ml of aqueous extract a ml of 2.5% copper sulphate and 2 ml of 5% sodium hydroxide are added and the mixture is boiled for 3 minutes. A blue precipitate appears which turn red upon heating.
f) Tollens test: to 4 ml of aqueous extract a drop of dilute NH_4OH is added and then a solution of 0.1 M silver nitrate is poured to the resulted solution. After 5-10 minutes of boiling a silver mirror is formed.

g) Moore test (testing the presence of glucose): to 2 ml of aqueous extract an equal volume of 5% NaOH is added and the mixture is boiled for 5 minutes with. The solution has initially a yellow coloration that changer to reddish-brown.

Test for tannins: to 1 mL aqueous extract, 2 mL of 5% ferric chloride was added and the formation of a dark blue or greenish black solution confirms the presence of tannins.

Test for saponins: 2 mL aqueous extract is mixed with 2 mL distilled water and vigorously shaken lengthwise, using a graduated cylinder, for 15 minutes. The formation of a 1 cm foam layer confirms the presence of saponins
Test for alkaloids: to 2 mL aqueous extract, 2 mL of concentrated HCl was added followed by few drops of Mayer reagent. The formation of green solution or white precipitate indicates the presence of alkaloids.

Test for flavonoids:2 mL aqueous extract was mixed with 1 mL 2N NaOH. The formation of a yellow color confirms the presence of alkaloids.

Test for proteins and aminoacids: there are 2 different methods: a) 1 ml aqueous extract reacts with 5 – 6 drops of Millon's reagent and a white precipitate appears that changes its colour to red at heating; b) to 3 ml aqueous extract, 3 ml 4% sodium hydroxide solution and few drops of 1% copper sulphate are added, resulting in a purple solution.

Test for cardiac glycosides: 2 different methods: a) 1 ml aqueous extract, 1 ml $FeCl_3$ reagent (1 ml 5% $FeCl_3$ solution mixed with 99 ml glacial acetic acid) and few drops of concentrated H_2SO_4 gives a green-blue colour; b) 5 ml aqueous extract, 2 ml glacial acetic acid, a drop of $FeCl_3$ solution and 1 ml concentrated H_2SO_4 forms a brown ring.

Test for steroids and terpenoids: to 1 ml aqueous extract add 10 ml of chloroform and slowly drip 10 ml sulphuric acid. Upper layer turns red and sulphuric acid layer turns yellow – green. Terpenoids are analysed following the reaction of 1 ml aqueous extract with 2 ml of chloroform and then slowly adding few drops of concentrated sulphuric acid. An interface with a red – brown coloration appears.

3. Results

Table 1 Qualitative screening of carbohydrates

Phytochemical test	Valenciano	Waltham Butternut
Carbohydrates (general) - Molisch	Purple red solution	Purple coloration
Carbohydrates (reducing sugars) - Benedict	Brick-red precipitate	Brick-red precipitate
Carbohydrates (reducing sugars) – Fehling A	Khaki solution	Green-yellow solution
Carbohydrates (reducing	Brown-yellow	Brown solution

sugars) – Fehling B	solution	
Carbohydrates (monosaccharides) – Barfoed	Blue-green solution	Brick-red precipitate
Carbohydrates (reducing sugars) – Trommer	Red precipitate	Red-brown precipitate
Carbohydrates (reducing sugars) – Tollens	Black precipitate	Silver mirror
Carbohydrates (reducing sugars) – Moore	Red-brown solution	Red-brown solution

Table 2 Qualitative screening for proteins and aminoacids

Pumpkin aqueous extract	Millon reagent	Biurette test	Cystein test	Ninhydrin test
Valenciano	+	-	-	-
Waltham Butternut	+	-	-	-

(+) presence; (-) absence

Table 3 Qualitative screening for alkaloids

Pumpkin aqueous extract	Mayer reagent	Hager reagent	Wagner test
Valenciano	-	-	-
Waltham Butternut	-	-	-

(+) presence; (-) absence

Table 4 Qualitative screening for cardiac glycosides

Phytochemical test	Valenciano seeds	Waltham Butternut seeds
Cardiac glycosides – $FeCl_3$ reagent	Colorless layer, thin brown ring, beige clear solution	Colorless clear layer, yellow suspension
Cardiac glycosides – Keller-Killani test	Colorless layer, brown ring, beige opalescent layer, red opalescent layer	Colorless layer, red-beige opalescent solution

Table 5 Qualitative screening for steroids and terpenoids

Phytochemical test	Valenciano seeds	Waltham Butternut seeds
Steroids	-	-
Terpenoids	-	-

(+) presence; (-) absence

4. Conclusions

This paper presents the qualitative screening of phytochemicals from the aqueous extracts prepared from two species of Pumpkin, Valenciano and Waltham Butternut. The aqueous extracts were prepared at a controlled temperature of 4^0C and were stable for more than 12 weeks. The qualitative screening of phytochemicals was achieved using standard analytical methods that involve the change in color of the aqueous extract. The analyses clearly reveled the presence of all types of carbohydrates for both pumpkin species, indicating that seeds are an important source of good nutrients.

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ART EDUCATION: THE DEVELOPMENT OF CHILDREN'S IDENTITY

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Abstract: *Art education is a cultural and aesthetic-educational subject that draws on culture and art. Art education is realized through creative activities, in which the pupil's own work is linked to the perception and interpretation of the visual and figurative expressions (i.e. signs and symbols rendered in selected art expression). The aims of art education are focused on the development of the pupils' identity (i.e. on their self-respect, self-assessment, self-esteem, self-realization, self-awareness, and self-discovery).*

Keywords: art education, art projects, pupils, teacher, educational situation

1. Introduction

At all levels of education, art can be used as an inspiration, an impulse to search for associations and connections. Examples of art culture best complement the teacher's reflection on the subject or artistic problem. Art education systematically develops deep and lifelong relationship of pupils with art in its various forms.

The paper emphasises the art education planning preparation and its basic categories, including: principles and objectives of teaching, tasks, contents, forms, methods, techniques, instruments and materials. In the next part there are two forms of project education presented and the paper concludes with a structure of the teacher's preparation for the unit of art education.

Also, the paper is focused on the projects in art education**.** Projects in art education is a concept of teaching in which the teacher creates the topic as a program with a coherent idea. In the art project, all themes are added together forming several layers and coveringa wider selection of topic such as culture, art history, art techniques, and so on.

1.1 Project education in art education

Project in art education usually involves building a relationship with art through the pupils' own artistic activities, not a lecture or an interpretation, as is the case with traditional methods. Art project is a concept of teaching where the teacher develops the theme of art as a program for a longer period of time and logically combines its action to a common idea [1].

Projects in art education is one of the options, how to plan art activities and develop the whole complex of the desirable disposition of children. The essence of the project is to create a series of artistic activities connected with a common idea, task and artistic problem that is studied from various perspectives (general and individual) and in a large number of different activities [2].

Art project is a more complex concept, time consuming. Teacher lead pupils to a multifaceted understanding of the world and awareness of the context, including interdisciplinary links. The introduction to art is therefore an integral part of art projects; sometimes a certain author, direction, genre or style period is the theme of the entire project. While working with artwork, educators work with children's experiences, offer connections between the pupils' life and art, teach them to observe connections within genres and across history. Art projects may also include museum pedagogy, educational activities in galleries, or artetherapeutic activities in creative workshops [3].

1.2 The following categories represent development of a pupil through art projects

The categories represent development of pupil in art education:

- Pupil's internal dispositions (development of their imagination, fantasy, visual thinking, etc.);
- knowledge and understanding in terms and images (facts, understanding and comprehension of the history of art, culture);
- creative skills (experimenting with art tools and materials, practical techniques acquisition);
- assessment skills (ability to distinguish art forms, evaluate works from contemporary art scene and works from the past);
- communication skills (verbal description of own work, interpretation of the work, sharing experience within a group, appreciation and respect of other artefacts, opinions of others, etc.);
- social-psychological background (relaxation, space for artetherapies, sensitivity to the values of others, creation of a creative space where the pupil can freely express their art).

2. Preparing for art situation

The specificity of art projects is that they are more or less degree connected to the parent area of art education, which is a fine arts and culture, or their theory and history. Presentation of the art is an integral part of art projects, sometimes it is a particular author, artistic genre

or period, the theme of the entire project. Linking teaching with artistic culture is at all types of schools the natural intent education.

Art becomes the theme of art projects or it can complement the art of children as an example of possible contexts, such as the ability to compare your own statement with the statements created by the artist. We teach the pupils to experience the arts and understanding, we are opening them to the world of extraordinary and deep experiences. If we wake up in the pupils a taste and a need to communicate with a work of art, we open the way for their entire life space [4].

The resulting shape of the creative project has a variety of forms that are based on the opinion of art teacher ideas. Teacher's concept is based on your own interest any artistic techniques (e.g. a drawing or painting techniques, graphic or spatial creation, or working with the new media).

The scope and organisation of the creative project is related to an educational process that respects a series of didactic aspects. Didactic aspects are applied at each stage of art project preparation, also in the art process and in the final form. During the planning of the various artistic subjects must comply with the content of the idea, and also this idea must correspond to the total project (i.e. the age of the pupils, their intellectual and artistic abilities). Some teachers work on the art project realizations for a few months, others from the selected topic creates a filling annual or multiannual work.

The educational aspect of the project lies in the options and the choice of a free access to artistic expression. It is extremely beneficial that pupils participate on the contents of the art project. The teacher gives pupils the chance to get chosen art theme and your own way of artistic expression. Pupils can actively enter into teaching with new stimuli and ideas and interesting thoughts.

During the planning of the art project must not be neglected the following aspects:

1. Educational environment:
- i.e. type of education/school;
- year (group);
- number of pupils;
- duration of the art session and form of teaching.
2. Objectives:
- Educational goals through learning, cognition, experiencing, communication, and contact with art and artefacts.
3. Relationship between content and the art theme:
- The stage of searching for the relationship between the subject and the form;
- the plane of imagination and thinking;
- developing self-discovery;
- the level of principles of expressive creation;

- the level of knowledge in relation to art culture (development of understanding of concepts);
- activity plane.
4. Art technique:
- the technique the teacher wants to introduce and teach.

3. Educational situation with an emphasis on art education and art therapy
In this section is presented the structure of the art situation. The model of art education with the overlaps of art therapy:

1. Motivation:
- associated with the art theme that is in the context of the experiences, acquired skills and age of the pupil, encouraging the pupil towards visual thinking, associations, towards a certain kind of art activity, awakening the curiosity of pupils and presenting pupils with interesting, unusual and new art problems to explore and search for various ways to process art;
- demonstration of the artwork, the creative process of the artist or the emphasis on the artistic direction.
2. Clarification of the subject:
- the teacher introduces the task to the pupils and gradually formulates it;
- the art problem that is presented to the pupils for solution.
3. Independent work:
- realization of the task by the pupil;
- the teacher does not disrupt the creative process of the pupil, they only observe the pupil's creative expression as an "assistant".
4. Assessment:
- discursive conclusion in a group.

4. Case study of art education: The objectives of the art project
The main motive of the art project is asking questions related to man and his feeling. The pupil has to understand emotions as something unique, important for our existence and inspirational for artistic creation. *"Emotional experiences are a source of artistic inspiration, which contribute or disrupt the creative mood."* [5] Presentation of the various artistic themes has to motivate pupils to search for own "Myself", the development of emotionality and experiencing. Art project is to help pupils to notification their feelings and behaviour. Creative ideas in art project may reveal what the pupil experiences, because the pupil will artistic perform a conscious and unconscious thoughts and desires. *"A child sees and experiences the colors, shapes, light, areas, volumes, structures and their quality. Using the symbols tells his ideas about representation of reality."* [6] In each of the art task is to put great emphasis on motivation, content, communication, and the unique personal artistic expression. This art project develops the basic psychological functions according to the classification by J. Kulka: activation functions (attention); cognitive function; the emotive function (feeling); motor function (movement); imaginative function (image); volitional

functions; communicative functions; functions of consciousness [7]. An inspiring idea for this art project has become a statement:*" The biggest brake on creativity is the fear of intractable the art theme, fear of the inability to artistic process. It is necessary to remove the fear of artistic creativity and art lesson. The fear of failure limits the imagination and motivation.… For the original ideas of the pupil must be compliment. The smile of a teacher is a great motivator to art work without the stress and concern. In lessons of art education has to rule the joy of art creation."* [8]

Example - Preparation for the art situation:

1. Educational environment:
- lower grammar school;
- group 12 – 13 age;
- 15 pupils;
- 14 education lessons;
- individual form of art process.
2. Objectives:
- Interdisciplinary educational goals through learning new art technics.
3. Relationship between content:
- art expressive and colour transcription of mental state;
- personal expression, capturing own impressions;
- emphasis on open art expression;
- the pupil focuses on themselves and their own inner state;
- development of understanding of art concepts and their contents within the knowledge of the history of culture with emphasis on visual culture;
- discovery of colour symbology;
- use of non-traditional methods.
4. Art techniques:
- Graphic technique;
- experimental and non-traditional art techniques;
- action painting.

Thematically unit of art project: Emotions in Everyday Life

Art project includes five art themes, i.e. five art tasks:
1. Name of art theme: "Mapping emotions on the body"
- art technique: graphic technique (relief printing – linocut. This technique involves cutting away areas in the lino plate, which when covered with ink or colour will print as white space in the print) and experimental technique with paper (fig. 1, fig. 2.),
- content of the art theme: the nature of human temperament, visible emotional States and reaction of emotion on our body.

Figure 1: Art theme "Mapping emotions on the body", linocut, author - boy 12 age, "Stunned Salvator Dali", 2018

Figure 2: Art theme "Mapping emotions on the body", experimental art work, authors - pupils 12 age, "My emotions", 2018

2. Name of art theme: "The power of time"
- art technique: action painting (fig. 3),
- content of the art theme: artistic communication of moods and emotions through action paintings. Action painting as a powerful experience of the artistic process.
- Action painting is based on strong emotionalism. It emphasizes the immediate in artistic expression. It incorporates harmony, dynamics and gesture. Spontaneous, unrepeatable movements express the mental state of the painter in the moment of creation.
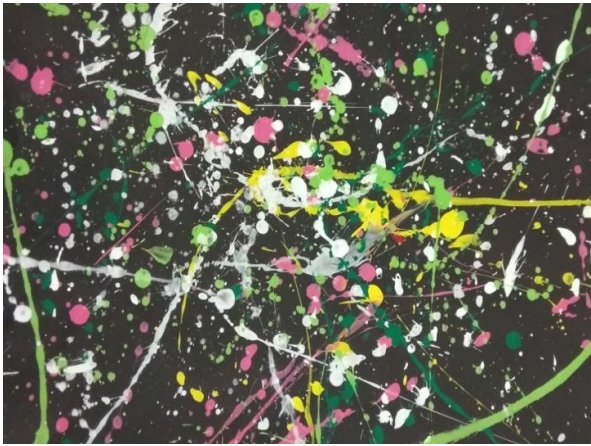
Figure 3: Art theme "The power of time", action painting, author - girl 12 age, 2018

3. Name of the theme: "Contingencies"
▪ art technique: art collage (fig. 4),
▪ a visual art technique, a picture is created by attaching, or layering of various material,
▪ content of the art theme: the random detection of inner symbols.

Figure 4: Art theme "Contingencies", art collage and pen drawing, author - boy 12 age, "My loves", 2018

4. Name of art theme: "My mandala"
▪ art technique: watercolour and drawing-ink technique (fig. 5),
▪ content of the art theme: watercolour is an art technique that consists in using thin, glazing layers of watercolours,
▪ madala concept in history.

Figure 5: Art theme "My mandala", watercolours and ink drawing, author - girl 12 age, 2018

5. Name of the theme: "Symbolic of colours"
▪ art technique: painting (fig. 6),
▪ content of the art theme: the physiological and psychological functions of colours evolve in different way in different cultures. The influence of colour on us has a complex character as the individual functions of colours may merge, or one colour may suppress the others,
▪ presentation of the symbolism of colours for pupils: symbolic and sensational influences of individual colours in our conditions – green (hope, health, freedom), red (love, passion, fire), yellow (jealousy), blue (stability, fidelity), white (innocence, cleanliness), black (sorrow, evil), purple (magnificence), brown (poverty, seriousness).

Figure 6: Art theme "Symbolic of colours", painting, art group - girls 12 age, artistic process, 2018

4.1 Example of preparing for the art situation
Complete preparation for the art situation:

1. Motivation:

In the motivation, the teacher will focus on dialogue between pupils. During the dialogue, the teacher puts emphasis on the topic of color and human emotions. During the discussion, pupils sitting quietly and conveniently. This relaxation will help pupils to think about their emotions and about their current mental state.

The teacher tells to the pupils: "Close your eyes. A deep exhale. Try all the worries and sorrows to banish from thoughts. Imagine peace and silence. Take a deep breath! Imagine that you are now on the beach and you can hear only the sound of the sea and your inner voice. Breathe out your bad feelings. (Space for relaxation). Breathe in peace and exhale restlessness. Slowly open your eyes." After relaxation has to be a space for dialogue between pupils and the teacher. Educational activities with an emphasis on art therapy:

- Emphasis on concentration and honesty to oneself;
- the development of skills to realize the relations to people and to experiencing;
- the formulation of your own opinions and personal experience;
- the development of the imagination;
- the development of communication.

2. Clarification of the subject:

- teacher introduces the task to the pupils;
- performance art techniques: action painting;
- presentation of the art techniques in the context of the history of art, and performances of the creation of the artist J. Pollock.

Educational activities with an emphasis on education:

- the development of knowledge and thinking;
- meeting with a fine art;
- the artistic-technical guidelines;
- the development of color sensitivity.

3. Independent work:

The pupil is working separately on an artifact. During the creative process, the teacher motivates pupils and coordinates their art activities.

Educational activities with an emphasis on art therapy and education:

- the development of creative thinking and creativity;
- the development of ability to focus on the creative activity;
- the emphasis on an open artistic expression;
- the effort to remove blocks from the art.

4. Assesment:

Discursive conclusion in a group.

Educational activities with an emphasis on the development of communication:

- development of tolerance and respect for the opinion of others;
- the development of communication and interpretation of artefacts;
- the emphasis on awareness of the unique artistic expression.

5. Conclusions

The teacher enters the role art-education planner in all phases of training activities. Benefit art project is a logical sort of fine work in a whole. This whole art project provides new ideas and also captures the moments experienced in the art creation. The participants recognize the new context and to a deeper understanding of the substantive issues. Art project methods to its intellectual content affect the entire educational process. It all adds up to better communication and deepen personal relationship between teacher and pupil.

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SATURATING THE NEEDS OF STUDENTS THROUGH UNIVERSITY COUNSELING CENTERS IN SLOVAKIA

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Abstract: The aim of this paper is to present the current status of counseling centers within universities in Slovakia. The needs of college students may be saturated with different subjects. One of them may be a university counseling center, which, within its comprehensively roofed areas, is offered to students as a tool to meet their diverse needs. These counseling centers are dedicated to areas not only of a study field but also to other areas such as psychological, social, legal, career, spiritual and so on. The post offers a current list of all counseling centers in Slovakia and includes some knowledge and experience from foreign universities' counseling centers.

Keywords: saturation, student needs, counseling center

1. Introduction

Saturation is a concept representing saturation, respectively to meet certain needs, eventually it may be the satisfaction of success in a particular activity or job, study, etc. [1]. The need is a subjective perceived lack of something that is inevitably important to man and his life [2]. It is formed by the swelling of the steady state in the body [3]. Most often it manifests itself as a feeling of lack, tension, or unwillingness [2]. American clinical psychologist Abraham Harold Maslow (1908-1970) understands the need as a condition for maintaining the physical and mental health of an individual [4]. Saturating of human needs interacts with its environment, although the environment may not always offer favorable conditions to saturate its needs [5]. Needs in higher education can also be saturated through university advisory centers. Even though the counseling center covers all the necessary needs of students, it does not mean that they are fulfilled. We are talking about certain barriers to saturating the needs that may arise on the part of the student or they can come out of the environment. And so, the needs are not fulfilled or they are underfilled. As a result of under-fulfilling needs, stress and strain, distress and frustration may also be felt [6]. The barriers to saturating the needs are mainly the personal barrier (shame to express his/her need, mistrust), the psychological barrier (inability to receive help), the language barrier (too professional words), the physiological barrier, the barrier in the environment (unknown or non cozy environment, excessive comfort), misunderstanding of the listener (shame to ask what we did not understand) [6]. Based on the results of the research, we would add the above mentioned barriers to the lack of awareness, respectively the lack of information (see table 4). We are talking about university students who have a counseling center within the university, but they do not know about its existence or if they do, they do not have adequate information about what counseling and services the counseling center provides.

2. Counseling centers in Slovakia and abroad

According to the International Association of Counseling Services IACS (in the US, Canada, Australia), the counseling center is an important part of university education because it supports it in various ways, such as counseling, treatment, preventive activities, and so on. Services are aimed at students who have personal problems or experience study stress, career preparation [7]. The counseling centers in Slovakia are centers focused on providing complex expert advice, such as. psychological, social, legal, career and counseling for students with specific needs. These centers also provide assistance and support in a variety of life situations, but also focus on providing support services and preventive activities, eg. various seminars, trainings and so on. [8]. Based on our own mapping activity, we have found that, counseling centers within universities and colleges are established at eight public universities in Slovakia:

- Catholic University in Ružomberok (Advisory Center),
- Technical University of Košice (Student Information and Advisory Center TUKE),
- Pavol Jozef Šafárik University in Košice (University Advisory Center),
- Trnava University in Trnava (Center for Advisory Services for Students),
- University of Economics in Bratislava (Center for Drug and Counseling Services),
- Slovak University of Technology in Bratislava (STU Advisory Center),
- Constantine the Philosopher University in Nitra (Advisory and Service Center for Students),
- University of Žilina (Center of Psychological Support).

The ninth counseling center can be found at a private college:

- Management College in Trenčín (Student Counseling Center).

Compared to the Slovak university counseling centers, there are counseling centers in the Czech Republic, except, they can be found at public ones, as well as at state and private schools or universities also. Universities in Slovakia offer very similar services within their counseling centers, focusing mainly on career, social (or socio-legal counseling), financial, psychological counseling, counseling for specific needs students, spiritual counseling and other services (preventive - education, service, seminars, etc.). Counseling services are provided by a team of experts. Due to the variety of services, different experts work in the centers. On the basis of personal communication with counseling centers, we found out that in the counseling centers of universities in Slovakia work mostly psychologists and to a lesser extent also teachers or social workers (at three universities). US counseling centers offer similar services to their students as they do at Slovak universities, but they are based on a different basis. We have compared counseling centers of several universities, such as Notre Dame University [9], Texas el Paso University [10], Shipensbus University [11] and others. The common starting point and goal of providing a counseling center is the mental health of the student, which is the basis for academic, personal or professional success. The University of Florida Counseling Center builds on the same foundation, but builds on self-help resources that are associated with increased academic success and long-term life satisfaction and career. They use stress reduction techniques such as progressive relaxation, the idea of stopping, assertive skills [12]. These university counseling centers in the US have mostly psychologists working In there, but also a social worker who is mostly focused on helping students find their way into the labor market and in other areas of human resources, the substance abuse coordinator, the food intake disorder coordinator, and so on. [9]. For the effective functioning of the counseling center, we consider its promotion and awareness of the services offered for students important. In Germany, the promotion of counseling centers is on high level. In universities, various projects are organized to inform university students and / or interested students more about the university's counseling services, such as university counseling orientation week always organized at the beginning of the academic year. Another activity, as well as in the Czech Republic [13], is the organization of an information day during which teachers represent the overall study offer to new students or the ones interested. One of the Interesting activities of the staff of the central study counseling is a visit of pupils of grammar schools in the town and its surroundings from November to April. The aim is to inform about study fields, counseling services provided, study enrollment and other study information [13]. There is also a high level of promotion of counseling centers in the Czech Republic (trailers, one-offs, participation in fairs, etc.) [14]. There are higher demands on the current staff of the consulting centers. They have to cope with the increasingly complex set of skills needed to tackle more challenging issues, such as: mental illnesses, personality disorders, but also the suicidal and homicidal tendencies of students [15]. The results of

research conducted by the American College Health Association in 2008 say that approximately 10% of undergraduate students consider suicide every year in the US. Of this, 1.5% of students attempt suicide and 1100 students across the country commit suicide. The results suggest that suicide is the second most common cause of college student's death [16]. The psychological burden of students may also result from the focus of some departments, which requires more psychological and support services to study and practice. These psychological services to particular faculties (eg medical) offer university counseling centers in the Czech Republic to prevent student failure during study [13].

In research, we have set a major research goal: to identify the current state of use of guidance centers. Based on the main goal, we set the following sub-goals:

1. Find out if students studying at a university with a counseling center are aware of its existence.
2. Find out if students who study at a university that does not have a counseling center would welcome its establishment
3. What % of the students from those who have a counseling center visited it at least once.
4. Find out the reasons for visits to guidance centers.
5. Find out what kind of service is missing for university students in the context of counseling center services.

3. Methodology
The research was conducted in 2019 on a sample of 396 students from faculties of education. The questionnaire survey was distributed to 205 respondents from universities in Slovakia who have a counseling center (Catholic University in Ružomberok, Constantine the Philosopher University in Nitra, Trnava University in Trnava) and 191 respondents from universities in Slovakia who do not have a counseling center within the university (Matej Bel University in Banská Bystrica, Comenius University in Bratislava, Prešov University in Prešov). For research purposes, we used the author's questionnaire, which consisted of closed, semi-open, open questions and questions with a five-level Likert scale.

4. Results
As part of our first goal, we investigated whether students who study at a university where they have a counseling center are aware of its existence. The results are interesting because only less than half of the students (44.88%) know about the counseling center. More than half of the students (52.19%) do not know if there is a counseling center at their university and 2.93% of students believe that the counseling center at the university is not (see Table 1).

Table 1 Informing students about the presence of a counseling center at the university

Counseling Center	Yes, there is	I do not know	No, there is not
Number of students	92	107	6
%	44,88 %	52,19 %	2,93 %
Total students	205	Interested in a counseling center	
		95,33 %	100 %

Under the second objective, we asked students who did not have a counseling center if they would welcome its establishment at the university. 44,50% of students said "rather yes" and 40,31% of students said "yes." The results show a great student interest in counseling center.On the contrary, only 5.24% of students answered "rather not" and 3.14% of students answered "no."

Table 2 Student interest in counseling center

Counseling Center	Rather yes	Yes	Rather not	No	Has CC
Number of students	85	77	10	6	13
%	44,5 %	40,31 %	5,24 %	3,14 %	6,81 %
Total students	191				

In the third objective, we wanted to find out how many % of the students surveyed who have a university counseling center visited the counseling center at least once. The results show that, out of 205 students, at least once a counseling center has visited 13.2%, representing 27 students. Subsequently, we asked about the reason for visiting the counseling center (see Table 1), with 66.7% of the students who visited the counseling center at least once, which is 8.78% of the total number of students who have a counseling center available. The reasons for the visits are given in Table 1. Most often, the students visited the counseling center during their tour at the beginning of the study (27.78%), the second most common reason was the connection with the study (16.67%), followed by help in finding a job and applying it in practice (11.11%) . Other reasons for turning to a counseling center are enrollment service, dyslexia, assistance in obtaining scholarships, assistance in bullying, confession and sensitive information (5.56%).

Table 3 Reasons for visiting the counseling center

Reason for visiting	% Responses
As part of the tour	27,78 %
About Study	16,67 %
Brigade search	11,11 %
Practical application	11,11 %
Recording Service	5,56 %
Dyslexia	5,56 %
Scholarship	5,56 %
Bullying	5,56 %
Sensitive information	5,56 %
Confession	5,56 %
The students answered together	**8,78 %**

Next, we found out what kind of service students would welcome at the university. 56.06% of students answered the question. Table 3 shows the types of services proposed by students and the number of students who would like to welcome the service at the university. The number of responses is divided into categories of responding students who have a university counseling center and students who do not have a university counseling center. 43, 94% of the students did not give any answer. We see a significant difference in the satisfaction of students who have a counseling center (16.67%) and students who do not have a counseling center (7.41%). Several university counseling students (9.65%) would welcome a social worker at the university. Less than a half of students (4.63%) would welcome a social worker at a university without a counseling center. In about the same number (7.02% and 7.41%), the students would welcome the presence of a psychologist and counselor. We assume that students who study at a university where a counseling center is not present are less aware that not only a psychologist but also a social worker could be present at the university's counseling center. To a greater extent (7.02% and 7.41%), students wish to have a counselor at the university, who directs them properly, also to whom they can confront their problems and also complain. As part of the services provided by the counseling center, a better result for us is the better information provided by 3.51% of students at a university counseling center and 5.56% of students at a university without a counseling center. We also see a significant difference in more practice, activities and events that help to find a future job, where 0.88% of students at a university with counseling center and 5.56% of students without a counseling center at the university reported this need. In this area we are talking about a career counseling within a counseling center that students do not have access to at a university without a counseling center. The counseling center itself would welcome 2.78% of students without a counseling center and 0.88% of students within the university's counseling center. Here you can see the students' ignorance of the presence of a counseling center at the university. A babysitting service would welcome 0.88% of students at a university with a counseling center and 0.92% of students in a university without a counseling center. It is a service for students with children offered by some counseling centers but not all. As part of the services offered by the counseling center, there is an important area of financial counseling that would be welcomed only by one student at the university with counseling center. This finding speaks of the fact that not every consulting center has the same service offer to meet the needs of students.

Table 4 Services that students would welcome at universities

Type of service	Students with counseling center	Students without a counseling center
Satisfaction with everything	**16,67 %**	**7,41 %**
Nutrition	12,28 %	19,44 %
A place to relax	12,28 %	21,30 %
University equipment	11,40 %	2,78 %
Social worker	**9,65 %**	**4,63 %**
Consultant	**7,02 %**	**7,41 %**
Psychologist	**7,02 %**	**7,41 %**
Social events, entertainment, activities	9,65 %	7,41 %
Better approach for teachers, university staff	7,89 %	5,56 %
Better connections	4,39 %	0,00 %
Library, study room	3,51 %	6,48 %
Better information	**3,51 %**	**5,56 %**
The possibility of volunteering	2,63 %	1,85 %
Dormitory accessibility	1,75 %	0,00 %
More practice, activities, events to help you find your future job	**0,88 %**	**5,56 %**
Counseling center	**0,88 %**	**2,78 %**
Babysitting service, children's play area	**0,88 %**	**0,92 %**
Financial advice	**0,88 %**	**0,00 %**
The students answered together	55,61 %	56,54%
Total answered	56,06 %	

5. Discussion

Based on the research results of the students at the university's proposed missing service, we see that students who have a counseling center at their university are more than 9% more satisfied than students without a counseling center. We assume that students, though having some sort of problems, are more satisfied because they know who to turn to. The difference in better information is not that big, but about 2% more students lack better information. The presence of a social worker, counselor and psychologist is similar on both types of universities. However, students with a counseling center are more likely to have a social worker at the university. There are mostly psychologists in the counseling centers of the universities, but the social worker is often missing there, and in our opinion, students perceive it. Students without a university counseling center require the same psychologist and counselor to be a social worker based on student responses and discretion. The difference is also in the practice, activities or events helping to find future employment. Nearly 4% more students without a counseling center require this kind of missing service. Career counseling is part of every counseling center that offers students a variety of skills training to help them find their future jobs. Students without a counseling center do not have this opportunity.

6. Conclusions

Based on this knowledge, we have suggested some recommendations. We consider it very important to raise awareness and promotion among students about the existing counseling center available at the university. We suggest to set up a number of advertising and information campaigns about the counseling center. This will increase the possibility for the student to come into contact with at least one "ad" to the counseling center. Then we suggest to increase awareness of the range of services offered by the center. Based on the results of interest (84.81%) of the counseling center at universities where it is not, we would suggest its establishment. Students are also interested in the psychologist, counselor or social worker, who would be resp. could be part of it. Even 95.58% of students who do not know about the existence of the center or think it is not established at their university, in fact, would welcome the presence of such a center at the university. Almost half of the services proposed by the students themselves that are missing are the counseling center's capabilities. these student needs may be saturated with a counseling centres. The most important step here is the establishment of counseling centers in universities where they are not part of them, and also their well-developed promotion.

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PROVIDING CAREER COUNSELLING IN SLOVAK VOCATIONAL SCHOOLS

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Abstract: Pupils' adequate and timely preparation for their future job positions plays a significant role in prevention against unemployment as well as failure in the labour market. More importantly, when taking into consideration people with certain handicaps. Concerning the pupils of vocational schools, it is predominantly a mild mental handicap which bears several burdens. Our research, therefore, includes a question whether the guidance counsellors of vocational schools provide their students support in the form of career counselling.

Keywords: vocational school, career counselling, guidance counsellor

1. Introduction

Pursuant to the Act No. 245/2008 Coll. on Upbringing and Education (the School Act) [1], vocational schools are special schools that provide special education of less demanding work activities for students with mental handicaps, or students with mental handicaps in combination with other disabilities. The program results in vocational certificate or in other two types of training certificates. Concerning vocational schools, pupils with mild mental handicap are expected to have some results in the field of professional integration. However, due to several aspects, integration from the school into the labour market might be problematical. Therefore, it is worth protecting the students against failure and offering them support by several forms of counselling. During such important transition, there are various projects implemented and number of support systems formed abroad. Slovakia has established a system of career counselling for schools; nevertheless, it is not equally applied everywhere.

A guidance counsellor is an irreplaceable and the most important element of career counselling in vocational schools. Since their counselling is combined with other activities, career counselling is often being of lower priority. After all, pupils' adequate and timely preparation for their future job positions plays a significant role in prevention against unemployment as well as failure in the labour market.

The guidance counsellor interconnects the school with counselling institutions of Education (pedagogical-psychological counselling and special pedagogical counselling), with Offices of Labour, Social Affairs and Family, and other special institutions focusing on the care of children and young people. Within the framework of career counselling, a guidance counsellor ensures and coordinates in a secondary school:

- individual career counselling,
- group programmes focusing on students' professional orientation,
- methodical help for other pedagogues at school as well as for parents,
- providing current information on the schools and education disciplines within the district, country and whole Slovakia,
- organisation and coordination of students' participation in the exhibitions of schools and job opportunities as well as students' excursions into their natural working environment and suchlike,
- coordination of cooperation with other school and non-school institutions that participate in professional training of students and so on.[2]

2. Empirical research

The main purpose of our research was to find out whether there is a career counselling, and what forms of career counselling are provided by the guidance counsellors for students of vocational schools. In particular, we asked our respondents whether they provide individual, group or collective form of counselling, what techniques they are using, and what year students are using those forms.

There are 59 active vocational schools in Slovakia by 29.02.2019. Our questionnaire was sent to each of them and the respondents (guidance counsellors) should have expressed their views on the above mentioned forms of career counselling. We got 42 replies to the questionnaires back, and thus the research sample consists of 42 guidance counsellors from vocational schools of all the Slovak self-governing regions. Our research goals are as follows:

a) To find out whether there are any *forms* of career counselling provided by guidance counsellors at vocational schools, and what kind of forms they are.
b) To find out what *techniques* within the framework of particular forms of career counselling are used by guidance counsellors at vocational schools.
c) To find out the *frequency* of providing particular forms of career counselling.
d) To find out what *year students* of vocational schools are using such kind of activities.

2.1 Operationalization

The term operationalization in its strict sense means a concept transformation into its empirical form so as to make it measurable and verifiable. The main purpose of the research is to find out what forms of career counselling are provided by the guidance counsellors from vocational schools to their clients, which means to students.

Providing particular forms of career counselling was discovered via several questions from the questionnaire. We focused separately on the individual, group and mass forms. For each one, we tried to find out the providing *frequency* that implies how often the students have the opportunity to use these forms of counselling. We used the scale of 4x a month, 3x a month, 2x a month, 1x a month, less than 1x a month, and not at all for individual and group forms. We looked into the frequency of activities at the collective form by questioning how many times a year are particular activities (excursions, talks, workshops, exhibitions and so on) organised.

Concerning the individual and group forms, we also looked into the *techniques* used, and the respondents could choose more than one option among 12 selected techniques of counselling (for instance conversation, observation, simulation and role playing games, self-experiential activities, lectures, discussion and so on).

We tried to find out by separate open-ended question whether the *guidance counsellors use something new and innovative* within the counselling techniques. Open-ended questions are of great importance in our research since they can provide more comprehensive answers by contrast to the closed-ended. Evaluation of the open-ended questions is often laborious and time consuming. However, the results can further enrich the experts as well as guidance counsellors themselves and facilitate them their future working. In the future, mutual advice and experience exchanging may contribute to develop the support system for students with mental handicap much more effectively.

Taking into consideration all the three forms of career counselling, we also inquired *how many % of students are using the form* in order to find out whether there is a difference in using particular forms of counselling depending on the students' year.

A special attention was paid to *social ability training*. We again looked into its providing frequency, what year students are using this method as well as what kinds of social abilities are trained by guidance counsellors in particular years. The type of social ability trained was inquired by the open-ended question. This type of questions provides us with necessary qualitative information.

2.2 Methods and methodology

The questionnaire was completed on the basis of studying relevant literature and up to now knowledges about the matter. Concerning our studied issue, there is no standardized form of questionnaire developed. The data gained were analysed in the Excel programme. They were processed via the first and second degree statistical analysis. The questionnaire included 47 questions, and these were open-ended, semi closed-ended and closed-ended questions. Using of several open-ended questions together with qualitative content analysis of their answers as well as quantitative data processing means that our research is of combined character [3].

3. Analysis and interpretation of the research results

3.1 Forms of career counselling

It follows from the questionnaire results that at least one of the forms of career counselling has been provided by 39 from 42 of respondents questioned. The respondents provide a collective form of career counselling the most, with 85%, followed by an individual form with 83 % and group form with 76%.

Table 1 Particular forms of career counselling

Form of counselling	Provided by VS	%
Individual	35	83,33
Group	32	76,10
Collective	36	85,71

3.2 Career counselling techniques

Counselling technique is a method that enables clients to meet their goals. It includes all the processes in order to achieve a target as well as the processes between a counsellor and client together with their mutual activities. To choose appropriate techniques depends on the counsellor's professional experience. The technique usage in particular forms of counselling varies since the counsellors usually work with different number of clients, and thus, they adapt their choice for each situation.

Concerning the collective form of counselling, a job excursion from potential employers prevails with 80% in all respondents. Only 42% of respondents questioned show that 64% of guidance counsellors are organising the talks or lectures thematically focused on the employment for their students, 61% of them are inviting an external expert to vocational school for workshop/presentation, and 66% of them are visiting some professional exhibitions with their students.

The following table shows using of particular techniques within the framework of individual counselling. The fact that 100% of respondents are using a conversation for their counselling shows that the conversation is usually the first method used by the counsellor in order to gain a description of present situation as well as the students' ideas of their future job. The second most frequently technique used is an observation. Depending on the students' handicap, the counsellors must know to consider how to encourage the students or to correct their future plans.

Table 2 Techniques used in the individual form of career counselling

Technique	Number	Percentage
conversation	35	100
self-experiential activities	15	42,9
work with worksheets	9	25,7
questionnaires, tests	10	28,6
lecture	7	20
discussion	11	31,4
observation	19	54,3
simulation and role playing games	9	25,7
interactive games	2	5,7
exercise games	1	2,9
Reflexion	4	11,4
motivational-stimulation techniques	3	8,6

Concerning the collective form of counselling, there is a different situation. A discussion leads with 81.3%, followed by a conversation with 65.6% together with lectures (62.5%). On the positive side, brainstorming as a technique has emerged with 46.9%. Brainstorming is a kind of discussion method that requires expressing solutions as fast as possible, thus it encourages students' creativity. It is a technique that supports new and non-traditional ideas as well as developing of students' communication skills.

Table 3 Techniques used in the group form of career counselling

Technique	Number	Percentage
Conversation	21	65,6
self-experiential activities	10	31,3
work with worksheets	4	12,5
questionnaires, tests	6	18,8
Lectures	20	62,5
Discussion	26	81,3
Brainstorming	15	46,9
Observation	14	43,8
psychological games	2	6,3
simulation and role playing games	14	43,8
interactive games	5	15,6
exercise games	1	3,1
Reflexion	3	9,4
motivational-stimulation techniques	1	3,1

3.4 Frequency of providing particular forms of career counselling

The research results show that the individual form of counselling is provided by 45% of respondents in 4 times per month, and it is really positive. Students, thus, can meet their counsellors every week in order to discuss their future jobs or develop those social skills needed for achieving the goal. 16% of respondents questioned do not provide this form at all.
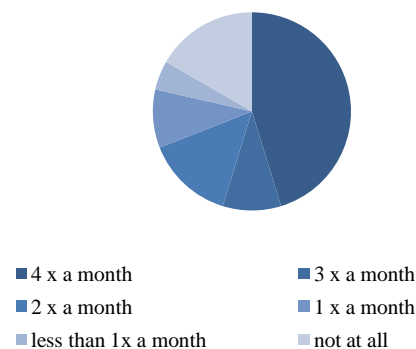
Graph 1: Frequency of providing individual career counselling at vocational schools¨

Concerning the group form of counselling, there are different results from the respondents showing that the students are possible to use this form in 2 times a month (31% of respondents questioned). The second most common answer was "not at all" with 23.8%. Therefore, students have the opportunity to attend group activities less frequently than in the individual form of counselling.
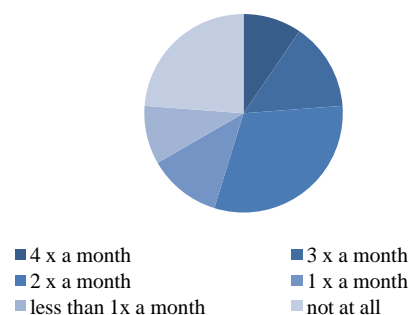
Graph 2: Frequency of providing group career counselling

64% of respondents use innovative techniques when counselling. These are predominantly from other sciences (e.g. psychology), brainstorming, drama therapy, trainings, experiential methods and suchlike.

Concerning the collective counselling, the table with frequency of activities shows really interesting results. Although most respondents (85%) provide a collective form of counselling, the average values on an annual basis are low when speaking about those particular activities. The worst activity is "a visit to job fair/exhibition" with the answer: 0x a year. The highest value has had "a job excursion from potential employers" activity. A modus has the number 4, and this is a positive thing since the direct contact with working environment and the employer can help the students to build up a correct picture about the employment opportunities in the profession concerned.

Table 4 Frequency of group counselling activities made per year

Activity	Average	Modus
Lecture/talk	1.4	0
Job excursions from potential employers	3.3	4
Job workshop/lecture from external experts	1.4	0
Visit to job fair/exhibition	0.6	0
Visit to exhibition focusing on profession	1.9	0

3.5 Using of particular forms of counselling according to the student's years

It is one thing that pupils have several career counselling opportunities available, and quite another how they are using them. In order to know the usage, we directly asked the respondents how many % of students of particular years are actually using such opportunities. We assumed that the older the students (and closer to the last year of study) are, the more activities they used. The following table shows that our assumption was confirmed.

Table 5 Using of individual and group form of career counselling by vocational students according to the years

Form of counselling	1.years	2.years	3.years
Inividual	35,88 %	41,97 %	51,17 %
Group	33,19 %	38,75 %	44,75 %

Concerning the collective form of counselling, we did not want to know how many % of students attend those activities since they are usually organised collectively in schools and are mandatory for the students. The following table consists of the respondents' target year group in the context of particular activities of collective counselling.

Table 6 Target groups of collective career counselling in vocational schools

Activities	1. years	2. years	3. years
Lecture/talk	48, 1 %	59,3 %	92,6 %
Job excursions from potential employers	55,9%	91,2%	94,1%
Job workshop/lecture from external experts	57,7%	76,9%	84,6%
Visit to job fair/exhibition	36,8 %	63,2%	100%
Visit to exhibition focusing on profession	71,4%	89,3%	92,9%

4. Discussion and recommendations

When looking at the situation of providing a career counselling at the vocational schools, it seems to be sufficient. Every form of counselling (individual, group, collective) has been provided with 73.8% by the guidance counsellors. Only 7.14% of respondents do not provide any form of counselling at all, 14.28% of them at least one form, and 4.76% of respondents provide two forms. From the availability of career counselling point of view, an offer from the guidance counsellors is of really positive character.

The main advantage of individual counselling is that a counsellor can ensure a greater feeling of security and confidence. Students with slower pace are not forced to their swift performances which can have further impact on their decision-making. A counsellor can make an in-depth individual diagnostics as well as familiarize with the students' health and prognosis in order to assess their employment opportunities individually. Contrary to the individual counselling, the group counselling provides a counsellor the opportunity to work with more than one student at the same time. It uses group dynamics aspects, acquiring of knowledge and practical skills based on personal experiences from the group participants' interactions. It also uses many-sided feedback and experiential learning, and it builds on the efficiency of positive group atmosphere. Its content is based on the students' specific needs, and from the vocational counselling point of view it focuses on the development of their crucial qualifications. A collective counselling is more demanding in terms of preparation for counsellors. However, it has many benefits, not only for counsellors but also for students. Via feedbacks, the students are able to correct their attitudes and ideas, while at the same time they can test their knowledge acquired in a group's safe atmosphere. Frequency of providing particular forms of vocational counselling varies due to their characteristics.

Using of particular forms of career counselling could be at the higher level. This is also claimed by the respondents themselves since there are a high number of students leaving school before finishing their study or even compulsory school attendance. Cooperation with parents should also be improved since its weaknesses are seen by the respondents too. Parents are often uninterested in their children and they do not encourage them to find a job. Altogether 47.6% of respondents answered that parents are "rather uninterested" in their children future jobs.

The recommendations directly gained from the respondents also included pedagogical stuffing levels at schools. Teachers in general are often underpaid and it leads to lose a motivation for young people to work in education. That's why there is no scope for other teachers to educate children more effectively. Another recommendation is to increase the system efficiency; that means to unite and systematize a career counselling for vocational students as well as their parents together with supporting the students after being apprenticed. Only 23% of respondents know their absolvents' future professional career, out of which the average employment of vocational students is 47%.

An ideal approach to professional integration of vocational students could be an effective cooperation of pupils, parents, schools, organizations participating in their professional preparation, work sector and, last but not least, employers and companies which should be more open towards a challenge to employ these people. Even though vocational students have a certain kind of handicap, they can contribute to society if we offer them appropriate conditions of their future employment. The

more open our society is and accept handicapped people, the more it becomes humane and democratic.

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MIND YOUR OWN MIND - THE EFFICACY OF SELF-HYPNOSIS AS AN INTERENTION AGAINST OCCUPATIONAL STRESS

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Abstract: The paper presents the results of an empirical study that was conducted to explore whether and if yes, to what extent, group-trained techniques of self-induced hypnosis might be utilised as a remedy for the prevention and reduction of occupational stress. In a study period of 36 weeks, the participants attended three subsequent intervention sessions with training of auto-suggestive techniques. Applied measures of data collection were the Social Readjustment Rating Scale (SRRS), the State-Trait Anxiety Inventory (STAI) and the Perceived Stress Scale (PSS-10). As a physiological biomarker for stress, a pre-/post-intervention measurement of cortisol was conducted. The statistical analysis of the results showed that there were no significant effects of the interventions conducted, neither an immediately effect within the intervention sessions, nor a sustained effect during the study period. The aspiration of this study is to proceed in the research of how auto-suggestive techniques could be utilised in the context of stress and to serve as critical endeavour for further research for new cost- and time-effective interventions against occupational stress.

Keywords: Occupational Stress, Hypnosis, SRRS, STAI, PSS

1. Introduction

Many studies indicate that stress adversely affects our health and well-being [1]. Stress, once caused by peak moments in the "struggle for life", as Darwin [2] described the daily challenge of our ancestors to survive in the evolution of humankind, has become a more subtle but permanent threat of life in times when humans face no natural predators any longer. Recently, changes in workflow and communication processes are likely to have a unique influence on the creation and perception of stressful situations in the job [1,3,4]. The sheer volume of interpersonal contacts through the amount of emails and phone calls, the overleap of work-related stress into formerly private re-convalescence space and time and the departure from classic work biographies are the dark side of our seemingly limitless freedom in modern work and organizational structures [1,3,5]. With stress-related illness and disorders emerging and spreading in terms of scoop and harmfulness, stress is today perceived as one of the most severe risk factors both in psychology and medicine [1,5,6]. Maladaptive responses to stress can easily lead to a vicious cycle (see figure 1) in which stress initially leads to physiological and psychological strain that then reduces itself the coping resources to deal with the initial stressor, leading to a fortified maladaptive behaviour and by this to further reduced coping resources [7]. Given the severe impact of stress on our daily life, the present paper shall contribute to the discussion whether and, if yes, to what extent self-hypnosis can be utilised as an effective intervention to occupational stress. Albeit that the empirical evidence about the exact mode of action of hypnosis is limited and does in many cases not satisfy the requirements for evidence-based treatment in medicine and psychotherapy, the practical evidence for its efficacy is compelling [8].
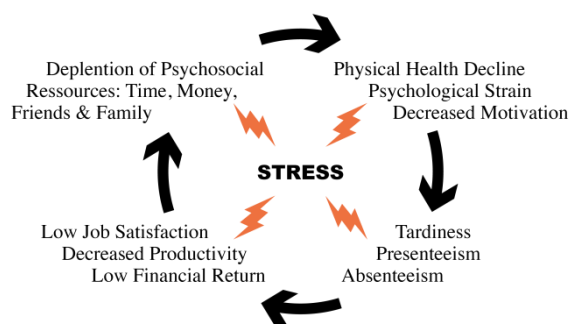
Figure 1: Vicious Cycle of Occupational Stress

The value of self-hypnosis in stress management is that it relates to a lot of problems. Less an intervention but rather a gateway [9], self-hypnosis allows to trigger and catalyse protective factors from the resources inherent in each individual [10]. The idea that individuals are not only subject to stress and stress-related illness, but can consciously and unconsciously actively participate in prophylaxis and cure is implied once we accept that a stressor is not a stressful event by nature, but by the individual value we give it [11]. Hence, the emphasis is on personal change and reassessment in a challenging situation. If hypnosis can be used by the practitioner to disengage from the focus on the problem and re-engage with his own resources in general and further foster the (re-)appraisal of critical situations [9,10,11], which may be triggering or exacerbating a stress reaction, the psychological intervention of self-hypnosis might have a positive effect on the intensity of our stress sensation stress in general and occupational stress in particular [8,9].

2. Methods

2.1 Research Sample

The study was conducted with students and postgraduates (n=61) with an age ranging between 19 and 52 years. The distribution of male and female participants corresponded to the population average of the age group. The inclusion criteria for the test subjects have been fixed questions within a telephone interview for recruitment. The test subjects had to conduct at the time of recruitment a part-time or full-time job. The exclusion criteria were a recent psychotherapeutic treatment, or a substance dependence/ abuse in the past three months.

2.2 Instruments and Data Collection

A pre-/post-measurement of cortisol was applied to test the immediate effect of the intervention on a physiological level. The quality and quantity of stress was determined by the application of the Social Readjustment Rating Scale (SRRS), which focusses on the cumulative effects of recent life events and the Perceived Stress Scale (PSS-10) that measures the participants' perception of stress in terms of the degree of how unpredictable, uncontrollable or overloaded they perceive their life. Further, the State-Trait-Anxiety Inventory (STAI) was used due to its differentiation between a temporary condition and the long-standing quality of anxiety that equals to a certain degree with stress [12], as well as by a range of closed- and open-ended questions about the application and perceived effects of the trained auto-suggestive techniques. The inventories have been generated using the Google Forms as an online questionnaire tool and have been divided into four sections. The resulting questionnaire, named online stress diary, was filled in by every participant on a weekly basis.

2.3 Procedure

The study was carried out as a quantitative research in terms of an experiment with a within group with repeated measure experimental design [13] over the period of 36 weeks. As the efficacy of auto-suggestive techniques on occupational stress shall be examined, the study shall examine whether the application of auto-suggestive techniques, as independent variable or treatment variable, could constitute a difference on the level of occupational stress, as dependent variable. During the study, a three-level stress-intervention training had been conducted. In the first session, participants, after a diligent screening of their stress-load, have been introduced to the concept of occupational stress and to auto-suggestive technique for relaxation and focusing. In the second session, participants have participated in a professional training for stress-management, based on auto-suggestive techniques, especially self-hypnosis. The third session was to conduct and deepen the trained techniques against occupational stress under the supervision of an experienced hypnotherapist.

3. Research Results

The measurement of cortisol as a biomarker for stress is used because of its property to indicate short-term effects via a pre- and post-measurement before and after the second and third intervention sessions of the study. Not all participants wanted to conduct the cortisol analysis, so the data stems from 41 probands in the second session and 35 probands in third session. Table 1 shows descriptive statistics for the cortisol measurements.

Table 1 Pre-/Post-Intervention Cortisol Measurements

	N	Mean	Min.	Max	Standard-Deviation
Cortisol 1 pre Measurement	41	3.78	1.37	14.75	2.029
Cortisol 1 post Measurement	41	3.66	1.38	13.43	1.836
Cortisol 2 pre Measurement	35	3.00	0.86	6.08	1.138
Cortisol 2 post Measurement	35	2.91	0.89	6.26	1.172

Column "N" represents the number of observations per variable, "Mean" the average value and "standard deviation" indicates the average deviation from the mean. Minimum and maximum declare the lowest or rather highest value of the variable.

In order to examine a potential effect of self-hypnosis techniques that have formerly been trained in the intervention sessions, the question was whether the participants did active try to apply these techniques in challenging situations during the study period. Investigating the distribution of the interventions, it occurred, that higher numbers of interventions were extremely rare, so another binary variable was created, showing, if a technique was used at all or not. The distribution of the participants that actually applied interventions is shown in table 2. Interventions are most frequent in phase 2, whereas in phase 1 no interventions are most common.

Table 2 Crosstab Intervention (Binary) and Phase

	Phase 1	Phase 2	Phase 3
Probands used Intervention	23	14	16
Probands not used Intervention	38	47	45
Total	61	61	61

In the following it has been tested, if the STAI- and PSS-Variables changed over time, more precisely, if they change between the three phases in which the stress intervention trainings have been conducted. Again, we have dependent samples and, as detected before, non-normally distributed variables by phase. For this analysis we used the Friedman-test, which is the non-parametric counterpart to ANOVA. The Friedman-test is based on ranks instead of means. The null hypothesis is, that there is no difference between the phases. At first, all measurements are ordered separately and ranked by person/observation. Afterwards the ranks have been summed up per phase. The greater the difference between the phase's sum of ranks, the likelier is a difference between the phases. If we find significant results for this test, it means, that there is significant difference across all phases. In table 3, the results for Friedman-test on STAI- and PSS-Variables by phase are presented. Significant results for probands that applied the trained techniques

could only be found for variable "Missed Opportunity". The mean rank shows, that the variable is highest in phase 2 and approximately equal in phase 1 and phase 3.

Table 3 Friedmann-Test STAI- & PSS-Variables by Phase

Item	Phase	N	Mean Rank	Chi Quadrat	Signifikanz
Missed Opportunity	1	61	1.86	7.888	0.019
	2	61	2.29		
	3	61	1.85		

With regards to the other items, there was no significant result for the Friedman-test on STAI and PSS-Variables.

4. Discussion

4.1 Interpretation of Results
The study was conducted to examine the efficacy of self-hypnosis as a remedy against occupational stress. It was assumed that a three-level training of auto-suggestive hypnosis-techniques would have an immediate effect pre-/post the intervention within the training sessions, as well as to reduce the subjective perceived stress level during the study period of 36 weeks. Given the aforementioned results, neither a clear physiological effect of self-hypnosis to reduce stress by the cortisol measurements, nor an effect above the established level of significance could be found by the applied inventories. This finding is not consistent with the hypothesis stated in this research, but is consistent with a part of the literature studied in the course of the research that indicated that hypnosis is highly depending on the interaction between the therapist and the patient [8,14]. In this respect, the results fortify the assumption that stress is multifactorial with regards to its individual appearance, perception and interaction between the individual and its environment [11]. Furthermore, there is some evidence in literature that the effectiveness of auto-suggestive techniques depends on the duration and frequency of their application [9,15]. As previously shown, a part of the group did not or rarely used the techniques during the study period. Especially in the moment of immediate stress, a practiced technique, which is also proven to have a positive expectation of effectiveness, will be clearly superior to a new technique without such expectation [14,15]. A standardized technique, which enables the participants in a few sessions to find an effective remedy for acute or chronic stress, could not be found in the study. The apparent contradiction to the multitude of studies demonstrating the efficacy of self-hypnotic stress and anxiety techniques could be explained by the need to develop a close therapist-patient relationship for learning and deepening effective technique due to the individual situation and the specific individual stress experience we perceive.

4.2 Research Limitations
In the elaboration of the theoretical framework and during the conduct of the study, the author came across some limitations that will be indicated in the following. With a sample size of n=61, first conclusions can be drawn about the object of investigation, but no representative statements for a broad population group. For a stronger test strength, a significantly larger number of participants would be required, which could not yet be performed due to the limited resources of a private financed study in the course of a dissertation. Further, in the test setting of a longitudinal study over several months, no controlled environment can be created that would be necessary for an experimental test environment. Hence, incidents in the individual's private or working environment could constitute a confounding variable. Although the SRRS was conducted to partially control the impact of biographical stressors, the closed catalogue of life events with a fixed value will not be able to fully cover the subjective perception and subjective stress sensation associated by an individual to a specific life event. Also, the usage of self-report inventories can only measure the subjective perception of stress. Bias, for example in the form of responses according to the expectation of social desirability, is difficult to control in this process. Finally, the standardization of the intervention itself posed a problem because there is no standardized procedure for self-hypnosis against stress and the acceptance and effectiveness of the intervention to be mediated depends strongly on the individual therapeutic relationship between the therapist and the recipient.

4.3 Future Intentions and Directions
Despite the negative impact of occupational stress on the psychological and physiological well-being, broad-based stress intervention training is still the exception in the educational system and rarely established in modern organisations. The findings of the study and its theoretical framework were expected to be used to further promote the development of standardised, efficient and low-threshold stress-management techniques that could be trained and implemented already during school education. As there is no gold-standard for auto-suggestive techniques as a stress intervention, it is one of the challenges for future research to further explore and develop easy to be learned and taught tools for a more functional handling of challenging situations as early as possible. Further, the present work is intended to make a contribution to the research of how to make stress measurable as a multifactorial construct and thus to assess the effectiveness of stress prevention and interventions. In this respect, the author hopes that mixed method research might provide some more insights about the assessment of the psychophysiological quality of stress that is still the subject of a lively debate.

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INFLUENCE OF PERSONALITY PREDICTORS OF BURNOUT SYNDROME ON COPING WITH STRESS AMONG NURSING STUDENTS

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Abstract: Personality characteristic might be important factors influencing the individual abilities to cope with the burnout syndrome. Aim of the study was to examine the relationship between personality factors such as self-evaluation and sense of coherence and burnout syndrome among students of nursing. Together 130 university students of nursing, (average age 20.85±2.94; 97% females). Scale Burnout Inventory (SBI) in the school was use for assessing the burnout levels. Sense of Coherence Questionnaire (SOC) and Rosenberger's Self Esteem Scale (SES) were use as well. Significant negative relationship was found between burnout syndrome and self-esteem (p ≤ 0.01), as well as sense of coherence (p ≤ 0.01); it means that higher levels of self-esteem and sense of coherence was associated with lower burnout syndrome levels among students. Conclusion: Personality factors are strongly link to burnout among students. It is important therefore to follow and guide the predisposition suitably used in the management of entitlements study, as they tend to persist after a period of professional practice. It is therefore consider that improving the skills of coping with stress among students is beneficial in preventing subsequent occurrence of burnout in the profession of nurse.

Keywords: nursing, burnout, self-esteem, a sense of coherence

1. Introduction

The concept of burnout was introduced in 1975 by the psychoanalyst, Herbert Freundenberg. He defines it as a final stage, in which people are emotionally dried out; lose their original enthusiasm and motivation [1]. The key factors of burnout are feeling absolutely exhausted and worn out, overall fatigue. The clinical picture of burnout is reminiscent of depression; it is the opposite of positive symptoms such as joy, contentment and serenity. It is associated with negative emotions such as fear, anxiety and anger. Most often, it occurs in people in permanent social contact, people in isolation or performing monotonous work [2]. Burnout initially operates subtly. A common trigger is a change to one's job (especially promotion) or a new job. According to Bartová [3]. The most vulnerable groups are doctors, nurses, psychologists and psychiatrists, social workers, teachers at all types of schools, staff in correctional facilities for juveniles and adults, police officers, managers and business people. Maslach and Leiter [4] in their study highlighted the importance of personality and socio-demographic predictors such as age and level of education, which are important predictors for the development of burnout syndrome. Working conditions are also identified as significant factors affecting burnout.

Each individual has a different degree of adaptability to stress factors operating on them. Burnout is a threat to people who have the following personality traits listed in Table 1.

Tab. 1 Predetermining personality characteristics [1, 5]

According to Zacharová	*According to Kebza, Šolcová*
Enthusiasm for the thing in question	High level of empathy
Dedication to the given thing is meaning of life for them (workaholism)	Self-sacrifice, high level of sensitivity
Increasing the demands on oneself	High focus on others,
Experiencing failure as a personal obstacle	Idealism
Taking on an excessive amount of work	Anxiety
Inability to delegate responsibility to others (desire to have everything under control)	Pedantry
Inability to relax and rest	Enthusiasm
Low self-confidence	Tendency to identify with others
Experiencing shock from reality (for the reason of high ideals)	Inability to ask others for help
Permanently experienced pressure from several sides (work, family)	

1.1 Objectives of study

Research was conducted in order to determine the existence of relationships between personality factors of self-esteem, a sense of coherence and the prevalence of burnout among students in the first level of university education in the field of nursing in the 2nd to 3rd year in terms of age, type of previously completed high school education, years of study in the field.

1.2 Research methodology

In the study we obtained the necessary data using three standardized questionnaires. To measure the level of burnout the School Burnout Inventory (SBI) scale was used. This tool is specifically designed for the purpose of determining the level of burnout in the school environment; its advantage is therefore its targeted nature and timeliness for the selected sample group of the study. The questionnaire consists of nine items scored using a

Likert scale (from 1 — fully agree, up to 6 — strongly disagree). The maximum score on the questionnaire is 54, with higher scores indicating higher levels of burnout [6]. To detect levels of self-esteem the Rosenberg self-esteem scale (RSS) was used with a maximum score of 30 points. A higher score means a higher level of self-esteem [7]. In the study, we used the standardized questionnaire and Sense of Coherence Inventory (SOC) - Antonovsky scale, which consists of thirteen items [8]. The questionnaire uses a 7-point Likert scale for scoring responses. The maximum score is 91 on the scale; a higher score obtained on the questionnaire would imply an increased sense of coherence.

For processing the results of the research, we used statistical methods of descriptive statistics – calculation of frequency (n) and percentage values (%), calculation of the average scale values (M), standard deviation (SD). For statistical processing of our data, we used SPSS 15.0 software. For statistical comparison of observed groups, we used the t-test (Student's t-distribution). This statistical methodology enabled us to identify statistically significant differences between groups for the monitored parameters. Correlation analysis (Pearson correlation coefficients calculation) was used to detect interactions between variables. All tests were performed at the significance level $\alpha = 0,05 = 5\%$.

1.3 Sample group

A total of 130 day bachelor's students in the field of nursing in the second and third years at the Faculty of Healthcare at the University of Prešov in Prešov. The response rate was 86.6%; data collection took place in February 2016. The majority of students (97%) were women; the mean age was 20.85 ± 2.94. More than half of respondents had completed high school education with healthcare specialization. The sample consisted of 50% of students in the second year and 50% in thee third year of study. More information on the respondents is presented in Table 2.

Tab. 2 Demographic characteristics of respondents

Gender	n	%
Female	127	97
Male	3	3
Age	n	%
20 – 21 years	81	62
22 – 25 years	47	36
26 and more years	2	2
Completed high school education	n	%
Healthcare high school	68	52
Other	62	48
Year of study	n	%
Second	65	50
Third	65	50

2. Results

The average value of each of the variables studied by us is presented in Table 3. The average burnout score using SBI in the whole sample was 24.92 ± 7.63, the level of self-esteem 18.7 ± 4.62 and a sense of coherence was 59.61 ± 11.64.

Tab. 3 Average values of monitored variables in the whole sample

	Emotional intelligence		Respondents	
			M	SD
Varia ble	O1.	Burnout syndrome	24.92	7.63
	O2.	Self esteem	18.07	4.62
	O3.	Sense of coherence	59.61	11.64

Tab. 4 Comparison of variables based on type of completed high school education

			Non-healthcare		Healthcare		p
			M	SD	M	SD	
Variable	O1.	Burnout syndrome	24.89	7.58	24.95	7.75	0.567
	O2.	Self esteem	18.13	4.57	18.02	4.68	0.461
	O3.	Sense of coherence	59.65	11.68	59.54	11.75	0.523

Key to the significance of the statistical results * p < .05; ** p < .01; *** p < .001

In terms of comparing groups of students with completed healthcare high school education (52%) and non-healthcare education (48%) we found at the level of average value of individual factors, a higher burnout score was among the healthcare-educated group. The level of self-esteem and sense of coherence was judged more highly among the non-healthcare educated group. The significance of the difference was analyzed using the Student's t-test, but in our sample of respondents, correlation between prior healthcare education and likelihood of experience with this problem was not confirmed by a statistically significant difference (Tab. 4).

Tab. 5 Comparison of variables in terms of age

		21 years and under		22 years and over		p
		M	SD	M	SD	
Variable	Burnout syndrome	24.04	7.62	25.8	7.95	0.042 *
	Self esteem	18.33	4.44	18.00	4.72	0.461
	Sense of coherence	60.75	11.42	59.04	11.55	0.501

Key to the significance of the statistical results * p < .05; ** p < .01; *** p < .001

In terms of age, significant differences were found in for the group of students in the age category under 21 years in the overall mean score for SBI on the level of * p < .05. The lower value for burnout syndrome was reported by

respondents in a lower age category. In other areas of measurement, on the basis of second degree analysis we did not find significant differences in the observed groups. (tab. 5).

Tab. 6 Comparison of variables in terms of year of study

Variable			2nd year		3rd year		p
			M	SD	M	SD	
	O1.	Burnout syndrome	23.91	7.51	25.92	7.98	0.039*
	O2.	Self esteem	19.23	4.51	17.55	4.62	0.046*
	O3.	Sense of coherence	61.55	11.55	58.03	11.35	0.033*

Key to the significance of the statistical results * p < .05; ** p < .01; *** p < .001

We also compared the group of respondents in terms of year of study at the Faculty of Healthcare at Prešov University. Students from the lower year had a lower level of burnout (at p <.05) and a higher level of personality characteristics of self-esteem (at significance level of p <.05) and sense of coherence (at a significance level of p <.05).

Tab. 7 Correlation relationship of monitored variables

	Length of study	Type of high school	Burnout syndrome	Self esteem	Sense of coherence
Length of study	1	0.05	0.41*	-0.34**	-0.44*
Type of high school	0.05	1	-0.11	0.13	0.14
Burnout syndrome	0.41*	-0.11	1	-0.31**	-0.39**
Self-esteem	-0.34**	0.13	-0.31**	1	0.52*
Sense of coherence	-0.44*	0.14	-0.39**	0.52*	1

Key to the significance of the statistical results * p < .05; ** p < .01; *** p < .001

On the basis of the results of correlation analysis, we found a statistically significant mutual relationship between the monitored variables. A negative correlation was shown between burnout and self-esteem (r = -0.31, p <.01) and a sense of coherence (r = -0.39, p <.01). This relationship shows that factors such as high levels of self-esteem and sense of coherence were associated with lower levels of burnout in our sample group of students. A positive correlation was observed in relation to the length study for burnout (r = 0.41, p <.05) level of self-esteem (r = -0.34, p <.01) and sense of coherence (r = -0.44, p <.01).

3. Discussion

Several studies have recently focused attention on the prevalence of burnout among students, especially in fields with a higher risk of burnout (the helping professions).

During studies there are already training programmes aimed at developing communication skills and improve coping strategies which are generally considered to be effective tools to prevent burnout syndrome, even though there are relatively few studies focusing on research to confirm this relationship. A positive effect of social and psychological interventions was recorded for individual components of burnout among health professionals on psychiatric wards. In Slovakia, the issue was addressed in their study by Škodová and Paceková [9]. A total of 75 university students participated in their research: 48 psychology students (mean age 21.1 ± 3.3; 29% men) and 27 students of nursing, and public health (19.8 ± 1.7; all women). To measure the level of burnout the school burnout indicator (SBI) was used; they also used the Antonovsky SOC scale for sense of coherence and the Rosenberg self-esteem scale (RSS). For statistical data processing linear regression was used. Using linear regression variables were analyzed based on age and gender as possible independent variables, the level of self-esteem (RSS) and sense of coherence as possible predictors, and the level of burnout (SBI) as the dependent variable. Burnout was significantly predicted only by the level of sense of the coherence, but not by self-esteem.

Škodová and Paceková [10] in another study focused on students from the helping professions, and investigated the effect of socio-psychological training on the level of burnout and personality predictors (self-esteem, a sense of coherence). The study used a quasi experimental pre-test and post-test. The participants were 111 university students of psychology and nursing divided into experimental and control groups. The experimental group participated in social-psychological training for a period of six months. The measuring instruments were used were standardized SBI questionnaires, SOC questionnaires and the Rosenberg self-esteem scale. The results showed that socio-psychological training had a positive impact on both the level of burnout, as well as the level of personality predictors of burnout. After completing training, the level of burnout in the experimental group significantly decreased, while the control group was not altered. On the contrary, the sense of coherence in the sample group had increased. In the case of self-esteem, the level was not altered either in sample or in the control group. The socio-psychological training in this study proved an effective support method for positively affecting burnout among students. This suggests that strategies to tackle workload will be related to the strategies of coping with stress of work, and that activities to develop stress management abilities will also be useful in preventing later development of burnout already during the performance of their profession. Personal characteristics such as self-esteem and "sense of coherence" can be an important factor influencing the individual's capability to handle burnout.

4. Conclusion

Our research results point to the fact that burnout significantly relates to low levels of self-esteem and sense of coherence and vice versa. They also confirm mutual

correlation with the length of the study. Relationships between burnout and personality characteristics are therefore complex, but in the future it will be appropriate to undertake a study to confirm the results in a larger and more consistent group of participants, since some results may have been influenced by the methodological limitations (size and composition of the sample group).

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SIGNIFICANT PERSONALITIES OF VOCAL PEDAGOGY IN THE CZECH REPUBLIC AND IN SLOVAKIA IN THE FIELD OF NON-ART SINGING

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Abstract: This paper calls attention to personalities and their methods which had a significant impact on the vocal pedagogy of non-art music in the Czech Republic and in Slovakia.

Keywords: vocal pedagogy, non-art music

1. The Competencies of Voice Teachers in Terms of Non-Art Music

In the pedagogical relationship of a directing voice teacher and a directed pupil, the objects of communication are mainly songs. In our case, songs form the syllabus which the pupils learn in the course of their lessons. A song forms a kind of communication which, with its contents, has a certain message for the recipient. In the teaching process, the voice teacher is the interpreter and decoder of the song for the pupil so that, in the process of education, the pupil learns to understand, distinguish and search for the introduced values of non-art music. To move the value aspects and taste of the pupils of primary schools of arts in the field of non-art music in the right direction, the teachers' above-mentioned proficiency is essential. However, we should note that several voice teachers at primary schools of arts studied at a time when vocal pedagogy, as well as musicology, in the field of non-art music was in a kind of vacuum or even pushed aside as a peripheral matter. Even today, there is no school system designed for training voice teachers explicitly for non-opera, non-art singing.

To a large extent, the inadequate specialist training of (not only) voice teachers is caused by the fact that young people's taste in the field of non-art music is shaped almost exclusively by the media and the "evergreens" and "hits" it broadcasts. And even these are perceived from a "consumer" aspect. The inability of primary school pupils to sing, or even their phonasthenia, has been voiced in specialist circles and at conferences focusing on the current condition of music education for a long time and extremely frequently. In reality, teachers of music education pay little, or no, attention to vocal education at this level of general education. In her paper, Voberová describes this problem as follows: *"Today, it is hard to hear live singing in one's surroundings. We can only dream about how enthusiastically young people used to sing folk songs. At schools, music education is in the last place. A general phonasthenia, the inability to sing anything, is emerging in the population. Whatever today's children and young people, but also adults, receive as stimuli is lifeless - "music" is played in the mass media, on CDs and DVDs, generally not even in their mother tongue. This so-called "music" acquires the character of infantility and serves shallow entertainment. Today, it is modern to call oneself a "singer" even if one's voice is a kind of husky, ill shrieking or an uncultivated, hard and thickened, pressed form of expression".*[10]

However, in tone production within non-art music, it is not paramount and essential to produce a beautiful vocal ideal like the one in classical bel canto. From the aspect of a voice teacher, supporting the singer's individuality is a lot more essential. Sometimes, a musician's expression, or affect, is more important than tone production and, therefore, the aesthetic ideal is sometimes violated. Singers of modern pop music strive for achieving an original tone even by making use even of defects of the vocal cords to distinguish themselves from other singers. Let us just remember Louis Armstrong with his gravelly voice who highlighted the expressively important places in music with a choking voice and, similarly to trumpet playing, used glissandos and consistent and inconsistent vibratos even in singing. The variety of accents, dramatic expressions, dynamic nuances and timbres entirely serves the pursued affect - be it sadness, nostalgia or explosiveness.

The specific competencies of a voice teacher of non-art singing have not been treated or discussed scientifically. Our pieces of knowledge come mainly from František Sedlák's Didactics of Music Education (1979) where he deals with the personality of a teacher in detail. Based on the didactic principles defined by him and on his description of the personal qualities required for the profession of a music teacher, we have formulated the following basic competencies of a voice teacher:

1. Ability to perceive music emotionally and rationally
2. Ability to interpret music vocally as well as instrumentally
3. Ability to create music independently and to convey it to the children
4. Ability to adequately verbalize emotions in music
5. Ability to actively influence a change in the use of the vocal apparatus even with muscle coordination
6. Ability to regulate the process of vocal speech
7. Ability to adjust a framework procedure to specific vocal dispositions

To these, we have added some additional competencies that correspond to the current needs and conditions of vocal pedagogy in the context of non-art music, which may generally apply to a voice teacher of art singing as well as of non-art singing.

8. Ability to regulate the process of the conscious perception of the proportion of the mixing of resonances
9. Ability to adjust the specific means of vocal expression to the aesthetic criteria of the respective genre of non-art music
10. Ability to orient oneself in the numerous styles and genres of non-art music
11. Ability to critically select the repertoire adjusted to the pupils' individual abilities and skills
12. Ability to develop individual methodical procedures that respect the pupils' individual vocal dispositions
13. Ability to support the pupils in their own selection of the repertoire

Besides the vocal activity itself, the sphere of the pedagogical influence of the voice teacher is also crucial. Despite their previous experience and adequate qualification, voice teachers should be aware of the primary need to support the pupils in maintaining the individual timbre of their voice more than in any earlier vocal methodology. An undisputable evidence of this approach is the pedagogical input of Leo Jehne and František Tugendlieb in the field of non-art singing. An interesting fact common to the two of them is that they both tried to create a kind of singing "manual" for the vocal education of "pop" singers, by which they wanted to fill the gap in this field of vocal pedagogy, and both of them came from the small Czech town of Hranice.

1.1 Robert Rosner

Robert Rosner was a pioneer in the development of modern methods of vocal pedagogy. As a teacher, he worked in Vienna for a long time and, later, in Sofia, Bulgaria, where he published his work *Govor a scena [Discourse and the Stage]*. In Slovakia, it was published in 1963 by the State Music Publishing House under the title *Bel canto a moderní hlasová pedagogika [Bel Canto and Modern Vocal Pedagogy]*. His *ABC zpěváka pop music [Alphabet of a Pop Singer]* was a unique book in the seventies even among foreign publications, presenting a complex treatment of the basic issues of the vocal training of not only singers of classical music but also of those of dance music or jazz. He himself raised several well-known singers, e.g. Yvetta Sominová, Judita Čeřovská, Rudolf Peller, Hana Hegerová and others.

1.2 Leo Jehne

Leo Jehne was born in 1930. After his initial education in economics, he decided to study musicology and aesthetics at the Faculty of Arts of Palacký University in Olomouc. During his university studies, he studied solo singing and vocal pedagogy in Ostrava from Rudolf Vašek. In 1946, he became the co-founder, pianist and arranger of the *Mistral*

ensemble which grew into a big band and became one of the most prominent amateur dance orchestras in Northern Moravia. After graduation, he worked as the director of the District Community House in Nový Jičín, sang in the Moravian Teachers' Choir, and was a soloist of the Ondráš Choir. From 1957 onwards, he was the director of the Musical Theatre in Ostrava and, at the same time, taught classical and, later, jazz singing at the conservatory. In Ostrava, he pursued other activities, too: he was a voice consultant of the *A-Zet* cabaret, collaborated with the *Divadélko Pod okapem* theatre and with the *Štafle* satirical stage, delivered lectures at a one-year course for amateur singers, which Marie Rottrová, among others, also attended. Later on, he led a whole range of similar seminars in Slovakia.

He was a voice consultant of the soloists of the *Apollo* ensemble from Prague. At the time of his activities in Ostrava, he wrote articles to local newspapers like Červený kvet, Nová svoboda, Ostravský večerník, Hudebné rozhledy, and he attracted attention especially with his profile *Umění a styl Evy Pilarové [The Art and Style of Eva Pilarová]*, which opened his way to other periodicals as well. Everywhere, he focused primarily on vocal expressions mainly in the field of jazz and pop music. Besides his work in the field of dramaturgy and organizing, Jahne devoted attention especially to the practice of vocal expressions in jazz and to criticism in this field. Although, institutionally, he taught at the Primary School of Arts in Prague, he was always significantly active in this field as the leader of various seminars and trainings or as a voice consultant and specialist in voice rehabilitation. This is what most of his publishing activities focused on. His significant output in this field is his book *Chcete zpívat pop? [Do You Want to Sing Pop?]*. His experience in this field, translated into the above-mentioned manual, was based on Professor Rudolf Vašek's work, which he applied to the interpretation dance songs. He also relied on Rosner's *Abeceda zpěváka pop music [The Alphabet of a Pop Singer]*.[7] The book contains a short overview of the history of popular music and jazz and gives instructions for achieving a melodious voice with specific music samples of vocal exercises. It does not teach to produce tones separated from lyrics but tries to apply the principles directly within the lyrics. His rule was to sing songs in the training phase as if with head voice, to maintain a feeling of lightness. At the same time, the singer should be able to return from the head voice to "fully resonant" forte at any time. He placed great emphasis on pronunciation and diction in singing. Despite the fact that his book appeared in 1970, it contains still up-to-date guidance for performance and for ways to work with a microphone.

1.3 František Tugendlieb

František Tugendlieb was born in 1929 in a small town called Hranice in Moravia, in a family of a businessman dealing with textiles. However, his parents were good amateur musicians. His father, also called František, played the violin and the cello and sang in the urban choir.

His mother, Eliška, also sang and played the piano. His three years elder brother, Vitězslav Tugendlieb, composed some music and worked as a teacher, organist and choirmaster. According to an interview with presenter Radka Rozkovcová in Proglas Radio on his 90th birthday, he is the only living Tugendlieb in the Czech Republic. Despite a prominent musical talent in the Tugendlieb family, both brothers submitted themselves to the will of their parents to study at schools which prepared them for taking over their well-established textile company. Vitězslav studied at a business academy and František studied at the State Textile School in Prostějov. After their secondary school studies, they both developed a keen interested in jazz in 1945. At that time, František played the clarinet and, along with some other amateur musicians, they formed a jazz band in which they played their own improvisations and arrangements while working in their parents' shop. From September 1946 to November 1947, both of them studied English at Hassobury College in England, where their connection to this genre strengthened even more. They even recorded their playing jazz together for the BBC Radio on 26 March 1947. In 1946, an ensemble called *Mistral* was formed in Hranice which later grew into a big band and became one of the most prominent amateur dance orchestras in Moravia. Its co-founder and arranger was Leo Jehne, who later became a musicologist. The Tugendlieb brothers joined this orchestra, led by Jiří Pavelka, in 1947. In this interwar period, it could already be felt that the alliance with the former Soviet Union would lead to reforms aimed at the elimination of private ownership and to a gradual securing of the Communist Party's power. The Tugendlieb family saw the great uncertainty of their business and, after 1948, they had to close down their shop. In a later interview for the život.sk portal in 2009, František Tugendlieb talked about this distressful period with light-hearted humour: *"I had to go to the textile school to be able to direct the production. I didn't care about it and, in the end, I was happy that the Communists freed me from it"*.[11] The father and both of his sons got employed in a national factory, the Cement and Lime Kiln of Hranice (hereinafter referred to as CLKH) In 1952, the Mistral dance orchestra from Hranice broke up because most of its members went for compulsory military service. On František Tugendlieb's initiative, the remaining members formed an exceptionally successful band at the CLKH. However, the socialist regime did not favour western-style music. In the spring of 1953, the District National Committee banned the activities of the band. A letter of 1953 sent to the Revolutionary Trade Union Movement (ROH) in the CLKH says: *"...The musical standard of the ensemble is such that, from the aspect of socialist realism, it has not brought anything in its activities... Even under the disguise of black folk music, such ensembles conceal their sinister intentions in music which does not have any educational goals... By playing mostly western music, their dance events are sought after by young people from among the urban bourgoisie and by people who avoid work..."* [8] In 1954, both brothers passed qualifying exams in Zlín and became musicians by profession. The exams were organized by the *Hudební a artistická ústředňa [Central Bureau for Music and Arts]* in Prague, which had an exclusive right to register, coordinate and intermediate musical productions.

Subsequently, they quit their jobs in the CLKH and formed a jazz trio with Bohuslav Morch in 1955. However, the activities of this long-haired musician of bourgeois origin, playing imperialistic jazz, were soon prohibited. As he himself put it, *"for spreading cosmopolitan pseudo-art"*. He sold his instruments, began to learn singing from Professor Vašek in Ostrava, and started performing in the choir of the Opera in Opava. However, an unfavourable cadre opinion again crossed his path leading to a soloist career. At that time, he was already married with two children and a low income. Therefore, he looked for opportunities which he found in Banská Bystrica where he got admitted to the opera as a soloist. His teaching career also started at that time. It was the beginning of his half-century spent in Slovakia with smaller breaks when, in the mid-sixties, the political conditions relaxed, and he was invited to play jazz in Western Germany. After his return, he joined the legendary Tatra Revue in Bratislava as a musician and singer. Tugendlieb was a member of *Tanečný orchester Olda Zemana [Oldo Zeman's Dance Orchestra]* who, thanks to his experience abroad and theoretical knowledge in the field of jazz, managed to concentrate several jazz-loving musicians. It was in Bratislava that, as a voice teacher, he started to specialize on training singers of popular music. His first students included some of the pop stars of the time, *Ivo Heller, Zdeno Sychra* and *Nora Blahová*, who used to go to him to Tatra Revue. He developed a singing method based on gymnastics of the vocal muscle apparatus rather than the singers' emotions. Critics, who did not distinguish between opera and pop singing, called him a charlatan. Today, his method is taught at the Prague Conservatory and even at the American Performing Artist School. He was active in the field of vocal pedagogy until his fifties. By that time, all of the top Slovak and Czech pop singers consulted him at least once: Karel Gott, Hana Hegerová, Iveta Bartošová, Petr Kotvald, Karol Duchoň, Marika Gombitová, Alena Čermáková, Meky Žbirka, Oľga Záblacká, Lída Nopová, Peter Breiner, Peter Lipa, Hana Křížková, Dara Rollincová etc. In Slovakia, his method was carried on by chanson singer and director Alena Čermáková, who shot a short documentary film about him in 1999.

His voice training methods are summarized in the book *Hlasová výchova spevákov populárnej hudby [Voice Training of Pop Singers]* published in 1979 by the Osvetový ústav [Edification Institute] in Bratislava. The foreword to its second edition in 2002 was written by Peter Lipa and Lída Nopová, the latter teaching with his method at the Popular Music Department of the Prague Conservatory. The ceremonial launching of the book was accompanied by a concert in Prague where Tugendlieb's students, *Iveta Bartošová, Camilla Brecka, Beáta Dubasová, Petr Kotvald, Hanka Křížková, Vašo Patejdl, Jakub Smolík, Oľga Záblacká, Jitka Zelenková* and *Miroslav Žbirka*, performed.
František Tugendlieb's pedagogical achievements are underlined not only by accomplished singers of the Czechoslovak scene of pop music but also by voice teachers and followers of his pedagogical legacy. The key success of Tugendlieb's method lies in grasping the singer's individuality in all its scope, and in a technically perfect control over one's vocal apparatus. According to Lída

Nopová, he does not raise *"singers who sing beautifully"* but he raises personalities.

Tugendlieb placed the main emphasis on the vocal cords, and everything else was to be adjusted to them. His vocal training focused primarily on the development of the external tensors (which he calls tensors of a *full* voice) and on their coordination with the internal tensors (*falsetto tensor*).

The second phonatory muscle is the vocalis one (parallel to the vocal cords), which forms the main body of the vocal folds. According to Tugendlieb, the tensors cannot be directly controlled by will, but they can be influenced indirectly, by correctly applied exercises. By their correct use, the vocal cords become more elastic and their response to respiratory stimuli becomes more efficient. Therefore, in Tugendlieb's view, a physiologically correctly produced voice significantly lengthens the breath as well. Due to their different physiological principles for voice production, he recommends to female voices not to be trained by the pedagogical method used in the field of opera singing. The initial phase of vocal exercises (*gymnastics of the vocal cords* – as Tugendlieb himself calls it) is based on falsetto in pianissimo. In fact, it is the activation of the edges of the vocal cords.[9] He recommended to execute the transition from open falsetto to full voice in a way that no change occurred, except for engaging the tensors of full voice. Tugendlieb's voice training consists of six basic steps:

1. Developing an isolated falsetto throughout the vocal range
2. Opening the isolated falsetto
3. Transitions from open isolated falsetto to full voice
4. Adding articulation in both functions
5. Transitions from full voice to open falsetto and back
6. Developing full voice from pianissimo to fortissimo and back

The theoretical pieces of knowledge present in Tugendlieb's book brought about positive practical results for several singers focusing on non-art music. His method and his exercises have a rehabilitating and corrective potential which maintains the maximum naturalness of the voice.

2. Conclusion

Voice production is a complex, coordinated activity of the auditory system, the respiratory system, the vocal apparatus and the articulatory apparatus, whose interplay of neuromuscular physiological and psychological processes is controlled by the brain and the central nervous system. Coordination and interplay are not innate, they are acquired in the process of ontogenesis and training.[6] In fact, vocal activity developed side by side with the perfection of hearing and is physiogenetically older than speech.[5] That is why I consider the professional, erudite pedagogical guidance of young beginner singers essential. We live at a time of a constantly developing world of *show business* and of highly publicised singing competitions, which are closely followed by the young generation and which are, therefore, responsible for their gradually shaping taste and models in music. Vocal habits and techniques, which young people often "pick up" and imitate, still do not stand on solid ground in Slovakia.

By solid ground, we mean a well-developed, unified methodology for non-art singing, firmly focused on the field of non-art singing beginning already with primary music education (primary schools of arts) and continued to conservatory studies with the possibility to specialize in jazz or musical singing.

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POPULAR – EDUCATIONAL TEXTS IN PRINT MEDIA FOR CHILD ADDRESSEE

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Abstract: The text that brings professional content is difficult for a child's addressee. The aim of this article was to find out if the editorial staff of children's magazines publish texts with professional content. We conducted the analysis on a sample of 106 European and some non-European magazines. As an example, we used a comparison with magazines for children in one country - the Slovak Republic. By quantitative and qualitative analysis, we found that approximately two-thirds of children's magazines publish texts with professional content in the form of popular-educational articles adapted to the age of the recipients.

Keywords: children's magazines, popular-educational article, universal focus

1. Introduction

The knowledge base of child addressees is considerably smaller compared to adult recipients, yet the editorial staff of children's magazines communicate professional content to readers, using a form appropriate to their age.

Making professional topics receptive and publishing them in the media requires knowledge and use of modifying principles. "In principle, there are three basic methods:

a) adaptation of professional or educational units for the needs of journalism...
b) transposition of selected factual and abstract elements of theoretical-cognitive activity, i.e. transfer of scientific and technical information to more appropriate and receptive levels...
c) transforming, that is a modification of an invariant information base which causes that it is the mediated presentation of knowledge, the means of indirect action that leads to the desired effects on the recipient."[1]

To put it simply, the popularization of expertise to reach a wider public means transferring information from the text of the educational style to the texts of the journalistic style, while „style is the way of expression, which arises from purposeful selection, legal arrangement and use of linguistic and non-linguistic means with respect to thematic, situation, function, intention of the author and the content components of expression."[2]

While educational genres dominate in journals of professional and scientific focus, popular-educational texts dominate in print media for the child's recipient in texts with expert information, and the article as a genre in them. "The article is a smaller-scale contextual unit in which the results of scientific research are publicized, applied, popularized in a generally easier style. While new and previously unknown things are addressed and analysed in the dissertation and study, no such claims are made to the article. In an article - as opposed to purely scientific genres - the didactic aspect of the means of expression is further emphasized. "[3]

The vocabulary of a popular-educational article in print media for the child's addressee is not so saturated with the technical terms that the child's addressee cannot understand it. The unknown or less known technical terms and concepts are explained in different ways in the articles. [4]

The popular-educational article is richer in verbs compared to scientific texts. It is a monological genre, more subjective than scientific texts.

2. Occurrence of professional texts in children's magazines

The text that brings professional content is difficult for a child's addressee. The aim of this article was to find out if the editorial staff of children's magazines publish texts with professional content.

Table 1 Popular-educational articles in foreign magazines for children's addressees

MAGAZINE NAME	STATE OF ISSUE OR DISTRIBUTION	POPULAR-EDUCATIONAL TEXTS
Barbapapa	Belgium	8,33%
Nickjr.doeboek (Denksport)	Belgium	0,00%
Speelboek (Denksport)	Belgium	0,00%
Arti	Bulgaria	15,91%
Baraban	Bulgaria	29,17%
Brborino	Bulgaria	5,00%
Maša i Mečoka	Bulgaria	0,00%
Pčelica	Bulgaria	21,43%
Zanimavko	Bulgaria	0,00%
Xekoykoy	Cyprus	6,25%
Čtyřlístek	Czechia	7,14%
Materídouška	Czechia	20,83%
Matýsek	Czechia	25,00%
Pastelka	Czechia	22,00%
Sluníčko	Czechia	2,27%
Ribica	Monte Negro	5,56%
Anders and junior	Denmark	13,89%
Kvik kids	Denmark	0,00%
Winx	Denmark	1,47%
Filly	Finland	0,00%

Moviestar planet	Finland	8,33%
Pets	Finland	41,67%
Astrapi	France	27,08%
P´tit Loup	France	27,63%
Titi	France	0,00%
Wapiti	France	69,23%
Filly	Greece	5,56%
Bobo	Netherlands	4,17%
Plus Penny	Netherlands	21,59%
Sesamstraat	Netherlands	0,00%
Tina	Netherlands	5,00%
Zapp Lente	Netherlands	7,69%
Bojanka	Croatia	0,00%
Dječji klub	Croatia	0,00%
Dječji zabavnik	Croatia	40,79%
Junior Extra	Croatia	0,00%
Škrinjica	Croatia	5,36%
Zagonetke	Croatia	5,00%
Paw Patrol	Ireland	0,00%
Bing	Ireland	5,55%
Bitute	Lithuania	52,78%
Dambo	Latvia	0,00%
Kipars	Latvia	0,00%
Spicite	Latvia	0,00%
Peppa Pig	Luxemburg	5,00%
Ablakképek	Hungary	0,00%
Dormogo Domotor	Hungary	8,33%
Kifestó	Hungary	0,00%
Dóra	Hungary	0,00%
Vakáció	Hungary	0,00%
Mia and Me	Moldova	7,69%
Neposeda	Moldova	0,00%
Basteln mit Kinderen	Germany	0,00%
Benjamin Blumchen	Germany	0,00%
Bummi	Germany	7,50%
Diddle	Germany	9,62%
Lowenzahn	Germany	50,00%
Pettersson und Findus	Germany	9,72%
Pumucki	Germany	9,72%
Rätsels pas	Germany	14,71%
Tabaluga	Germany	22,73%
Wissens Rätsel	Germany	69,44%
Dora	Norway	5,56%
Moshi monsters	Norway	0,00%
Naucz mnie mamo	Poland	0,00%
Truskawkowe Ciastko	Poland	0,00%
Zabawy z Tygryskiem	Poland	0,00%
Trabalhos manuais	Portugal	0,00%
Comunicare	Romania	0,00%
Incepe meciul!	Romania	0,00%
Benny	Romania	38,88%
Cei trei purcelusi	Romania	0,00%
Playmobil	Romania	0,00%
Jocuri creative	Romania	0,00%
Trolii	Romania	0,00%
Akademiki	Russia	0,00%
PoniMaška	Russia	0,00%
Uchtyška	Russia	22,22%
Maxík	Slovakia	12,50%
Zvonček	Slovakia	8,33%
Boni	Slovenia	0,00%
Cicido	Slovenia	0,00%
Duhec	Slovenia	0,00%
Junior extra	Slovenia	0,00%
Zmajček	Slovenia	3,13%
Boom E Rang	Serbia	21,05%
Igraonica	Serbia	17,86%

Zabavnik	Serbia	20,59%
Animais	Spain	55,56%
Peppa	Spain	0,00%
Pettson och Findus	Sweden	6,25%
Pyssel & Knap	Sweden	0,00%
Giocolandia	Italy	10,42%
Pico	Italy	5,56%
Caillou	Turkey	0,00%
Cocuk	Turkey	24,04%
Panini	Turkey	16,67%
Kehrypy	Ukraine	0,00%
Girls	USA	2,94%
Favourites	Great Britain	6,25%
Fifi	Great Britain	0,00%
Mizz	Great Britain	0,00%
Princess	Great Britain	0,00%
Art	Great Britain	5,55%

Source: own research

The table shows that out of 106 children's magazines analysed, 47 of them do not publish popular-educational articles, representing 44.34%. The analysis shows that almost two-thirds of European and non-European children's magazines convey professional content in the form of popular-educational articles. In those European children's magazines that publish educational sections, their share varies, ranging from 1.47% of the total magazine content to 69.44% of the content. Higher incidence of professional content columns is in most countries' magazines of so called former Eastern Block, but those that are edited in the country (i.e. not only distributed in the language mutation of the country). This is related to the tradition of using journals in the teaching process and the related requirements for their content (mass demand at schools). For comparison, we will present an analysis of children's magazines published in the Slovak Republic.

Table 2 Topics share in popular-educational articles in Slovak magazines for pre-school and younger school age children

JOURNAL	HISTORY	GEOGR.	ASTRO-NOMY	HEALTH & SPORT	NATURE
Adamko	0,00%	5,55%	0,00%	0,00%	5,55%
Fifík	15,00%	0,00%	0,00%	0,00%	10,00%
Fľak	0,00%	0,00%	0,00%	5,55%	2,77%
Lienka	0,00%	12,50%	0,00%	33,30%	12,50%
Maxík	3,13%	6,28%	3,13%	3,13%	3,13%
Slniečko	12,50%	4,16%	0,00%	0,00%	16,60%
Šikovníček	2,50%	0,00%	0,00%	0,00%	5,00%
Včielka	0,00%	0,00%	0,00%	0,00%	7,50%
Vrabček	0,00%	2,77%	0,00%	0,00%	0,00%
Zornička	0,00%	10,00%	2,50%	0,00%	10,00%
Zvonček	0,00%	0,00%	0,00%	8,33%	16,66%

Source: own research

Professional content is found in all Slovak magazines for children of preschool as well as younger school age with general focus. These are mainly regular columns on nature, space, European countries and so on. Articles with science content are most common. As the table shows, they are published by all Slovak children's magazines. Geography

is significantly represented as a topic. Less frequent in particular magazines are articles focused on astronomy, health and sport and history.

3. Conclusions

While popular-educational articles are found in all general-focus magazines published in Slovakia, there are only two-thirds of them in European and non-European children's magazines, which is a significant difference in their occurrence. The most common topic in the popular educational articles published in children's magazines is the nature theme.

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ANALYSIS OF VOLUNTARY NON-ENGAGEMENT OF YOUNG MEN IN THE LIFE OF SOCIETY: COMPUTER GAMES AND ONLINE PORN – A CHALLENGE FOR SOCIAL WORK

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Abstract: The present analysis addresses voluntary non-engagement of young men in the life of society, the symptoms of which include (excessive) computer games playing and (excessive) online porn watching. These two activities present a safe place. The aim of the analysis was to identify contextual escapes of young men to their safe place, especially in Slovak and foreign studies. Data was analysed using an analytical and synthetic approach. The analysis was conducted on the studies selected upon specified criteria, using the Google search engine, Web of Science, Scopus, and ResearchGate databases. Keywords and their combinations were used during the search. The analysis shows, in particular, that both in Slovakia and abroad (young) men are more likely to escape to their safe place than (young) women and that lower age contributes to such escapes. These findings present a challenge for social work. The options in this area include social prevention and internet social counselling.

Key words: computer games, online porn, young men, social functioning, social work

1. Introduction

The presented issue is not addressed in our professional community as described in the paper. Masculinity collapses. Symptoms of this collapse include excessive playing computer games (PC games) and porn watching, disillusionment and drug use. Young (adolescent A/N) men collectively choose not to engage with the life in society. Digital technologies (DT) create alternative realities that are less demanding and more rewarding for many. Nevertheless, they distort their way of thinking about sex, limit their ability to socialize and discourage them from exploiting the possibilities of life in the real world [1]. In defining the goal of social work, we are inclined to the concept of social functioning [2]. Therefore, we believe that the solution to this problem shall also include a solution in terms of social issues with the help of social work with family, youth and addicts.

1.1 Behavioural Addiction and Young Men

Playing PC games (video games) and watching online porn (video/movie) is a refuge for young men. Therefore, the paper focuses on these activities. We assume that under the influence of the new difficulties associated with the uncertain world faced by young men, many of them choose their own isolation in a safe place where they control the results of their own activities, where they are not afraid of the reaction and where they are praised for their abilities. PC games and pornography are exactly such a refuge [1]. However, behavioural addiction (BA) is seen in the context of a social environment full of pitfalls for a young man. And such traps in connection with BA can contribute to the emergence of these addictions. This paper focuses on the (online) computer games addiction (CGA) and internet porn addiction (IPA). Both can be categorized as the Internet addictions (IA) [3]. Furthermore, online porn also belongs to cybersex [7]. CGA and IPA are considered to be BAs that arise when a person cannot resist behaviour that, despite the short-term satisfaction of

an intense psychological need, causes serious damage in the long run [4]. CGA has not been included in the current Diagnostic and Statistical Manual of Mental Disorders V (DSM-V), but Internet Gaming Disorder has, although only in Section III. Thus, it needs further research and practice to receive formal recognition [5]. However, the Gaming Disorder has been added to the new 11th revision of the International Classification of Diseases (ICD-11) [6]. Sex addiction has not been included in the current DSM-V and thus not at all in the IPA [7]. However, at least the Compulsive Sexual Behaviour Disorder has been added to the new ICD-11 [8].

CGA and IPA are different because there is a difference between them and other addictions. Both are associated with the addiction to excitement. In order to get the same stimulation, you keep needing new material [9]. In general, the consequences of BA include: (1) giving up other activities as they are becoming less pleasing than before; (2) disruption to the performance of life roles; (3) deterioration of social relations; (4) legal issues; (5) engaging in hazardous situations (6) physical injury; (7) health deterioration; (8) financial losses; and (9) emotional trauma [4]. Concerns related to playing PC games occur when they are played excessively, especially in complete social isolation, because in this case they reflect negatively on the abilities and interest to develop normal interpersonal relationships. Furthermore, it should be emphasized that the problem exists only in overuse of pornography. In addition, there is another problem, because for youngsters who have not yet had any sexual experience and have not received sexual education, watching porn can be a serious problem [9]. In short, playing PC games and watching porn are signs and causes of overall decline in young men. Excessive playing of pc games or watching porn develops social, sexual and motivational problems and vice versa. This process also retains a cycle of social isolation [1]. And if we understand

the family as a system, we emphasize co-dependency in which family members allow the addicted member to run away from his responsibility [10].

1.2 Selected factors of the issue

Key factors to be considered:

(1.) *Postmodern family and absence of a male pattern*: in relation to family functions the following characteristics of such a family are emphasized: instability in partnership [11] and two-career marriages [12]. The causes of greater susceptibility of boys to playing pc games and watching porn can include a reduction in generations living in one household, divorce rate, or single motherhood resulting in the absence of a father in family [1]. In 1991, of all households in Slovakia 10% represented single-parent families [13], while in 2011 the number increased to 16% [14]. (2.) *Feminization of education*: upbringing and later also education (even in a family where education falls on women) a young man may miss patterns of how male social roles are constructed [15]. In Slovakia, the number of men in the pedagogical staff in the school year 2017/2018 was 23.01% [16]. (3.) *Young adult crisis*: appears between the 18th and 30th years of life. It is often associated with a feeling of excessive opportunities or far-reaching life decisions that are not appropriate to the subjective feeling of personal maturity [17]. (4.) *Specifics of men*: this includes passivity. It is manifested by a decline in their interest in jobs and employment, poor performance at school, the reluctance to leave home, as well as retreat into solitude and isolation from society. Many of them often live with their parents [1]. In 2016, up to 75.9% of young men in Slovakia aged 18 to 34 years lived with their parents, which was a higher number compared to girls (63.2%) [18]. In Slovakia, the PISA 2015 study presented findings mainly to the detriment of boys (in scientific, reading and financial literacy) [19]. Moreover, many young men are not interested in long-term partnerships, marriage, fatherhood, or even becoming head of the family. Furthermore, most of the new jobs offered in developed countries are for candidates with higher than secondary education, which is not a good situation for less educated men. Finally, men prefer to look at erotic pictures and movies six times more than women. Likewise, they are more likely to succumb to video games [1]. (5.) *Gender equality policy*: men around the world have to deal with the challenges they have not yet encountered. During the last century, when social roles of both genders changed, mainly due to women's initiatives, men's responses to these changes changed as well [20]. Men are trapped. They do not know what men and women are supposed to be like making it even more difficult to find a common language of equal partners. All other potential roles threaten traditional manhood [9].

Based on the literature review, the issue was identified as follows: voluntary non-engagement of young men in the life of society in the context of the negative social consequences of CGA and IPA. It is believed that the issue ultimately makes it impossible for young men to socialize, develop, and thus mature successfully. The aim of the analysis was to identify contextual escapes of young men to their safe place mainly in Slovak and foreign studies (pc games and online porn).

2. Methods

The analysis of studies focused on findings that document the escapes of young men to their safe place. The Google search engine, Web of Science, Scopus, and ResearchGate databases were used to find them. In the search keywords and their combinations were used. Thirteen studies (out of 15) from Slovakia and abroad conducted between 2013 and 2019 were selected. The sample of the studies conducted in Slovakia ranged from 167 to 4,074 and abroad from 201 to 573. Two review studies were selected among the foreign studies. The selection criteria for the studies included: availability, timeliness, CGA, IPA, IA, youth, gender, negative social consequences, as well as negative findings in relation to the issue.

Table 1 Overview of studies selected for analysis

Ref.	Topic	Country	Sample
[21]	IA (CGA and IPA)	Slovakia	707 (340 men; 367 women; average age 16.9)
[22]	IA (CGA and IPA)	Slovakia	1,051 (33.4% of men; 66.6% of women; 15 – 30 years)
[23]	IA (CGA a IPA)	Slovakia	167 (44.9 % of men; 51.10% of women; 25 – 55 years)
[24]	IA (CGA and IPA)	Slovakia	306 (102 men; 204 women; average age 22.3)
[25]	social networks (CGA)	Slovakia	1,035 (11 – 13 years and 15 – 18 years)
[26]	CGA	Slovakia a Czech Republic	4,074 MMORPG and MOBA players (93.5% of men; 6.5% of women; average age 20.8)
[27]	CGA	Slovakia a Czech Republic	786 players (87% of men; 13% of women; average age 21)
[28]	pornography	Slovakia	448 (215 men; 229 women) and after exclusion: 254 (15 – 51 years and more)
[29]	CGA	India	250 (42.8 % of men; 57.2 % of women; 17 – 27 years)
[30]	smartphone; social networks (IA)	Japan	573 (180 men; 393 women; average age 19.3)
[31]	IPA	Italy	201 (82 men; 119 women; average age 27.43)
[32]	pornography	Europe; Asia; USA; Canada; Africa; Australia; a Israel	75 studies; samples: from 97 to 11,712 respondents
[33]	IA (CGA and IPA)	Europe; USA; Asia; North Africa; and Mexico	68 studies after 2000; at least 1,000 respondents

MMORPG – Massively-Multiplayer Online Role Playing Game; MOBA – Multiplayer Online Battle Arena

3. Results

The analysis included the findings in relation to the objective of the analysis and the criteria for the study selection into analysis.

Table 2 Overview of selected results for analysis

Ref.	Selected results
[21]	Women scored higher than men in the Internet Addiction Test.
[22]	Significant differences between gender and online sex (more men) were found; the strongest IA correlates with online sex; most often, respondents use online games on the Internet; and no link between IA and playing online games was identified.
[23]	Men scored higher in The Internet Related Problem Scale compared to women; men watch more online sex than women; and the link between online games and The Internet Related Problem Scale results was identified.
[24]	Addictive behaviour may decrease with higher age.
[25]	39.1% of children and 10.8% of adolescents use Facebook to play games; 24% of children and 8.3% of adolescents play games and use Facebook applications frequently; and 18.9% of children and 4.8% of adolescents almost always play games and use Facebook applications.
[26]	Women spend significantly less time playing than men during the week. The addiction negatively and significantly correlated with functional interpersonal functioning and age. There is a weak link between disorders in interpersonal relationships and online PC games playing addiction. Younger players who prefer the MOBA genre to the MMORPG and those who spend more time playing seem to be more sensitive to online game playing addiction.
[27]	On average, men spend 23 hours/week playing MMORPG and women spend 20 hours/week playing MMORPG. 86.2% of men and 13.8% of women were identified as addicted. 21 players left their partner due to their playing. In the addicted and non-addicted players, the social consequences of playing MMORPGs are most serious.
[28]	92.66% of men and 61.53% of women watch pornography. 63 respondents aged 26-30 (majority of the research sample) say they watch pornography. Higher frequency of pornography watching is positively associated with the fact that an individual considers a marriage as an inseparable couple and is more willing to tolerate pornography in a partner as well as infidelity. 78.1% of respondents encounter pornography via the Internet.
[29]	Significantly higher occurrence of problematic playing of online pc games was found in men rather than in women.
[30]	On average, men spend more hours on the Internet than women on a business day or weekend. Only slightly more men have been identified in the risk zone of using the Internet compared to women. Only slightly more women than men have been identified in the IA zone. More women showed addiction to smartphone.
[31]	Men gained higher scores in IPA testing than women.
[32]	Most likely, the users of pornography include men in later puberty, adolescents seeking sensations with weak or troubled relationships in the family.
[33]	Adolescents: in 9 studies, IA is associated with men and only in 1 study with women. In 4 studies, IA is associated with online games. Adults: in 9 studies, IA is associated with men and in 2 studies with younger age. In 2 studies focused on online gaming and other applications and in 1 study combining online gaming with openness to experience. General: in 1 study there is an association of online sex, younger people and men with IA; in 1 study online sex is associated with IA; and in 1 study IA is associated with online pornography.

MMORPG – Massively-Multiplayer Online Role Playing Game; MOBA – Multiplayer Online Battle Arena

4. Discussion and conclusions

The above criteria were selected in order to acquire current findings, point out adolescence and young adulthood, men and the role of social work.

The studies from Slovakia also included a study of pornography without an emphasis on the mass media through which it is accessed. However, the vast majority pointed to the Internet [28]. The results of 4 studies are emphasized, as they identified possible social dysfunction as a consequence of CGA and IPA or the need for social intervention ([26] [27] [28] [32]). Foreign studies also included a research on the general use of pornography. The specified predictors may also vary with regard to access to pornography [32]. However, young people aged 15 to 20 consider themselves as well as the following generation to be the virtual generation. They are those who have had contact with PCs, mobile phones, laptops and especially the Internet since childhood [34]. So it is assumed that the Internet is a form of access to porn watching among the young.

The results show that in Slovakia and abroad (young) men are more likely to flee to their safe place than (young) women and that lower age contributes to these escapes. The author believes that it is a "foreshadow" of the presented issue.

This is despite the fact that in Slovakia's current study, women scored higher in IA than men [21], as well as despite the fact that more women than men were identified in the IA zone in the foreign current study [30]. In Slovakia, this is explained by the link between mobile phone addiction and women [21]. Similarly, this can be applied to the situation abroad [30]. Thus, more intensive use of smartphones is the dominance of women.

A reduction in risk behaviour resulting from the analysis may be found in social prevention at all levels.

This is done with the help of social work. Experts agree that it is about preventing socio-pathological phenomena [35]. Human relations with BA are not unalterable [4]. CGA is not easy to resolve because addicts are forced to use the computer in order to function in the community [36]. Cybersex is also related to the use of the Internet, the absolute restriction of which is impossible [7]. Thus, in both cases, a necessity to use DT presents the risk of relapse or recidivism. It is important for CGA and IPA carriers to use mainly secondary and tertiary prevention to optimize the social functioning of the addict by empowering in sociotherapy. Within sociotherapy, a social worker can use social counselling to work with the family, youth and addicts. Furthermore, its application can be seen in crisis social counselling in the context of cyberspace.

In order to provide effective and targeted social counselling, it is necessary to understand the life of individuals in cyberspace as a lifestyle and to accept the resources that come from it. These conditions are crucial.

In the present issue, the Internet social counselling is preferred, which is an advisory service to clients who find themselves in a situation where they seek help from experts through the Internet and who do not want to or cannot communicate with an expert by telephone or in person [37]. At most, the potential of the Internet in social counselling is also seen in its service – social media. Yet, in this context no further analysis of the cyberspace possibilities is conducted though it would also be worth a professional discussion.

Limits

The results of the analysis should be taken with some caution. The analysis included mostly Slovak and available studies. The studies focused only on online pc games playing. Moreover, only 2 studies address social networks. The overview contains more results in connection with pornography watching in general or in the IA context. Despite these limits, the analysis is seen as a valuable contribution to the professional discussion.

Acknowledgements

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SEXUAL ABUSE AND SEXUAL EXPLOITATION NOT ONLY IN THE CONTEXT OF CRIMINAL LAW

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Abstract: Sexual abuse and child sexual exploitation are the most serious, socially unacceptable and illegal phenomenoms, which interfere with the intimate sphere of the child, dishonor child´s human rights and leave serious traumatic consequences throughout his life. This current phenomenom is globally growing around the world and is often overlooked. The author of this article deals with this phenomenom not only from criminal aspects, but also psychological and social aspects. It also deals with the definition of child sexual abuse at the level od European and Slovak criminal law, specifies its forms and symptoms, analyzes it as a crime. The author is further focused on the various forms of child sexual exploitation.

Keywords: sexual abuse, sexual exploitation, child, crime, offender

1. Introduction

The child is an entity of being which represents the highest value in family and society. Everything that is happening around the child should be realized in favour of the child. It means that child should grow up and live in favourable, happy and safe social conditions and also should be surrounded by lovely and perfect care. Unfortunately it is not always that way. Some children during their lifetime find themselves in difficult situations, where they are beaten maliciously attacked, mistreated, intimidated or sexual abused. They are defenceless and unable to improve these bad conditions. The fact that the child as the most vulnerable person is subjected to humiliation, suffering, harm is cruel and paintful and must be definitely stopped.

Anywhere and anytime a child of different ages, gender, race, nationality or social status can become a victim of sexual abuse and sexual exploitation. These crimes degrade child´s personality, negatively infervere child´s human dignity and integrity. It harms not only the body, but also the soul. We can explicitly say, that sexual abuse means to exposing the child to abuse. The behavior can be termed abusive „when the sexual behavior of an adult or older child/teen activates a developmentally inappropriate stimulation of the sexual self of a child".[1]

Sexual abuse includes sexual activities, sexual contact and sexual conduct. Sexual abuse is a form of deliquency, where the child is directly used for sexual stimulation to sexually satisfy other people.

According to Council of Europe Covention on the Protection of Children agianst sexual exploitation and sexual abuse is considered as:

- engaging in sexual activities with a child who, according to the relevant provisions of national law, has not reached the legal age for sexual activities;

- engaging in sexual activities with a child where: use is made of coercion, force or threats; or abuse is made of a recognised position of trust, authority or influence over the child, including within the family; or abuse is made of a particularly vulnerable situation of the child, notably because of a mental or physical disability or a situation of dependence.[2]

The strategy of sexual abuse is often well planned and premeditated to avoid revealing this crime. The offenders use a different kind of tactics as manipulation, strength, power to have the best position for abuse. Sexual abused child is in a defensive position involuntarily, with silent consent and against it´s will. Child as a vulnerable person can´t give to offender a free consent and can´t authoritatively oppose the offender.[3] Many experts understand sexual abuse as an asymmetric model of sexual interaction, where one person uses another for their own benefit because of their greater power. Sexual abuse is therefore also considered as sexualized violence, where the sexuality is an abuse of power, which may not be sexually motivated.[4]

According to Karkoskova in sexual abuse the child is involved by adults, minors, people with responsibility, trust, power, authority, people having influence over the child into sthe sexual activities.[5] Child does not understand these sexual activities and is not enough developed to give a free consent, nevertheless is still forced to do sexual activities, which is against law and social values. Sexual abuse is divided in to two groups. Intrafamiliar and extrafamiliar. Intrafamiliar sexual abuse is the most serious form of abuse because it happens in family, where the child should have safety, protection and care instead of

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[1] GOODYEAR-BROWN, P. – FATH, A. – MYERS, I. *Handbook of Child Sexual Abuse: Identifikation, Assessment and Treatment.* Hoboken: New Jersey: John Wiley & Sons, Inc., 2012, p. 5

[2] Council of Europe Convention on the Protection of Children against Sexual Exploitation and Sexual Abuse, article 18 [Dostupné v Zbierke zákonov Oznámenie č. 164/2016 Z. z.]

[3] ČÍRTKOVÁ, L. *Forenzní psychologie.* 3. vyd. Plzeň: Aleš Čeněk, 2013, s. 165

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that the child feels shamed, betrayed, disappointed because they have to fulfill sexual desires from someone who is close to him. Intrafamiliar sexual abuse means, that the child is sexual abused at home by people that have a close relationship to the child. The offender can be parent, grandparent, sibling, uncle. The child is persuaded that these sexual activities are normal and natural.[6] Instrafamiliar sexual abuse is also called incest, where sexual contact happens between blood relatives. Relatives in a straight line are adscendents and descendants. Siblings are brother and sister, no mater if they have both common parents or just only one.[7]

Extrafamiliar sexual abuse happens away from home and outside the family, where the offender is not from the same family and is not in close relation with the victim. The offender is often teacher, guardian, priest or unknown offender.

According to the method of performance sexual abuse is contact and contactless. Contactless forms of sexual abuse include harassment by obscene calls, forced to be naked, stripping, posing for taking photos, masturbation, forced to watch sexual intercourse and phornographic movies, sexual jokes and conversations. Contact forms of sexual abuse have penetrative character (penetration into the child´s body) and nonpenetrative character (without penetration into the child´s body). Penetrative character include anal intercourse, oral intercourse, sexual intercourse, putting fingers, tounge or other items and erotic toys into the child´s vagina or anus. Nonpenetrative character include sexual stimulation by rubbing genitals against the victim´s body, touching the erogenous zones, kissing. These activities causing clash and are not pleasant for the victim. Sexual abused child is physically, mentally and emotional broken, ingrown, silent, scared, does not trust to anyone, reject common touches, escapes from the house, denies to stay at home alone or in the presence of offender, separates from others. There are visible symptoms on the child´s body such as bruise, swell, bleeding, injury in genital and rectal area, colicystitis, anoprocitis, pregnancy, enuresis. Mentally the child is apathetic, angry, anxious, scared, absent-minded, child refects it´s own body, stuttering, stereotyped movements, nightmares, aggression. There are also situations that the child does not have any visible symptomps and is adapted to the situation. Nevertheless the child is directly calling for help, but this is often ignored by adults.

Sexual abuse is against humanity and ethics and cannot be accepted. In an international and national law sexual abuse is a crime. This conduct is forbidden and is not accepted. The penalty for this offence reflects the severity of the proceeding. According to Slovak national law no. 300/2005 Z.z. Criminal Code §201 ods.1 „sexual abuse is committed by a person who makes an intercourse witch

a person under the age of fifteen , or who abuses a person otherwise , will be punished by inprisonment for three to ten years.

The offender of this crime is someone who realizes intercourse or other sexual activities with sexual safisfaction or without sexual satisfaction. There is a various penalty rare for this offence. If the crime is committed by more serious procedure or on the protected person, from a special theme, the penalty rare is inprisonment for seven to twelve years. Higher penalty of inprisonment from twelve to fifteen years is when the offender causes severe injury to health and if the offender causes dead by this crime the panlty of inprisonment is from fifteen to twenty years. It is insignificant if the child agrees with sexual abuse because the law prohibits any sexual contact with people under the age of fifteen.

The sign of violence is not involved in the merits of sexual abuse what makes it different from crimes rape and sexual violence and therefore sexual abuse can be comitted by the offender even if he is guided by child to commit this crime or he commits sexual abuse at the request of the child. Sexual abuse does not require to use a violence against the child.

According to §201 b Slovak Criminal Code sexual abuse is also committed by anyone, who abuses a child under the age of fifteen to induce sexual satisfaction by participating in sexual activities or sexual abuse, even though such a child may not directly participate or who alows him to abuse, will be punished with imprisonment for up to two years.

Sexual abuse can occur by the Internet. According to §201a of Slovak Criminal Code a crime is also contacting children by technology communications for the purpose of sexual abuse. This is a stratedy called „grooming", where the offender with false identity contact the child on social network to build a friendly relation with him , so that he can sexually abuse the child once or a long time.

Children under the age of eighteen and regardless of gender are also protected by criminal law against sexual abuse. These childre who, due to their age, health or otwerwise are entrusted to the people that take care for them or educate them. An offense is when those people misuse their authority, power and dependence against people under the age of eighteen or against entrusted and reliant people for sexual abuse or intercourse. According to §202 ods. 1 of Slovak Criminal Code in addition to being under the age of eighteen, two conditions are required.

The first is that the child must be entrusted to the person who has the right and obligation to take care of him. The second condition is that the child is reliant on person, that has the right and obligation to take care of him. Dependent

[6] WEISS, P. a kol.: *Sexuální zneužívaní dětí.* Praha: Grada Publishing, 2005, s. 28

[7] IVOR, J. a kol.: *Trestné právo hmotné. Osobitná časť.* Bratislava: Iura Edition, 2006, s. 115

person means that the child is reliant on the offender so his or her decisions are limited.[8]

The child can be sexually abused and sexually exploited at the same time. Sexual abuse and sexual exploitation overlap each other and thein common sign is vulnerability of the child. The different sign is the exhange- child is used for sexual activities to benefit or get some profit. In criminal terminology sexual exploitation does not have a well-defined definition, but refers to using children for prostitution and pornography. Specific forms of child exploitation for sexual purposes are already defined in international documents and national legislation . These forms are defined as criminal offenses. Sexual exploitation as a form of child prostitution means that the child is used for sexual activities for payment or other form of gift such as drugs, alcohol, cigarettes, food, accommodation. It does not mater if the payment or gift was given to a child or to the third party. Sexual exploitation as a form of child pornography means, that child is used to produce pornographic material, which displays a child , that is involved in actual or stimulated sexual conduct or which displays child´s genitals . Sexual explotation include also using a child for pornographic performances, that are designed for a child pornography consumer. Child pornography includes the production, distribution, use and possesion of pornographic material. The sexual exploitation is involvement children comercial sex markets' and/or participation in comercial sexual transactions'.[9] According to Karkoskova[10] sexual exploitation can be understood as a modern form of slavery, sex industry and sexual tourism. It is an organized activity regulated by rules of sexual market, where the greatest role is presented by offer, order and reward for the customer satisfaction. Sexual exploitation has commercial and violent character. Sexually exploited children suffer from extreme psysical, sexual and psychological violence. They are abuse by traders, pimps and also by customers. These forms of sexual exploitation are interconnected. Children are often kidnapped, sold, cheated or traded as goods and then they are forced to be a part of ilegal sex market. Children are presented as products on the sex market. Organized crime and sexual abuse is connected with sexual exploitation.

2. Conclusion

The idea that if children will be sufficiently informed , they will not be sexually abused and sexually exploited is wrong. Any child isn´t perfectly protected against these sexual crimes. It is important to realize that the sexual abuse and sexual exploitation issue requires an active and responsible attitudes adults. The biblical quotation clearly states: „Do justice and law; rescue the oppressed people

from the tyrant´s hand and do not bully the orphan...do not even criminally opress the innocent." We want to believe that all those people with competence and the possibility to improve the situation of childrent that are at risk of sexual abuse and sexual exploitation will find the best and effective way to fight against these sexual crimes.

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PHONOLOGICAL SKILLS AS PREDICTORS OF LITERACY

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Abstract: *The issue of acquiring early literacy in the process of primary education of children has been the focus of attention in both domestic and foreign professional and scientific literature for a long time. The development of cognitive processes and language skills is important for the process of teaching reading and writing. The development of phonological abilities also plays a significant role in the successful acquisition of reading and writing skills. Considering the growing number of children who have problems in reading and writing literacy, we consider developing these abilities to be crucial. The aim of the paper is to introduce the terminology of phonological abilities. Subsequently, we focus and clarify the importance of developing phonological abilities in relation to early literacy acquisition. Given that literacy is not exclusively linked to the ability to read and write, the paper also emphasizes other specific literacy models.*

Keywords: *phonological abilities, early literacy, early literacy acquisition, teaching early reading and writing*

1. Introduction

Nowadays, pedagogical theory and practice face the issue of early literacy, which, paradoxically, began to show stagnation, deterioration, at the time of increasing demands for its functionality. The solutions are directed towards reviewing the attitudes and goals of early teaching so far and are accompanied by a change in views on how the process of developing elementary literacy is taking place, how the child acquires its fundamentals, the role of the child's phonological abilities, and the opportunities for their development in teaching. In connection with this, here we focus on the theoretical analysis of phonological abilities, which should be developed for children of pre-school age. Within the theoretical framework, we focus on defining the basic and correlative concepts. Subsequently, we describe concrete literacy models that offer us to look at literacy in a broader context. Finaly, we point out the importance of phonological abilities in relation to the development of early literacy.

1.1 Theoretical background of the problem

Current literature considers phonological abilities and their development in preschool children as a continuum of the development of abilities of phonological awareness. Phonological awareness is defined by Smolík and Seidlová Málková [26] as the ability to recognize and manipulate partial sounds that form words at the level of linguistic units of various length. According to Melby-Lervag, Lyster, and Hulme [17], it is the awareness of the phonetic structure of the word, that means ability to analyse the word into phonemes, the composition of the word from the given phonemes and its identification as well as the manipulation of the phonemes.

The differentiation of these terms clarifies *the development of phonological abilities*, which proceeds from the awareness of larger phonological units to the division of words into individual phonemes. We know that from the beginning the child perceives the word as one whole and therefore the first phonological representations relate to the whole words. It is only during the pre-school age when the ability to divide words into smaller phonological units develops [12]. In the context of developing early literacy, it is considered important that the child acquires the ability to divide words into phonological units. In view of this, we consider it important to clarify the notion of phonemic hearing, which can be seen in close relation to phonological awareness.

Phonemic hearing is most commonly defined as an ability characterized by the perception of different qualities of individual sounds and their often small, slight differences. In the case of insufficiently developed phonemic hearing, similar sounds coincide. Incorrect perception results in improper imitation. For this reason, phonemic deficiencies are considered to be one of the root causes of speech disorders [13]. Máčajová, Grofčíková and Zajacová [15] recognize two forms of phonemic hearing - phonological awareness and phonemic awareness. It is important to emphasize that these are not identical terms, and the following definitions are given for their comparison. Phonological awareness, referred to as metallurgical ability [33], represents the conscious ability to recognize and manipulate larger phonological units than individual phonemes, that means with syllables and rhymes, while phonemic awareness refers to the smallest units, i.e. phonemes [27].

Phonological awareness in pre-school children, the essence of which is the acquisition of phonological abilities, can be seen in a very close connection with emerging literacy. Many authors agree with the definition of literacy, that it is a complex of inseparable, parallelly and mutually synergic developing language competences (reading, writing, speaking and listening), directly linked to thinking, cognition, and understanding [7]. The concept of literacy cannot be linked solely to the ability to read and write. In

view of this, the following part of the paper describes other specific literacy models.

1.2 Elementary literacy and its broader dimension

The term literacy can be understood in two levels. On a broader scale, Zápotočná [32] defines the literacy as what is not inherited, innate or given, but as what can be learned, acquired, mastered. A wider dimension of the term can be found in the definition of Hirschmann [8], that literacy is not only an ability to read and write, but rather an individual's ability to act and realize himself in a today's literate society in a given cultural context. There are several literacy models, such as the early or basic (basal, elementary) literacy, functional literacy, an literary, reading and comprehensive literacy.

Early (elementary, basal) literacy begins to develop at the time of entering primary school. At this stage, the child learns to master the reading and writing technique. Zápotočná [32] formulated principles that help to achieve the goals of elementary literacy as follows:

- variability and plurality of methods,
- consideration of individual variability and developmental continuity,
- consideration of individual variability and developmental continuity,
- motivation, meaningfulness and functionality.

It is of interest to professionals who deal with the decoding processes in a reader's mind. Early literacy training is one of the fundamental objectives of the school from the start of schooling for children and it begins to develop at the time of entering primary school. In this form of literacy, the emphasis in reading and writing, is on automating decoding, handling memorized information and reproducing it. On the other hand, however, little emphasis is placed on the analysis of the text's content and its deeper interpretation. Early literacy training is one of the primary aims of school since beginning of childhood school attendance [6].

Literary literacy also has its place in literacy models. It is a component of cultural literacy, which is closely linked to the literary word, the acquisition and versatile development of written language as an extremely important milestone in the process of child acculturation [31].

Another literacy model is *functional literacy*. Trubíniová et al. [30] defines it as the ability to use reading and writing beyond elementary literacy to meet one's own needs, acquire knowledge, self-education and self-development, both in the process of social interaction and communication, as well as in many other meaningful contexts [30]. Similarly, functional literacy is also defined by other authors as the ability to effectively use written material in life situations to meet the broad needs of a human, to spread knowledge and develop human potential [9]. Subsequently, we come to the concept of the total

literacy or to the concept of the total literacy model, which reflects the wider, so-called. a holistic understanding of literacy based on an interactive approach to developing reception and production communication skills [5]. In the total literacy model, the two additional skills, namely viewing and visually representing, are appended to the four originally mentioned communication skills (speaking, listening, reading, writing). The first of them - viewing, is related to receiving information from various, mostly non-contextual sources (brochures, advertisements, teletext, internet), which are obviously part of the so-called modern reading. The second - visually representing is related to the visual representation of ideas and experiences that are now associated with the multimedia use of modern technology [5].

Based on the individual characteristics of literacy models, we can talk about different periods of its evolution and the development of basic communication skills. We agree that reading literacy encompasses not only the ability to read, but also the ability to work with text, communicate through written speech, retrieve and process text information, and so on [24]. Mullis, Martin, Kennedy, Trong and Sainsbury [22] report that reading literacy is the ability to understand and actively use written language forms that society requires or that are of value to the individual. In addition to understanding reading as a tool for achieving goals, the above definitions also emphasize the active and initiative of the reader in understanding and using information.

We know that the main information channels in school and everyday life are reading and writing addition to spoken language. Reading is a person's ability to receive information and knowledge and it is a path to education. Matějček [16] understands reading as a higher mental process, a "superstructure" of the spoken language system, in which many cognitive abilities are involved to varying degrees. Their interplay is a prerequisite for quality reading, as reading is a coherent process for which motivation is also essential. It follows from the above that reading is a very complex and multifactorial process that involves consciously focusing on the text we want to decipher, transferring graphic characters to the brain, decoding them, assembling them into words, storing and holding them in the working memory, confronting the information from long-term memory, processing in consecutive order to understand the read text. In this way we naturally get to definition of a specific human ability, speech. Speech is the conscious use of language as a complex system of signs and symbols. In the case of speech and the development of elementary literacy, Sičáková [25] defines speech as a concrete implementation of an abstract language system in a particular speech, or the individual use of language as a system in a particular situation.

The speech is open to direct perception, resulting in a particular text (spoken or written). Another definition says that language connects the term with the sound (spoken and heard language) and with the image (written and read

language), denotes something, lends it meaning and is generally shared by common agreement [Nakonečný, in 29]. One of the strongest factors predicting later reading difficulties is the lack of working memory. Memory is divided into short, long and working memory. We know that just a working memory keeps the information for a short time when further information is being processed. A. D. Baddeley [in 28] explains that parts of the information are briefly retained in memory tracks and then rapidly disintegrating and therefore he proposed a multi-factor memory model. He clarifies that a central executive interacts with the two support stores that store different kinds of information. One is a phonological loop that processes language information, and the other is a visual-spatial sketchpad that is responsible for short storage of visual-spatial information [28]. By analyzing individual terms, we can conclude that phonological processes are part of cognitive processes. In the next section of the paper, we will clarify that the components of phonological and cognitive processes are not isolated and there is a correlation between them.

2 The role of phonological abilities in relation to early literacy acquisition

In the context of increasing knowledge about the importance of phonological abilities in reading, doubts about the fact that we read primarily through sight, began to grow in the early 1970s. Siegel [in 20] in her work presents five basic mechanisms that she described as basic cognitive processes. These are: phonological processes, syntactic processes, working memory, semantic and orthographic processes. The phonological processes are part of cognitive processes, as described above. In terms of phonological processes, and hence, of cognitive processes, phonological awareness is part of them. This overlaps with other phonological components. It is, for example, naming which involves access to phonological code in memory, as well as a link to phonological work memory. Thus, individual components of phonological processes are not isolated. On the contrary, there is a mutual relation between them within development [2].

There are the three periods in phonological awareness as follows. In the first period, the word is perceived as a semantic whole, because the child is not yet able to separate the form of the word from its content, so it is dominated by the semantic aspect of the word at the expense of formal one [Cataldo, Ellis, in 19].

In the second period, non-analytical, implicit awareness of the word's sound structure is already in progress, but it is still limited. This type of awareness is considered to be a natural lexical ability appearing within normal language development [4].

It follows from the above that conscious manipulation of sounds in words occurs at the third period of development. According to Carol and Waring [4], we can talk about explicit awareness, which builds on the basis of implicit

awareness, relates to the initiation of formal teaching and the acquisition of skills by reading and writing.

This development pattern is also supported by the findings of Anthony, Lonigan, Driscoll, Phillips, Burgess [1] who examined 947 children aged 2-5. The children gradually entered various phonological examinations for detection and conscious manipulation (synthesis and elision) at four levels of linguistic difficulty. The children first mastered the level of words, followed by the level of syllables, followed by the level of onset and syllabic basis, and finally the phoneme level. It is important to note that this transition is more of a continuum than separate stages, and that individual skills can develop in parallel. Findings and conclusions from research with English-speaking children cannot be automatically adopted and applied in our conditions because English is one of the non-transparent languages at the other end of the orthographic spectrum as Slovak. According to the results of a Slovak study carried out by Zubáková and Mikulajová [21], [35], 209 Slovak-speaking children aged 5-7 years showed that phonological awareness is already developing in pre-school age in Slovak children. On a statistically significant level, the isolation of the last phoneme has been shown to be cognitively more demanding than the isolation of the first phoneme. The study confirms that phoneme isolation capability is beginning to develop in pre-school age and, thanks to the use of analytical-synthetic reading instruction, culminates in the first year [21], [35].

The research importance of phonemic awareness for reading and writing in early stages of literacy acquisition has been confirmed in various languages that use phonetic writing: English, Spanish, French, Czech and Slovak [3], as well as Finnish, Dutch, Hungarian, Portuguese, French [21], [34]. Based on the research in these countries, it is confirmed that underdeveloped phonological skills are one of the main causes of developmental reading and writing disorders. Likewise, Pokorná [23] states that the lack of phonological processing, along with short-term memory disorders, is considered to be one of the most common causes of dyslexic complaints. Other authors also point out that the inadequate development of the phonetic-phonological level of speech is reflected directly in reading disorders, as pointed out by Klenková, Bočková, Bytešníková [10] or Kucharská [11]. However, in the context of this, one can also consider the impact of these disorders on the writing process, which the child acquires in parallel with the reading process, and may even become a risk factor for understanding the text, which presents other serious problems in school conditions.

3. Conclusions

The development of reading and writing literacy, which aims to develop reading and writing skills, is a necessary means and tool of communication as well as of the further education of the individual [14]. It follows that phonological skills and their acquisition before entering primary education are a key area not only for acquiring reading and writing skills, but also for the further

development and education of the child. Phonological processes involve a wide range of different abilities that are related to the processing of the acoustic structure of the language and thus are very important in learning and in the ability to read [18]. The above studies confirm that phonological processes, and in particular functions such as phonological analysis and synthesis, manipulation of syllables and phonemes, are a supportive cognitive process in relation to early literacy. Let us say that the targeted development of pre-school phonological abilities provides the child with a smoother transition to the subsequent acquisition of reading and writing skills. For this reason, we consider it important to pay attention to the issue of phonological development already at pre-primary level.

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KEY ISSUES IN CURRICULUM OF CZECH INSTITUTIONAL SCHOOL EDUCATION

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Abstract: *The paper presents with its content the existing deficiencies in the current concept of the curriculum of school education and its implementation in the institutional conditions of the Czech Republic. School education is implemented in accordance with state-level curriculum documents. Schools as educational institutions in the development of school educational programmes must reflect this level. Their form can be continuously updated, always reflecting on the characteristics of the school, the objects and the subjects of the institution in which the school education takes place. Teachers provide cultural and social transmissions through the mediation of contents and their implementation in educational processes. By applying the curriculum, they form opinions, attitudes, values, and participate in creating relationships of the learning objects (children and pupils) to themselves, to people, to subjects, and to various phenomena. The primary objectives of this message are to present a subjective and subjectivized reflection of the author on the problem solved in the context of the Czech Republic.*

Keywords: *curriculum, teaching, school, ediction, social aspects*

1. Introduction

Education with all possible forms of processes and subcomponents, as a phenomenon of a life-long nature, carried out in different modalities, in different contexts and environments, always with the participation of an individual or team, and heterogeneously diversified educational goals, must, in relation to its object (a child, a pupil, a student, generally a person with regard to the context of lifelong socialization) aim at what it is supposed to aim at. In its framework it must include curricular content, definition of key parameters and determining the extent and nature of educational schemes.They must mutually intertwine and complement each other because through them the development of one's personality takes place. They appear in one´s various social environments and also reflect all of one´s life contexts. In upbringing and education which are implemented in institutional schemes there is a latent socially expected requirement for certain mechanisms by which those who are subject to the institutional perspective are restricted. It confirms accepted rules and general social trends and approaches. In essence, this is a norm. It does not have to be accepted by all, although all assume an attitude of conformity. Institutionalized education can, therefore, be said to be normalized in the given territory and in the given historical time**.** This is also the case in the context of the Czech legal code. Its outputs can then legitimately be conceived as verifiable or more precisely achievable. In field educational practice, the norm includes both the Education Act (561/2004 Sb., as amended) and the relevant implementing regulations, as well as their superior legal, or other related documents.

2. The System of Institutional School Education

Institutional education in the conditions of the Czech Republic is adjusted by legislative regulations, adapted in the European area by orders, conventions, regulations of various nature, at the same time adjusted by strategies, concepts, action plans, etc. Obligatory institutional schooling refers to pre-school age children in the course of one school year before the start of primary education (ISCED[1] 0) and pupils, usually between the ages of 6 and 15, participating in primary education. Primary education of nine school years is carried out at a primary school, the structure of which is differentiated into two levels: the first level includes 1st - 5th year of elementary school, which is level 1 (ISCED 1) according to the International Classification of Education. It follows the already adopted outputs obtained by the implementation of the curriculum document The *Framework Educational Programme for Preschool Education* (2018), which, as given by the amendment to the Education Act, forms part of the one-year statutory compulsory pre-school preparation under institutional conditions. Curriculum content of ISCED 1 focuses primarily on reading and mathematical literacy, on developing skills, learning findings and knowledge, cultivating opinions and attitudes, acquiring such educational schemes which will enable objects of education to create, develop and apply individual metacognitive concepts in the learning processes. The second stage of elementary school consists of the 6th - 9th year (ISCED 2) and its concept tends to acquire the defined key competences listed in *the Framework Educational Programme for Basic Education* (2017). The previously applied *Appendix to the Framework Educational Programme for Basic Education adjusting education of pupils with mild mental disabilities* (RVP ZV - LMP) for school education of pupils with a diagnosed mild degree of mental disability was cancelled by the Ministry of Education, Youth and Sports. At present, their school education according to the valid legislation of the

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[1] international classifications of education (see, for example the NÚV, online)

Education Act and the implementing regulations is curricularly based on an individual educational plan. In the case of completing primary education in an elementary school designated for pupils with moderate and severe mental disabilities and pupils with multiple disabilities or pupils with autism (ISCED 2), the law takes into account its extended duration (10 school years). And in this case it is differentiated into two stages, the first consisting of 1st - 6th year of Special Elementary School, the second represented by its 7th - 10th year. If the education in the Special Elementary School is preceded by pre-school training, it is implemented in the course of three school years, that is at the training stage of the Special Elementary School. School education in the SES is carried out according to the document called *Framework Educational Programme for the field of Special Elementary Schools.*Education at ISCED 2 level, in accordance with the section of the Education Act, can also be acquired by completing the compulsory school attendance at a multi-year grammar school or by completing a conservatoire with a corresponding range of study. A grammar school background is, however, generally perceived by the pedagogical and parental public as a systemized and effective training to achieve general secondary education (ISCED 3) and effective training for higher education (ISCED 6-8)[2].

3. Profession of Teachers

The profession of teaching staff in the Czech Republic is regulated by the European Union regulations (2005/36/ES) and comes under the Ministry of Education Department (18/2004 Sb., as amended). A regulated profession represents certain requirements without which the profession can not be fulfilled. The Ministry of Education, Youth and Sports (MŠMT) has on its website the following list of pedagogical professions falling under the regulation of the regulated profession: *teacher assistant, leisure time teacher, special needs teacher, coach, second stage elementary school teacher, language school teacher with accreditation for state language examinations, nursery school teacher, religion teacher, vocational training teacher at social care facility, first stage elementary school teacher, secondary school teacher, teacher of artistic vocational subjects of elementary art school, teacher of secondary technical school and conservatoire, teacher of tertiary technical school and educator. (MŠMT, online)*

Qualification requirements for the performance of the given profession in the Czech legal code are defined by

Act 563/2004 Sb., on teaching staff, as amended. Regulated professions vary across the countries of the European Union. In some cases, it is necessary to apply to the competent authorities for permission to pursue the profession or to start certain administrative procedures. If the profession in question is not listed in the database of the regulated professions of the individual countries of the European Union, it means that the member of staff can pursue his/her profession under the same conditions as nationals of that country. Otherwise, he or she must apply for recognition of professional qualifications to be able to pursue his/her job. The Ministry of Education, following the above mentioned and in accordance with the Decree of the Higher Education Act (111/1998 Sb.), as subsequently amended, in 2017 published under the title *Framework Requirements for Study Programmes, whose completing means acquiring professional qualifications for the performance of regulated professions of teaching staff* (Čj. MŠMT-21271/2017-5) a methodical material thanks to which it is possible to assess the structure of the curriculum of accreditation files of higher education study programmes aimed at the performance of the teaching profession. By this step, the Czech Republic seems to intervene in a certain way because it reflects the existing European social phenomenon which needs to be addressed. In the period 2014-2015, we conducted nationwide sociological research focused on the analysis of the readiness of primary school teachers within the 13 regions of the Czech Republic (N 2005). We investigated the subjectively perceived readiness of the teachers. The method in our case was questioning and the technique was a questionnaire of our own design (Kaleja, M. 2015) containing necessary elements. In the text, we interpret them through defined conclusions, focusing on one research question: *What is the familiarity of primary school teachers with the key issues affecting the concept of social exclusion and education? Almost 92% of teachers consider the concepts of social disadvantage and social exclusion to be synonymous, although this is not the case. Almost 84% of teachers believe that only Romanies are living in socially excluded localities in the Czech Republic, although this is not the case according to available sociological analyses. Almost 67% of teachers believe that socially disadvantaged pupils should be educated according to the curriculum for pupils with mental disabilities. Almost 96% of teachers believe that socially disadvantaged pupils are mentally disabled.* Real field school practice in education shows that teaching staff are not sufficiently prepared to educate all children, pupils or students in the concept of joint education.

4. The Curriculum in School Education

With regard to the topic of our paper on the issue of the curriculum, its content and the way it is implemented, including the assumptions or factors which limit its own implementation, or more precisely, which in their framework in any way determine the content, extent or mode of educational transmission, including the form of the course itself and the outputs of the school educational processes, we want to point out another dimension of the

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[2] The first stage of higher education (ISCED 6) in our school system is a Bachelor's degree, usually running from three to four academic years. A Graduate Master's degree can usually be completed during two academic years. Master's studies, whether two-year structured, unstructured five-year or six-year (in the case of general medicine studies), are included in the same seventh level of education (ISCED7). The third level of higher education is the highest formal and institutionalized education. It can be obtained by passing a doctoral study (ISCED 8) and by defense of a dissertation, on the basis of which the graduate is awarded a doctorate degree.

problem. It is also not necessary to proclaim that the school should prepare children and pupils for real life, teach them acts, skills, instil the right principles of human existence into them which are expected from them. However, what is necessary to critically objectively open and communicate to the pedagogical public, to those representatives of the appropriate executive level who are responsible for the processes associated with possible changes throughout the school system is that our schooling system in terms of content and its implementation brings socially delayed, socially undesirable, intolerant, xenophobic, discriminatory and negativistically tuned tendencies in the development of our society, which is framed territorially, in school terms in a legally binding way and curricularly in a guaranteed way[3]. The content of our cognition, encountering, getting acquainted, developing, acquiring, etc. in the processes of school education do not reflect the current state of Czech society, its structure, its nature and its properties by which it is characterized. They ignore the real, obvious, provable, declared complete context of the Czech Republic in all its possible aspects. The context of the Czech people, the Czech nation, the Czechs, the inhabitants of the Czech Republic and the citizens of the individual cities in the Czech Republic is not sufficiently clarified in the textbooks and in the publications which the schools rely on. And teaching staff with this erroneous normalization given by the text of this subject, which may or may not serve as a tool, aid, support or means of school education, not as its core, dogma, is governed uncritically. They provide a transmission which, with taking into account the paradigms of upbringing and education, is not legitimate, it is not correct, does not bring what education should bring. The following verifiable questions are formulated for this call: *1) Why in textbooks intended for pre-school and elementary education as well as in textbooks and publications at higher stages of institutional education do the texts not include people characterized by a different distinction which would not be presented and interpreted as unnatural , extremely rare, alien, belonging to the whole, to which everyone else, for the well-known reasons, does not acknowledge?; 2) Which textbooks, teaching texts in school education really reflect the structure of Czech society and contain such image, quantity, quality by which the Czech Republic is characterized in this respect?*

The Constitution of the Czech Republic (1/1993 Sb.) states that the republic consists of the people and the people are characterized by different nationalities. All of them are therefore, if they have citizenship of the Czech Republic, legitimate citizens, Czechs. According to the Czech Statistical Office in 2018 (online) there were 10 637 794 inhabitants in the Czech Republic, of which 524 000 were members of other countries. And these are not citizens of the Czech Republic. As reported by the appropriate authority, almost 300,000 foreigners residing in the Czech Republic were not even from the European Union. To clarify the term foreigner, a foreigner, according to the

wording of Act No. 186/2013 Sb., as subsequently amended, is a natural person who does not have the citizenship of the Czech Republic. And citizenship in its intentions can be obtained as follows: *by birth, determination of fatherhood, adoption, finding in the territory of the Czech Republic,by granting, declaring, or, in connection with committing to an institutional, foster or other form of substitute care.*

Citizens of the Czech Republic at regular censuses of people, houses and flats have the right to freely choose their own nationality, which is guaranteed by the Charter of Fundamental Rights and Freedoms (2/1993 Sb.) as part of the constitutional order of the Czech Republic (1/1993 Sb.). Any influence or pressure to de-nationalization is forbidden.

However, school practice, through outdated contents of curricular nature, teaches children and pupils, shapes their opinions and attitudes, strengthens or determines their perceptual and cognitive schemes, in many cases encourages the internalization of constructive metacognitive entities, attributes and strategies, which diverge from true educational goals. We have the following comments on this call (Kaleja, M. 2012): *Some Romanies are Czechs. Czechs can also be Romanies. It is not right to introduce the connection between Czechs and Romanies or Romanies and Czechs. However, if necessary or relevant, then it is right to mention ethnic Czechs and ethnic Romanies.* The Czech Republic is a democratic rule of law based on the so-called civil principle, the bearer of statehood is not a nation, but the people formed by different groups of people who are citizens of the Czech state. A great number of Romanies living in the Czech Republic have the citizenship of the Czech Republic, they are legitimate Czechs. People living on the territory of the Czech Republic, characterized by a different ethnicity from the majority of the population, may be/are citizens of the Czech Republic. However, the textbooks in the school context present them as foreigners, as individuals or groups of persons who have come to the Czech Republic with different intentions. What is still alarming is the fact that not only teaching staff in the field but also those who prepare future educators in the undergraduate training present or hold such views in a very similar fashion. If learning about any otherness with its presented features or characteristics is implemented into the curriculum, then this phenomenon is constructed in the educational transmission as generalized, prototypical, or more precisely archetypal, thus enhancing the categorization of people with this key.

However, it is believed that the views and attitudes of teaching staff are professionally and in a cultivated way constant, this fact will not be negatively projected in the processes of their work. The category of social exclusion itself includes many interpretations, and other, sometimes very close, identical, or etiologically or causally related attributes belong to its framework. Behavioral and other attributed manifestations by the general population and not

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[3] MEYS through RVP

excepting the pedagogical public, towards the people with described or other difference, are not, as shown by the currently presented research, always welcoming. (Kaleja, M. 2015) Special needs education research studies and also social-pedagogically oriented research studies (Preissová Krejčí, A., Cichá, M. and Gulová, L. 2012), including publicly available sociological analyses (GAC 2015), confirm how the pedagogical public perceives, manages and constructs processes in which the intact meet the children and pupils from an environment different in any way. And this does not have to be a pupil with special educational needs. Such a pupil is defined by the Education Act in § 16, article 1 and describes him/her as a pupil who needs support measures to fulfill his or her educational possibilities or to exercise or use his or her rights on an equal basis with others.

5. Conclusion

Education in the school environment is implemented through approved state and school level documents. These often do not reflect the current background of the Czech Republic and the teaching staff who follow them fully, implement them in the processes of school education, form opinions, attitudes, values and participate in creating relations of children and pupils to people, to objects and to phenomena. The context of the Czech people, the Czech nation, the Czechs, the inhabitants of the Czech Republic and the citizens of the individual cities in the Czech Republic is not sufficiently elucidated in the textbooks and in the publications underpinning the schools. And teaching staff uncritically follow this erroneous normalization given by the text of this subject, which may or may not serve as a tool, aid, support or means of school education, not as its core, dogma. They provide an educational transmission which is not correct with respect to the paradigms of education and upbringing. School education should lead to cultivation of the personality, the development of children and the pupil. Discrimination, xenophobia, intolerance, negativism has no place within its framework. The teacher is a solid, constant, balanced personality who does not apply the principles of simple generalization, archepypality, which could cause harm or detriment to children, pupils or their close family. The teacher is aware of his/her reserves in terms of readiness to practise his/her profession. He/she constantly works, develops his skills and cultivates his/her personality. The participants of the relevant subjects, the mechanisms of changes concerning the creation and updating of the conception of the curricular content of the school education and its implementation must remember a constant objectively critical, time and territorial socio-demographic aspect which are important for the development of the society.

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TIME PERSPECTIVE AND BONDING

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Abstract: *An extensive research has recently focused on behavioral correlates of time perspective. However, none of the studies have explored the relationship between time perspective and the quality of mother-infant bonding. Therefore, we aimed to investigate whether the concept of time perspective, as measured by the Zimbardo time perspective Inventory (Zimbardo, Boyd, 1999), relates in any way to the quality of bonding, measured by the Postpartum Bonding Questionnaire by Brockington et al. (2001). The current research was quantitative, exploratory and correlational. Our sample consisted of 32 married women living in the State of Qatar with a baby less than 90-days-old. Results showed that Negative Bonding correlated positively and highly with Present Fatalistic factor and moderately with Present Hedonistic factor. Moreover Present Fatalistic factor is a reliable predictor of Negative bonding. Results are discussed in terms of the definition of both scales, their relationships as well as their implications for further research.*

Keywords: *bonding, time perspective, mother, infant*

1. Introduction

Our psychological sense of time determines our actions, feelings, decisions and behaviour. Zimbardo and Boyd [1] discovered that individual perception of time influences our behaviour and decision making. Time perspective is defined as a cognitive tendency of individuals to be timely oriented toward the past, the present or the future. Perception of time is a dynamic process, yet individuals develop a preference for one of the time frames [2]. This preference is reflected in individual time perspective profile. Zimbardo and Boyd [1, 2] distinguished five time perspective profiles: Past Positive, Past Negative, Present Hedonistic, Present Fatalistic and Future.

Past positive-oriented people focus on the "good old days". This factor correlated significantly and negatively with aggression, depression and anxiety, positive correlation was found with self-esteem. Past Positive factor did not correlate significantly with novelty seeking, sensation seeking, and preference for consistency [1]. Past negative-oriented people tend to focus on what went wrong in the past. Their negative attitudes come from current negative reconstruction of previous begin events. Past negative factor significantly and negatively correlated with satisfaction with life, subjective happiness, purpose in life, generalized self-efficacy, and optimism [3]. Past-Negative scale was significantly associated with depression, anxiety, self-reported unhappiness and low self-esteem and aggression [1]. Present hedonistic-oriented people live in the moment. Behaviour of these people has been associated with a variety of hedonistic and impulsive correlates. Their goals in life are to seek pleasure, sensation, new and unique experiences. Present hedonistic orientations were significantly correlated with ego undercontrol, novelty seeking, sensation seeking, and aggression and was significantly and negatively correlated with preference for consistency and a measure of the consideration of future consequences [1]. Present

fatalistic-oriented people feel, that their destiny and future is set. They believe they have little or no control over what happens to them. This attitude comes hand in hand with lack of personal efficacy, lack of pleasure seeking and apathy. For some people, this perspective is related with their religious beliefs, for others it comes from a realistic assessment of their poverty or living with extreme hardships [2]. Future-oriented people always think ahead. They plan for the future and trust in their decisions, they are goal setters and successful achievers. They carefully weight their desires for immediate gratification against future costs. They can be described as extremely conscientious, consistent and concerned about future consequences. At work they meet deadlines on, they are top performers [2]. Future factor is negatively correlated with novelty and sensation seeking, anxiety and depression [1].

Time perspective acts as a cognitive frame that mediates our situational responses and behavioral patterns, influences our judgments, decisions and action. It is considered as a relatively stable and independent characteristic, through which personal and social experiences are assigned to different time perspectives, giving order, coherence and meaning to life events [1]. An extensive research has discovered that individual time perspective correlates with several psychological concepts and behavioral patterns. However, none of the studies have explored the relationship between time perspective and the quality of mother-infant bonding yet.

Mother-infant bonding is a type of emotional relationship as defined by Ainsworth [4] that is characterized as unique, specific, long-lasting. It is developed after birth of newborn and supported by hormonal functions of mother [5, 6]. According to Greškovičová [7] bonding represents an emotional bond, which is a result of a specific parental care system comprising of two aspects: external and

internal. External aspect is represented by behavioral schemas (e.g. holding, carrying, rocking, feeding). This behaviour is visible and, therefore, easily subject to observation. On the other hand, internal aspect of bonding is characterized by an affective compound (emotions of a caregiver towards a child e.g. love, joy, hostility) and cognitive compound (attitudes of a caregiver towards a child and mental representations of these interactions). Internal aspect is broadly studied. For instance, Brockington and his colleagues [8] identified four factors in bonding: Impaired Bonding, Rejection and Anger, Anxiety about Care, and Risk of Abuse. Other researches also define bonding as emotions of parents [4, 9], parents´ behaviour and interest in infants [4], mental representations of the relationship [6]. Internal bonding is usually measured by self-reported instruments. Mother's bonding for an infant or its absence, strongly influences the development and future psychological, mental and social constitution of her child [10].

Considering the absence of empirical studies on the potential association between individual time perspective and bonding, our study aimed to explore this possibility and, therefore, following research questions were formulated:

RQ1: Is there any relationship between bonding and time perspective in our sample?
RQ2: Can time perspective predict bonding?

2. Methods

2.1 Research sample and data collection
Current research is a quantitative non-experimental exploratory study designed to gather comprehensive data on a non-clinical population sample of mothers (N= 32; age M = 32.56 and SD = 3.546) living in the State of Qatar, within the first three months postpartum with children (N= 32; modus = 12 weeks, min. age = 2 weeks, max. age = 17 weeks) born in hospital. Our sample was heterogeneous, as an expatriate community was primarily targeted. Level of English was adequate for all participants. 100 per cent of participants were married. 62.5 per cent of participants gave natural birth and 37.5 delivered through a C-section. 87.5 per cent showed no postpartum complications. The data were collected from January 28, 2018 till March 12, 2018 using the Google Forms online tool.

2.2 Methods of data collection

2.2.1 Zimbardo Time Perspective Inventory
Zimbardo Time Perspective Inventory [1] is widely used and so far, the most complex instrument for evaluating individual time perspective. It is a self-report instrument, consisting of 56 simple statements divided into 5 dimensions. Past Negative dimension (10 items): reflects a generally negative, aversive view of the past. Present Hedonistic dimension (15 items) reflects a hedonistic, enjoyment and pleasure centred risk-taking attitude toward

time and life. Future dimension (13 items) reflects a general orientation toward the achievement of Future goals. Past Positive dimension (9 items) reflects a warm, sentimental attitude toward the past. Present Fatalistic dimension (9 items) reveals hopeless attitude toward the future and life, and a sense that the Future is predestined [11]. Responses are appraised on the 5-point Likert scale, summary indices are computed for each dimension. Higher score in dimensions indicates increased characteristic.

The internal consistency of the five factors ranged from α= .74 to α= .82 [1]. In our study, the internal consistency of the five factors was adequate (ranged from α= .692 to α= .871).

2.2.2 Postpartum Bonding Questionnaire
The Postpartum Bonding Questionnaire is designed as a self-report screening instrument that aims to identify problems in the mother-baby relationship [8]. It was originally used in clinical samples [8], however, today it is widely used in non-clinical samples for research as well [12]. It consists of 25-items divided into four factors. Impaired Bonding (12 items) is a general factor and identifies "*some kind of problem in the mother-infant relationship*" [13, p. 237], Rejection and Anger (7 items) reveals severe bonding disorders, Anxiety about care (4 items) reveals anxiety about caring for the baby and Risk of Abuse (2 items) identities dangerous mothers that could hurt a baby [13]. Since the instrument measures "negative" characteristics of the relationship, one of us [14] named summary index Negative Bonding. Each statement is followed by six alternative responses ranging from 'always' to 'never'. The scores are summated for each factor/Negative Bonding, a high score indicating pathology or disturbance in the mother-infant bond.

In the original study the reliability coefficients ranged from α= .74 to α= .95 [8]. In our study, the internal consistency of the Negative Bonding (α= .917) and the factors were acceptable (Impaired Bonding: α= .834, Rejection and Anger: α= .901). On the other hand, Anxiety about care (α= .423) and Risk of Abuse (α= - .67) were excluded from further analysis.

3. Results
3.1 Bonding
Distributions of Impaired Bonding, Rejection and Anger and Negative Bonding were negatively skewed. We concluded that the variables are non-Gaussian distributed. Basic descriptive statistics is displayed in table 1. Strong positive intercorrelations between dimensions and between dimensions and Negative Bonding were found (rs> .50).

3.2 Time perspective
All the dimensions but Past Positive were approximately symmetrically distributed. Basic descriptive statistics is displayed in table 2. Strong positive intercorrelation between Past Negative and Present Fatalistic was found (r_s = .65), moderate intercorrelation was between Present Hedonistic and Present Fatalistic (r_s = .305). Strongest

negative association was found between Past Positive and Past Negative (r_s= -.45) representing moderate correlational relationship.

Table 1 Descriptive statistics of the bonding, source: authors

N= 32	Impaired Bonding	Rejection and Anger	Negative Bonding
Mean	10.75	4.13	20.28
Median	9.00	2.50	16.00
Mode	8	0	14
Std. Deviation	7.384	5.690	15.217
Variance	54.516	32.371	231.564
Skewness	1.508	2.756	1.912
Kurtosis	3.467	9.550	5.575
Minimum	0	0	0
Maximum	36	28	78

Table 2 Descriptive statistics of the time perspective, source: authors

N= 32	Past Negative	Present Hedonistic	Future	Past Positive	Present Fatalistic
Mean	2.7469	3.1958	3.5841	3.4931	2.7569
Median	2.6000	3.2000	3.6154	3.5556	2.7778
Mode	2.20	3.40	4.08	3.56	2.78
Std. Deviation	.83240	.40248	.44118	.58246	.59698
Variance	.693	.162	.195	.339	.356
Skewness	.216	-.291	-.243	-.611	.133
Kurtosis	-.478	.540	-.589	.256	-.413
Minimum	1.20	2.13	2.62	1.89	1.67
Maximum	4.60	4.00	4.38	4.33	4.11

3.3 Relationship between bonding and time perspective

Assumptions of linearity between bonding and time perspective dimensions were checked with scatterplots of the data. The assumption of linearity was met in all cases.

We answered the first research question (RQ1: Is there any relationship between bonding and time perspective in our sample?) with the help of Spearman's correlational coefficient. The results are displayed in table 3. There were negative relationships between bonding and Future/ Past Positive, though weak ones. All the other correlations were positive and the strongest correlation was found between Present Fatalistic and Impaired Bonding (r_s = .589) and between Present Fatalistic and Negative Bonding (r_s = .524).

In order to answer the second research question (RQ2: Can time perspective predict bonding?), we calculated a stepwise multiple regression to predict Negative Bonding. Results of multiple linear regression show that only Present Fatalistic is a reliable predictor of Negative Bonding ($F(1.29)$= 8.814; p= .006) with adjusted R^2= .270). Present Fatalistic was thus found a significant predictor of Negative Bonding ($β$ = .483 p= .006). By adding another time perspective factors (predictors) the explanation strength and statistical significance decreases.

Table3 Correlation matrix between bonding and time perspective, source: authors

N= 32	Past Negative	Present Hedonistic	Future	Past Positive	Present Fatalistic
Impaired bonding	0.292	0.441	-0.16	-0.175	0.589
Rejection and Anger	0.211	0.042	-0.125	-0.266	0.32
Negative Bonding	0.285	0.381	-0.202	-0.207	0.524
X^2	0.081	0.145	0.040	0.042	0.274

4. Discussion

An extensive research has recently focused on behavioral correlates of time perspective. It has been discovered that individual time perspective correlates with several psychological concepts and behavioral patterns, however, none of the studies have explored the relationship between time perspective and the quality of mother-infant bonding yet. Our aim was, therefore, to explore relationship between time perspective measured by the Zimbardo Time perspective Inventory [1] and bonding measured by the Postpartum Bonding Questionnaire [8]. Our research was quantitative, exploratory and correlational. Our sample consisted of 32 married women living in the State of Qatar with a baby less than 90-days-old.

Our first research question was whether there is any relationship between bonding and time perspective (RQ1). To determine this possible relationship, we conducted correlational analysis using Spearman's correlational coefficient. Results showed that there are weak negative relationships between Negative Bonding / bonding dimensions and Future / Past Positive which is in line with Zimbardo and Boyd´s study [1] where both Future and Past Positive correlated negatively with aggression (Past Positive), depression and anxiety. In our research both these factors negatively weakly correlated with Negative Bonding, Impaired Bonding and Rejection and Anger.

Other three time perspectives were in positive relationship with Negative bonding. Past Negative, that reflects a pessimistic, negative, or aversive attitude toward the past, negatively correlated with satisfaction with life, subjective happiness, purpose in life, generalized self-efficacy, and optimism [1], which is in line with our results. In our study, the more past oriented mothers are, the more they perceive Negative Bonding and Impaired Bonding. The relationship was weak/medium.

An interesting result is a medium positive correlation of Present Hedonistic with Impaired Bonding and Negative Bonding. Present Hedonistic reflects a hedonistic attitude toward time and life. It was positively associated with scales measuring ego undercontrol, novelty and sensation seeking [1]. When a mother focuses on current experience and wants to enjoy herself, she may feel negative toward

her infant. Taking care of the infant could take her life joy away due to multiple daily hassles she undergoes.

Last, but not least, there a positive relationship between Present Fatalistic and bonding. The strongest relationship was found between Present Fatalistic and Impaired Bonding with is in accordance with other studies. Present fatalistic-oriented people feel that their destiny and future is set. They believe they have little or no control over what happens to them. This attitude comes hand in hand with lack of personal efficacy, lack of pleasure seeking and apathy. Present Fatalistic correlated strongly and positively with aggression, anxiety and depression and negatively with consideration of future consequences in the time perspective validation study [1]. Moreover, our results show that Present Fatalistic factor is a reliable predictor of Negative Bonding and can explain 27% of Negative Bonding (RQ2).

While presenting and interpreting these results, we must take into consideration that bonding is a complex, two directional process, influenced by many diverse factors. For example, maternal parenting stress may be related to overall Negative Bonding due to postpartum emotional stress and negative affection towards the baby. Breastfeeding, obstetric history, socio-economic status, quality of relationship with the partner, postpartum depression, low self-esteem, neuroticism, temperament and behavior of the baby and others.

This study has several limitations: purposeful sampling, low return rate of the questionnaires, self-reported questionnaires, strong social desirability bias. Even though, in our research two of five time perspective profiles clearly proved to have an association with bonding, namely Present Hedonistic and Present Fatalistic factors. The latter one also showed predictive validity for bonding. The possible interconnection between these two concepts (time perspective and bonding) was examined for the very first time in our study and may inspire further research on this topic.

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RESILIENCE AND BONDING

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Abstract: Resilience can be defined as a dynamic personality trait which helps people to cope with difficulties and to thrive in life in spite of their occurance. We understand the term bonding as an emotional bond of a parent towards his/her infant. Our research was quantitative, non-experimental and exploratory. We used the Resilience Scale (Wagnild & Young, 1993)to measure resilience and the Postpartum Bonding Questionnaire (Brockington et al. 2001) to estimate the level of negative boding , in mothers (N = 91) of newborns (less than 90-days-old). We explore relationships of these two concepts and discovered a medium negative correlation between resilience and negative bonding. The higher the resilience of the individual, the lower the risk of negative bonding. Interestingly, item meaning from Resilience Scale had strongest relationship with Negative bonding suggesting that the more mother feels that her life has meaning, the less negative bonding she feels toward the infant.

Keywords: bonding, resilience, mother, infant

1. Introduction

Resilience has been an important subject of interest for recent decades. Approaches to resilience may differ given authors´perspectives and definitions of resilience. Resilience can be defined as an ability to adaptively copy when confronting with life adversity [1]. Ungar [2] defines resilience as the ability of an individual to obtain the resources necessary for experiencing of subjective well-being and the possibility of social and cultural backgrounds to provide these resources in ways that are culturally understandable. Resilience can also be taken as a personal trait as stated by Wagnild and Young [3]. According to them, resilience is defined with focus on positive, personal traits, with adaptive functioning of individual [3].

Special attention is given to social environment of resilient person. Ungar [2] embraces a diverse range of social characteristics of resilience and emphasized the quality of parenting. When one meets the child´s needs, the family is emotionally expressive and parents monitor the child appropriately. Many of the most relevant family studies have focused on particular aspects of family functioning [1, 4] One way of understanding parenting behaviour, particulary bonding, is through resilience.

Bonding is a type of emotional relationship that Ainsworth [5] characterized as unique, specific and long-lasting relationship that is usually formed after birth of newborn and is supported by hormonal functions of mother [6, 7]. Greškovičová [8] states two aspects of bonding: external and internal. Behavioral schemas (e.g. holding, carrying, rocking, feeding) belong to external aspect of bonding which is visible for observers. Internal aspect of bonding, usually measured by self-reported instruments, comprises of an affective compound (emotions of a caregiver towards a child e.g. love, joy, hostility) and cognitive compound (attitudes of a caregiver towards a child and mental representations of these interactions). Internal aspect is broadly studied. We can find bonding depicted as emotions (part of affective compound) in plenty of studies [5, 9, 10], we can find studies concerned with parents´ behaviour and their interest in infants [5], or mental representations of the relationship [11].

Research on resilience and bonding is absent whether discussing non-clinical, not-in-risk or those at various risks. Both concepts- bonding and resilience- deal with quality of social relationships. Bonding describes relation between a parent and a child and can be taken as one of the protective factors of resilience. Both concepts support idea of important adult that is so well known from the attachment theory [5]. We can find another interconnection when tackling with health. To have good relationship with child and to be resilient usually means to be healthy [5]. At last, but not least, both concepts are intertwined in specific period of life. If perinatal period is taken as one of the risk factors for resilience [1] then forming of bonding is also very sensitive in this period [6, 13].

As there is absence of empirical studies on relationship between resilience and bonding, the aim of our research was to explore this relationship. Therefore we formulated one research question:
RQ1 What is the relationship between resilience and bonding in our research sample?

2. Methods

2.1 Research sample and data collection
The research was quantitative, exploratory with correlational design.

We used snowball sampling via internet in January and February 2018. The criteria for including participants in the research were as follows: the Slovak citizenship, participants older than 18 years, full-term healthy infant less than 90-day old born in hospital. Our sample consisted

of 91 women participants aged from 19 to 44 years (M = 29.97, SD = 5.331).

The data were collected in January and February 2018. Two instruments plus sociodemographic questions were integrated into a single survey using the Google Forms online tool. Announcements about the possibility of participation in the study were made via multiple communication channels, such as Facebook groups and pages.

2.2 Methods of data collection

2.2.1 Postpartum Bonding Questionnaire
Bonding was measured by the Slovak version [8] of the Postpartum bonding questionnaire [9]. The instrument is a self-report screening tool that aims to identify mother-infant relationship problems. It has four dimensions: impaired bonding, rejection and anger, anxiety about care and risk of abuse. The items are scored on a 6-point scale ranging from "never" to "always". Summary indices are computed for each dimension and total summary index is computed as well. One of us [14] names the total index negative bonding because the instrument measures "negative" characteristics of the relationship. Higher summary index score indicates disturbance in the mother-infant relationship.

Researchers [9, 15] estimate good reliability (α= 0.77 / 0.95). In our study coefficient of reliability for negative bonding was high (α = 0.93), for each dimension as follows: Impaired bonding α = 0.88, Rejection and Anger α = 0.88 a Anxiety about Care α = 0.54. We excluded the fourth dimension (risk of abuse), because it was not differentiative and this is confirmed by other studies [9, 16].

2.2.2 Resilience Scale
Resilience Scale 14 [3] is a self-report instrument that measures general resilience stated in 14 items that considers five essential characteristics: meaningful life (purpose), perseverance, self-reliance, equanimity and existential aloneness. The items are scored on a 7-point scale from 1 = "I strongly disagree" to 7 = "I strongly agree". Higher summary index score indicates increased resilience. Reliability index is acceptable in previous researches [17, 18, 19] which was also confirmed in the present study (α = .855).

3. Results

3.1 Bonding
Distributions of all dimensions and Negative bonding were positively skewed. We concluded that all the variables are non-Gaussian distributed. Basic descriptive statistics is displayed in table 1.

Medium/strong positive intercorrelations between dimensions /between dimensions and Negative Bonding were found (rs> .45).

Table 1 Descriptive statistics of the bonding, source: authors

N= 32	Impaired Bonding	Rejection and Anger	Anxiety about care	Negative Bonding
Mean	6.64	3.59	4.05	14.74
Median	5,00	2,00	4,00	12,00
Mode	3,00	2,00	1,00	10,00
Std. Deviation	6.631	4.150	3.209	13.867
Skewness	2.918	3.622	1.525	3.442
Kurtosis	11.460	18.831	.253	16.541
Minimum	0	0	0	0
Maximum	42	30	17	99
Sum	604	327	369	1341

3.2 Resilience
Theoretical range varies from 14 to 98, empirical from 47 to 97. Basic descriptive statistics is displayed in table 2. We concluded that the variable- resilience is Gaussian distributed.

Table 2 Descriptive statistics of the resilience, source: authors

N= 91	Resilience
Mean	75.76
Median	78
Mode	78
Std. Deviation	10.309
Skewness	-.537
Kurtosis	-.268
Minimum	47
Maximum	97

3.3 Relationship between bonding and resilience
Assumptions of linearity between bonding variables and resilience variable were checked with scatterplots of the data. The assumption of linearity was met in all cases.

Correlational analysis (tab. 3) using Spearman's correlational coefficient shows negative relationships that are weak or medium. The strongest correlation was found between Negative bonding and Resilience (r_s = -.311) with coefficient of determination R^2 9.6 per cent of the variance.

Table 3 Correlations between bonding and resilience, source: authors

r_s	Impaired Bonding	Rejection and Anger	Anxiety about care	Negative Bonding
Resilience	-.281	-.225	-.218	**-.311**

We looked very close to each statement in RS-14 and related them to bonding variables (tab. 4). Item Meaning showed strongest relationships with each bonding variable. Several other items showed also medium relations, namely Self-regard, Dependable, Humor, and Pride.

Table 4 Correlations between bonding and resilience items, source: authors

N= 32	Impaired Bonding	Rejection and Anger	Anxiety about care	Negative Bonding
Ability to cope	-0,020	-0,074	-0,133	-0,141
Pride	-0,115	-0,142	-0,081	**-0,303**
Acceptance	-0,233	-0,145	-0,185	-0,282
Self-regard	**-0,302**	-0,203	-0,172	**-0,416**
Organized	-0,203	-0,233	-0,052	-0,215
Drive	-0,236	-0,267	-0,119	-0,277
Perseverance	-0,106	-0,027	-0,206	-0,193
Will-power	-0,134	-0,015	0,085	-0,080
Interest/engagement	0,031	0,087	-0,100	-0,124
Humor	-0,128	-0,150	-0,139	**-0,307**
Self-efficacy	-0,232	-0,174	-0,144	-0,251
Dependable	-0,289	**-0,323**	-0,149	**-0,406**
Meaning	**-0,449**	**-0,366**	**-0,362**	**-0,551**
Resoucefulness	-0,164	-0,090	-0,215	-0,268

4. Discussion

Researchers have recently focused on adults and adolescents with regard to resilience. It has been shown that resilience correlates with several psychological concepts and behavioral patterns. However, none of the studies have explored the relationship between resilience and bonding yet. Our aim was therefore to relationships between resilience measured by the Resilience Scale - 14, [3] and the quality of bonding (measured by the Postpartum Bonding Questionnaire by Brockington et al. [9]. Our research was quantitative, exploratory and correlational. Our sample consisted of 91 women of Slovak nationality with a baby less than 90-days-old.

Our research question (RQ1) was whether there is any relationship between bonding and resilience. To determine this possible relationship, we conducted correlational analysis using Spearman's correlational coefficient.

Results showed that there are relatively comparable relationships between bonding and resilience. The strongest relationship was shown between negative bonding and resilience, but it is not surprise since all the other bonding variables support this result. The relationship was medium and negative which means the higher the resilience is, the lower the negative bonding is. We can therefore conclude that more resilient women will have less negative bonding- less impaired bonding, less anxiety about their care, they feel less rejection and anger toward their kids.

We found interesting relationship between items of Resilience Scale and Negative bonding. Namely item Meaning correlates strongest with Negative bonding. When mothers are convinced about life meaning, they score low on negative bonding.

Several other resilience items- namely Self-regard, Dependable, Humor, and Pride- showed also medium relations with Negative bonding, which means that the more a mother get on well with herself, the more other people can rely on her in emergency, the more she can find

humor in things, the more she can feel pride that she has accomplished things in life, then the less Negative bonding she has.

Our results are in the line with theoretical concepts and empirical results. Resilience focuses on positive, personal traits, with adaptive functioning of individual [3], individual (comprising of ability to solve problems, optimism, empathy, etc.) and relation resilience (social competences, emotional expressivity, perceived social support, etc.) [20] and therefore overlap with bonding.

This study has several limitations such as purposeful sampling and sample approach. Indubitable drawback is online data collection. As to instruments, Postpartum bonding questionnaire measure "negative" characteristics of mother-infant relationship which is rather uncomfortable for women to answer. We have to also careful with interpretation since the name of the instrument suggest positive quality of bonding but it actually measures negative aspects. Two self-report instruments can both be subject to social desirability bias.

In our research, resilience has obviously negative medium relationship with negative bonding. We take this research to be unique thanks to two constructs- resilience and bonding- to be interconnected for the first time.

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Session: History, Sociology

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HOFSTEDE'S CULTURAL DIMENSIONS IN THE VISEGRAD GROUP

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Abstract: This work summarizes the Hofstede's 6-dimensional model of national cultures. It also discusses the Visegrad Group and then summarizes the results of prof. Hofstede in the various dimensions of culture in the countries of the Visegrad Group.

Keywords: Hofstede, Visegrad Group, cultural dimensions

1. Introduction

The method introduced by prof. Geert Hofstede is the most famous and most important quantitative intercultural study tool, and it is also the most cited one. In 2013 his study was extended into a six-dimensional model of cultural differences, which we will deal with in a greater detail in the following sections of our work. Prof. Hofstede never claimed that his model is the only correct one, but many later studies are based on it [1].

1.1 Hofstede's 6-dimensional model

The basic research, which prof. Hofstede built on in his work, was conducted at the turn of the 1960s and 1970s. The fact that this study is more than three decades old but still the most commonly used method in intercultural studies, international marketing and even in the studies of the impact of culture on advertising, testifies to its credence. The study itself was conducted by IBM and its subsidiaries in 66 countries, and the two waves of research involved more than 117,000 respondents.

The original study defined four cultural dimensions, which were over time extended by the fifth one in collaboration with Dr. Michael Bond, and later by the sixth one thanks to the analysis of Dr. Michael Minkov, resulting in the well-known *"6-D model of national culture"* [2, 3, 4].

1. *Power distance*

   The first dimension deals with the so-called inequality in society, and the members of society accepting and expecting that power is distributed unequally between those who have it and those who don't. It also expresses the attitude of culture towards this inequality, and to what extent the members of institutions and organizations within a country expect and accept that power is unequally distributed.

   A high score in this dimension indicates that the society accepts unequal and hierarchical division and is fine with knowing their "their position".

   A low score in this category means that the power is shared and distributed in society, and the people accept the situations where power is distributed unequally.

   Application: According to the research, in a country with a high score, such as Malaysia with 100, the members of society will not initiate any action and they can be easily steered and directed to complete their tasks.

2. *Individualism vs. collectivism*

   This dimension describes the strength of the ties among the people within their relevant communities. The basic issue it deals with is the degree of mutual interdependence, which the society maintains among its members. It is defined by how a person perceives his/her image: "I" or "we".

   A high score indicates poor interpersonal connections among those who are no longer members of the narrow core (family). In individualist societies, the people must take care of themselves and their family.

   A low score in this dimension represents a collective society where its members must be loyal to the group they belong to, and the group will defend their interests.

   Application: Guatemala has a very low score – only 6. Therefore, a marketing campaign, which highlights the benefits for society, would be probably well understood and received because the people affected by such a campaign feel they belong to the same group.

3. *Masculinity vs. femininity*

   This issue deals with how the tasks are divided between men and women. The most fundamental question is what motivates the people: be the best (males) or love what they do (females).

   A high score represents masculinity and suggests that the society is driven by competitiveness, success and the endeavor to win, which already begins at school. In the societies with masculinity traits it is expected that the male and female roles do not overlap, and men are expected to be assertive.

   A low score points to femininity, and by contrast, it testifies to a large overlap between the roles of the sexes. Modesty is seen as a virtue. Great importance is given to good relations and cooperation between the people. In such a society, the quality of life is a sign of success and admiration.

   Application: Japan has the highest score of 95. Therefore, if you open an office in Japan, you should

know you are working in a hierarchical, differentiated and traditionally patriarchal society. Long working hours are the norm, and this may have an impact on women as members of the team to get promoted because of their family obligations.

4. *Uncertainty avoidance*

This dimension is related to the way the society deals with the fact that the future can never be known: should we try to control our future or just let it be? This ambiguity brings anxiety and different cultures have learned to cope with this anxiety in different ways. It is the extent to which the members of a particular culture feel threatened by ambiguous or unknown situations and create the beliefs systems and institutions to combat them.

People in the cultures with low scores are more relaxed, open and impulsive.

In societies with a high degree of uncertainty avoidance, the people are trying to live their lives in a way to be able to foresee, predict and control their destinies.

Application: In Hofstede's model Greece scored 100, while Singapore had the lowest score of only 8. Therefore, during a meeting in Greece you will be looking into creating a discussion because you realize that the members of the team see culture as something that leads to the tendency of making the safest (conservative) decisions despite emotional explosions.

5. *Long-term orientation*

This dimension is the extent to which people need to explain the inexplicable, and it is strongly associated with religion and nationalism. Likewise, it also describes the way each society maintains a certain connection with its own past in addressing the challenges of today and tomorrow.

This dimension was added only recently, so we can only make an indicative conclusion that the countries with a high value tend to be pragmatic, modest, long-term oriented and efficient.

In the countries with a low score the people tend to be religious and nationalist.

Application: The US has a normative score. This is reflected by the importance of short-term profits and speedy results (e.g. profit and loss statements are quarterly).

6. *Indulgence (pleasure vs. restraint)*

This dimension is defined as the extent to which people are trying to control their desires and impulses based on how these were instilled in the human personality because one of the challenges in society is the socialization of little children.

The countries with a high score allow or encourage the people to meet their own needs and pursue their emotions, such as joy of life and fun.

In the countries with a low score, more emphasis is put on suppression of satisfaction and greater

regulation of people's lives, their behavior and more stringent social standards.

Application: According to this research, the countries of Eastern Europe, including Russia, have a low score. Hofstede argues that these countries are characterized by cultural limits with a tendency to pessimism. People put little emphasis on leisure and pastime, and they endeavor to put a limit onto themselves [5, 6].

1.2 The Visegrad Group

The Visegrad Group was established on February 15, 1991 at the meeting of the President of Czechoslovakia Vaclav Havel, President of the Republic of Poland Lech Walesa and Prime Minister of Hungary József Antall. This high-level meeting in Visegrád, Hungary, created an imaginary historical arch that connects this meeting with a similar meeting held back in 1335.

The formation of the Visegrad Group was motivated by four crucial factors:

1. desire to eliminate the remains of the communist regime in Central Europe;
2. desire to overcome the historical animosity between Central European countries;
3. belief that through joint efforts it will be easier to achieve the goals (successfully achieve social transformation and participate in the process of European integration);
4. closeness of opinion of the ruling political elite. [7]

The Visegrad Group, also known as the "Visegrad Four" (hereinafter referred to as V4) represents the efforts of Central European countries to work together not only on political issues but also in social interests and the pan-European integration. This Group has the following member countries: Czech Republic, Hungary, Poland and Slovakia. Thanks to their history, they have always been part of one civilization with common cultural and intellectual values and common religious traditions.

In order to preserve and promote cultural cohesion, the cooperation within the V4 countries is aimed at promoting and disseminating the values in the fields of culture, education, science and information exchange. All activities of this group are aimed at strengthening the stability in Central Europe. The participating countries perceive their cooperation as a challenge and its success as the best proof of its capability to integrate into such structures as the European Union. Their first target was met in 2004 when they all became members of the European Union on May 1. Schmidt 2016 says that the members of V4 managed to retain their importance and position in the European context, this special type of regional integration has survived and can now serve as a model for other partnerships among the European countries.

The economies of the V4 countries are similar in many ways. They can be described as post-communist

economies with a relatively high proportion of industry, heavily dependent on foreign capital and imports of energy resources from Russia. Germany is their largest trading partner. Despite these similarities and common political initiatives, the actual economic cooperation between the V4 countries is low. Instead, they rather compete for foreign investments and markets. It is interesting to see how similar the countries in this group are even in terms of the changes in their economic situation [8, 9, 10].

The V4 cooperation can currently be described as the most salient initiative in Central Europe. This cooperation stands on the mutual contacts at all levels (political summits, professional and diplomatic meetings, activities of non-governmental associations in the region, research institutions and others). The cooperation is also underway at the ministerial level and level of joint expert teams, which is an important part of the activities within the V4. At present, a number of joint projects are being implemented, particularly in the fields of culture, environment, internal security, defense, science and education.

The only organization within the V4 is the International Visegrad Fund. The fund was established in 2000 to promote the development of cultural cooperation, scientific exchanges, research, education, student exchanges and the development of cross-border cooperation and other areas, which represents the civic dimension of the V4 cooperation. In most cases, the Fund provides financing of non-governmental organizations and individual citizens. Apart from the grant programs, the Fund awards individual scholarships and residences to artists, which contributes to the exchange of views in the V4 region and neighboring countries. All activities of the Visegrad Group are aimed at strengthening the stability in Central Europe. The participating countries perceive their cooperation as a challenge and its success as the best proof of their capability to integrate into such structures as the European Union [11].

2. Cultural dimensions in the Visegrad Group countries
In this section, we will summarize the available results of cultural differences in the countries of the Visegrad Group according to the recent studies prof. Hofstede.

Table 1: Cultural differences in V4 (D-6 model)

Country and score/ Dimension of culture	CZ	HU	PL	SK
Power Distance	54	46	68	100
Individualism	58	80	60	52
Masculinity	57	88	64	100
Uncertainty Avoidance	74	82	93	51
Long Term Orientation	70	58	38	77
Indulgence	29	31	29	38

Source: Own processing on the basis of *https://www.hofst ede-insights.com/country-comparison/czech-republic,hu ngary,poland,slovakia/*

1. *Dimension: Power distance*
   With a score of 100 points, Slovakia shored the highest in this dimension in comparison with other countries. In the societies with a high score in this dimension it is perfectly acceptable that some people have more power than others. The people living in these societies accept and expect that these people also make use of their power.

2. *Dimension: Individualism vs. collectivism*
   In this dimension, Hungary achieved the highest score among the V4 countries – 80, indicating that Hungary is an individualistic society. This means that there is a strong preference for a loosely connected social framework, in which the individuals are expected to take care of themselves and their immediate family.

3. *Dimension: Masculinity vs. femininity*
   Slovakia achieved a score of 100, which is the highest score among the selected countries and it speaks of the fact that Slovakia is heavily masculine. It is important to be considered successful and achieve the goals. The social status is an important indicator, which is accompanied by showing what status an individual has. An important role is played by the status symbols such as cars, houses, clothes etc. The people work hard to achieve a high standard of living and the ability "to showcase their achievements."

4. *Dimension: Uncertainty avoidance*
   Poland achieved a score of 93 and therefore has a very high level of uncertainty avoidance. The countries with a high degree of uncertainty maintain strict codes of belief and behavior and are intolerant of unorthodox behavior and thoughts (in Poland, this may be aided by the fact that Poland is a highly religious country). In these cultures there is an emotional need for the rules; the people have an inner urge to be busy and work hard.

5. *Dimension: Long-term orientation*
   With a high score of 77, it is clear that Slovakia has the most pragmatic culture among the V4 countries. In the societies with a pragmatic orientation, people believe that the truth heavily depends on the situation, context and time. They demonstrate the ability to easily adapt to the changing conditions, exhibit a strong propensity to savings and investments, thrift and perseverance in achieving the results.

6. *Dimension: Pleasure vs. restraint*
   Hungary came out with a very low score of 31 in this dimension – but still the highest in the V4 countries. The societies with a low score in this dimension have a tendency to cynicism and

pessimism. In contrast to the hedonistic societies, the restricted societies do not put much emphasis on leisure and they control the satisfaction of their desires.

In the set of current results, we only described those that achieved the highest score in the said dimensions. Due to the limited number of pages we decided to summarize the remaining results in the conclusion of our work.

3. Conclusion

We have chosen the often criticized cultural differences from the studies by prof. Geert Hofstede, which nevertheless remain the most cited. We chose them deliberately because we come from one of the V4 countries and based on our own experience we can compare the cultural differences in these countries.

According to the presented results, especially in the first five dimensions, which were studied long before the sixth one, we see the gaping differences that are certainly not manifested as such in real life.

The greatest diversity among the countries of the Visegrad Group is language, which is one of the signs of culture. The other characteristic traits of the residents are markedly similar.

According to the presented results, it seems the Slovaks are the most masculine group and they are most aware of the differences in the society. Since I am a Slovak, I find it hard to agree with these results.

Mainly the results in the last category surveyed, i.e. Pleasure vs. restraint, can be considered as most objective and telling because this category was added in 2013 and its results were actually recorded and not edited on the basis of previous results. In this category we can also see how the citizens in the Visegrad Group countries are alike since the differences between the individual countries are only spanning 9 points, which is not the case in the previously studied categories where even 50 point differences could be noted.

The aim of our paper was also to show that the research results should be treated with caution because the researchers are only human and every researcher should collect their own relevant data where possible.

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SOCIETY AND LANGUAGE INTERNATIONALIZATION (IN A CENTRAL EUROPEAN CONTEXT)

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Abstract: In the cultural and geographical territory of Central Europe some peculiar factors, connected to social (and also linguistic) changes that have resulted from the transformation of political development since early 1990s, can be identified. In the previous period of history the countries in the heart of Europe had been ideologically East-oriented. The radical transformation in their political structures, coupled with the arrival of democracy shortly after the Iron Curtain fell, have determinedly disrupted this one-sided orientation. The study helps to clarify some of the determinants that expanded the opportunities of internationalization of Central European languages. Providing examples from Czech and Slovak language, we also illustrate the impact of internationalization of this specific cultural and geographical area.

Keywords: Central Europe, Language Internationalization, Foreign Words

1. Introduction

"In the history of mankind, there are periods when the tendency to convergence in the world dominates, and the period when development progresses divergently" [1]. At present, we can recognize shifts leading more towards general European integration and globalization. They are also interconnected to the internationalization of the Central European language environment, i.e. increasing the proportion of occurrences of elements borrowed from foreign languages, which, among other things, deepens the intellectualization of language expression [2]. This process is a consequence of the development of a geopolitical situation in which the Central European region first found itself shortly before the turn of the millennium.

2. Transformation of a society under general liberalization after the Fall of the Iron Curtain

One of the effects of the process of democratization of the region caused the expansion of the content and subject matter of new topics in discussions. The acquisition of the political freedom of small nations living in Central Europe is closely related to freedom of expression – the elimination of restrictive measures used in normalization period, particularly censorship, has finally created the conditions for the development of international dialogue and polemic. After the Iron Curtain fell the dissemination of information about diverse cultural elements coming from the Western world, including literature, was shortly a subject to no further obstacles.

An increase in awareness about foreign political and cultural features also initiated a change of the general opinion and reorientation of the majority of Central European society. Major consequences of the gradual detachment from the ideological practices associated with the previous regime can be seen in complex transformation that the society came through. It also reflects in the dynamics of the language, which we are looking at closely.

2.1 Language and communication competence

The generation known as "Husák's Children" (a generation born in period of the most significant baby boom between 1965-1979, named after Gustav Husák – a communist leader in Czechoslovakia at the time), it is different from the elders in many ways – the weakening of political ties with Soviet Russia that took place in early 1990s, allowed them to look for individual cultural ideals and images beyond the former (pro)Soviet environment. The generation, that also deserved the nickname "MTV generation" (according to foreign music channel MTV), experienced new learning and educational models spread around countries in Central Europe (projects "Duch školy" in 1991, "Projekt Konštantín" in 1994 in Slovakia, in Czech Republic the reform process of educational system have been finalized after 15 years since the Velvet Revolution). It has become an incentive to create an ever-closer relationship of Millennials (generation born in 1980-1995, also "Generation Y") to the "Western culture". Together with the boom of new media, the liberty of choice and a variety of options provided also affected the sphere of development of their communication capabilities. Extended opportunities of getting in contact or learn foreign languages other than Russian generated an increase of a general interest in other world languages, namely German, French and, of course, English.

3. Modifications of the culture and language

Changes in language awareness are directly influenced by the dynamics of the social environment in which language exists and is modified. The society naturally responds to fundamental (political, cultural and other) transformations in all spheres of life - individual language levels (morphological, syntactic, but mainly lexical) were modified due to updated needs of language users too.

Changes in the economic and political structure of the countries (joining the EU in 2004 positively influenced the deepening of transnational trade relations and so forth) related to the emergence of new forms of social relations and other denotations that were necessary to name, eg. the

transition to a market model in the economy has triggered the activation of the aspect of time of a part of the lexicon - historization and neologization of a lexicon from market economy. The renewal and introduction of new types of production of services and goods has brought the expansion of professional jargon. By analogy, the needs of society were reflected in the update of the lexica in other spheres of life. The fulfilment of these new communication needs of the language users could be achieved, in addition to intralingual motivation, by acquiring foreign language lexemes - the opening of the Central European area to foreign cultures has also led to internationalization of its languages.

3.1 Transformation of lexicon in the process of its internationalization

The new possibilities, which were mainly brought about by the political changes in the last decade of the previous century, influenced not only the dynamics but mainly the quantity of borrowing foreign words. This process is linked to europeanization, globalization and the overall liberalization of a society, ultimately language. In this context, the thematic focus of social discourse has been expanded to include some themes related, for example, to culturally determined lifestyles. The effort to eliminate some of the previously established prejudices against foreign cultural elements is an accompanying phenomenon of globalization, created also within the framework of building a multicultural society. As a result of this process, many themes have been de-tabooed, e.g. those related to the habits determined by cultural or religious reasons, such as halal, kosher, ayurveda, satvic diet (halal, kóšer, ajurvéda, satvická strava in Czech or Slovak language). Such representations of foreign cultures in both literary and non-literary texts were a means of expressing ethnic or cultural stereotypes [3].

With the expansion of travel possibilities, interest in getting to know new cultures has also been increasing. Tourism became not only a theme but also a means of strengthening inter-language contact. Mass import of foreign-language words, largely Anglicism of an international character (e.g. low-cost, budget, backpacking, stewardess, ultra last minute, booking, all inclusive, check in and many more) comes from this sphere. Vocabulary regarding interests and activities (hobby, blogging, vlogging, patchwork), including sports (power yoga, fly fit, cross-fit), has also expanded. Popularity of them has been growing under the influence of other cultures on ours. Similarly, it is with other foreign words that are spread to the interest and availability of information about foreign cultural patterns or modern lifestyles (hipster, hygge, influencer, digital nomad). The shift of science and research to sub-issues and specific thematic areas as environmentalism, zero-waste and gender studies continues to grow its popularity in a global dimension. Technical development and science have always been bringing new word inventory, regardless of the era.

In the complex view on the process of adopting other cultural patterns, new words are being created in pretty much every area of life. By gradually establishing these linguistic (but also cultural) elements within the vocabulary, many without their formal adaptation (i.e. by preserving the original formal structure of the borrowed words or phrases – as illustrated above), they are losing their "exotic character" [5].

Acknowledgements

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ASPECTS OF A FULL FAMILY LIFE AND PROTECTION OF FAMILY IN SLOVAKIA

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Abstract: In the first part of the article we introduce selected aspects of a meaningful family life, namely respect and fulfillment of needs, communication, relationships and forgiveness. In the second part of the article we focus on family protection in the Slovak legislature, specific measures focused on family in the Law on the Family (36/2005), on Social Service (448/2008) and on the Social and Legal Protection (305/2005).

Keywords: family, protection, Slovakia, value

1. Introduction

Social worker dictionary defines a family as the most important social group, which is the economic and social cell of the various tasks [1]. The family is primary social group. Members of primary groups are interrelated with stronger ties and relations between them are more personal and intimate. These bonds are intensively forming the personality of a person. The family is composed of two or more persons living together in the same household who are elated to marital blood or adoptive volumes [2].

Family - in the course of history - has been extensively intervened by profound and rapid changes. Many families are experiencing these changes in fidelity to the values that form the basis of family life. However, there also families where the uncertainity, mistrust, frustration or ignorance prevails about the main objective and the nature of the family [3].

The family is a community of people for whom, the most natural way of existence and coexistence is so-called *communio personarum* – a community of people. The family is a communion of love and self-giving to one another, it find its law, which affects its growth and development. Self-giving that inspires mutual love between spouses, has to be a model and standard for self-giving between their children and other family members who live together in the family. Share of everyday family life, whether in times of joy or pain, it is best to prepare the children to enter the life of the wider society [4].

Family is by unique and effective way contributing in bulding the world by the possiblity to love a truly human life but especially by the fact that it guards and mediates virtues and values. Given a society where there is a risk to lose sensitivity to man and whih is becoming the crowd clusters, thereby losing the character of humanity and the harmful effects drives people to many forms of escape, such as drugs, alcoholism, prostitution, terrorism, family owns and propagates awesome power, capable of ripping the man out of the annonimity, to keep him aware of his personal dignity, enriching his deep human feelings and to incoroporate him actively as unique and unrepreatable being to the tissue of the society [5].

2. Aspects of a Meaningful Family Life

In this part, we want to point out the ascpets of family life, which makes it full.

▪ mutual understanding, respect and fulfillment of needs of each family member

On one hand we desire to understand ourselves and we strive for it; but on the other hand our inner is adapted in a way, where it has several safeties how to prevent self-understanding. If we truly want to understand ourselves, we have to get rid of fear of the dark, fear of what we could discover in ourselves. We need to look around in the darkness of our inner, which requires time and patience. Self-understanding is for people, who are willing to invest energy in personal growth, who want to firmly stand on their feet, find responsibility for themselves. The precondition is interest and willingness to invest in time and energy in work on oneself [6].

An individual man cannot give himself award, nor recogniotion, which every human being desires for. To not appreciate a man is unnaturral and this inability may emanate from a lack of appreciation for education. This activity can be inhibited, or push the person to overactive behavior. A person becomes a balanced and steady when it is aware of not only of his weaknesses but also of his strenghts [7].

It is necessary to accept oneself, so that we can accept others. There is a deep, two-way connection between accepting oneself and accepting others, one supports the other. Frequently we cannot accept others, because essentially we are not accepting ourselves, even though we are not aware of this. Not accepting ourselves creates inner tension in ourselves, frustration and dissatisfaction, which we usually transfer onto others, and they become scapegoats of our inner conflicts [8].

In order for one person to correctly love another person with his or her faults, first he or she has to truthfully look at oneself, and accept oneself: accept own limits, restrictions, shortcomings and skills, fears and hopes, position in life, own assets, age, sex, sexuality and

appearance. This self-acceptance is easier for each person, if he or she had a happy childhood, when as a child he or she experienced the depth of safety at home, when his or her parents gave the child their love in a correct way [9].

▪ communication

When two personalities meet in a relationship, especially in a marital relationship, both bring specific understanding, schemes, culture and style of communication. Two different lifestyles, experience mix into an independent unit. Inability of communication is the most frequent marital issue, which is solved today by psychologists and marital therapists. Research suggests that maturity of marriage is characterized by communication of mutual feelings and great openness [10].

Regular dialogue in the family is needed for a full family life. This includes a listening, involving the whole being, especially the heart, from which the involvment is radiating from and solidarity, and speaking from the depths of the heart, which not only gives information and ideas to the next person, but also feelings [7].

Communication in marriage can be schematically divided into: Common communication, which supports contact, like sharing an opinion on events, people, movies, etc. It can be emotionally neutral, positive or negative. Dialogue about issues, which can have the nature of emphasizing the issue, searching for the guilty party, critique, a form of destructive arguing, attempt at solving the issue or accepting the issue. Dialogue about existence, which represents especially personal sharing of oneself, revealing oneself or deep emotional experience of mutual understanding. Dialogues about relationship, which can have meaning for clarifying the foundations of the relationship, what changes happened to the relationship, what is the perspective for it, and who and it what way can contribute to its growth [11].

Functional family is the one, which members talk directly with one another about their observations, thoughts, needs and emotions If a family member experiences something, he or she needs to express it directly to given person. For example if the mother tells the father, that their son is angry with him, because he didn't allow him to drive the family car, this is not considered a direct communication. This communication is called triangular. Indirect messages from others can cause misunderstanding, hurt and anger, because they come from a second-hand source. These are communication means in dysfunctional families. This communication keeps family members at a distance, without inner touch, and can cause conflict. If the mentioned son tells his mother that he is angry with his father, it is OK. But the mother should tell him that she understands his anger, but it is necessary to tell it to his father himself and how he feels that he didn't allow him to drive the family car. This is a mature way of how to handle an issue [12].

More marriages die of silence than violence. And frequently it is the silence that causes violence. When we are putting our time to something, we are also putting our life to it. And when we are putting our life, we are also putting our love there. And when we are putting our love to something, then we also find our happiness. Thus, the time spent tohether with family is bliss [7, 12].

▪ full-fledged relationships

A full-fledged relationship means that we are able to share not only what we perceived and what we thing, but also what we feel and need [12].

Each child needs to experience loving relationships in his or her family for his or her healthy development. The child needs an experience that his or her children love him, they help one another and can forgive. This is the most important experience for a child. The child has to constantly experience that his or her parents love him or her without any conditions. All parents think they love their children. However it is not always the correct type of love. Oftentimes it is love, which wants to own, which doesn't give the growing child freedom and independence, but maintains it in dependence and obedience. These bonds prevent the child from getting self-confidence, in order to gradually become independent and self-reliant.

Relationship between parents is the most important relationship in the family institution. It is the expression of mutual love of spouses, their greatest bond and the axis of family life. It is also the fundamental relationship the child perceives and is affected by it. The parents-children relationship is reflected from the quality of this relationship. This relationship of parents loving children is extremely important for the children; therefore it must be subordinate to the principle relationship of love between the parents. In order for the family to meet its mission, for the man the most important person in the family is his wife and after her their children. And for the wife the first in the family is the husband and then their children. This is the correct order of relationships in the family; an order, which is oftentimes difficult to understand for the parents, because their love for their children has partially a character of appropriating love. The basic relationship between the man and the woman in the family is superseded only by their relationship to God, which is the light in the darkness and strength in difficulties. Thus for each of the spouses the order of the relationships is: God, marital partner, children, parents, other relatives and friends [9].

The real crisis does not lie in the world economy, technology, in mineral resorces but in a crisis of love. The fundametal problem, which we do not recognize anymore, can not be addressed from the family, but it must be addresed by the family and society. The family is a place where relations have to created and where they have to grow, it affects the way we approach each other in our family, it affects the way treat other people outside the

family and also the way in which we approach to God as well. Adverse situation (divorce, sexual abuse, alcoholism etc...) are manifestations and consequences of brittle or frozen relations in families. The difference between house and home is just the loving family relationships [7].

- forgiveness

Mutual forgiveness has healing power. If you do not want to forgive, it is a consequence of the fact that we are controled by the old addiction, pride, anger and family becomes unbearable for the persistence of family, because of unforgivness. Forgiveness is a twoway experience: able to forgive - accept forgivness [7].

The process of forgiveness contains three types of steps: intellectual (will), emotional and spiritual. The will aspect includes choice – decision, act of will – forgiving or accepting forgiveness. The emotional aspect contains the part of the process, which contains our contact with painful emotions, which are frequently accompanied by the act of forgiveness or accepting forgiveness and working out these emotions. The spiritual step is related to the part of the process, which enables us to let go of the hurt and anger and move in life.

Forgiveness represents process of absolution. Reconciliation means healing and also return of the damaged relationship into its original state. Without forgiveness there will never be true reconciliation [12].

3. Family Protection in Slovakia

- Law No. 36/2005 Coll. on the Family

Marriage is a union between a man and a woman. The society protects this unique union and helps it to prosper. The husband and the wife are equal in their rights and their obligations. The main purpose of marriage is to start a family and properly raise children. Family established through marriage is the basic unit of society. The society protects all forms of families.

Parenthood is the mission of the woman and of the man, which is especially recognized by the society. The society recognizes that a stable family environment consisting of the father and the mother of the child is the most suitable environment for a versatile and harmonious development of the child. The society provides parenthood not only protection, but also the necessary care, especially through material support of the parents and assistance in executing the parental rights and obligations.

The interest of the minor is the primary consideration in all matters related to the minor. In determining and assessing the interest of the minor, the following is considered in particular: level of childcare, safety of the child and his or her environment, protection of dignity, as well as mental, physical and emotional development of the child, conditions for maintaining the identity of the child and the

development of his or her abilities and talents, conditions to create and develop relationships with both parents and siblings, use all available resources to maintain the family environment of the child, if intervention in parental rights and obligations is being considered.

The fulfillment of the support obligation of the parents to their children is their legal duty, which lasts until the children are able to take care of themselves. Both parents contribute to support their children based on their abilities, possibilities and assets, whereby each parent is obliged to fulfill his or her duty in the minimum extent of 30% of the subsistence minimum to for a dependent minor child. Supporting his or her child takes precedence to all other expenses of the parent [13].

- Law No. 448/2008 Coll. on Social Services

The Law defines special social services to support a family with children, which include:

Assistance with childcare is appropriate when the parent or the person entrusted with personal care of the minor is not able to provide care for the minor by him or herself or with the assistance of the family and there are no other reasons needed to be considered when considering the interests of the minor, which would require the use of a specific regulation. This social service includes the assistance with basic childcare tasks, assistance with preparing for school, education and leisure time activities. The reasons for providing this social service include e.g. illness, injury or spa treatment, death of one of the parents, childbirth, the birth of at least 3 children simultaneously, the birth of 2 or more children simultaneously over 2 years (up to 3 years of age of the youngest children).

Temporary childcare is appropriate when the parent or the person entrusted with personal care of the minor is not able to provide care for the minor by him or herself or with the assistance of the family and there are no other reasons needed to be considered when considering the interests of the minor, which would require the use of a specific regulation. This social service includes the assistance with basic childcare tasks, social counseling, accommodation for a certain period of time, catering, cleaning, washing, ironing, assistance with preparing for school, education and leisure time activities.

Service for providing support for harmonizing family and professional life for the parent or the person entrusted with personal care of the minor. This is applicable during the time of preparation for the labor market (child is under 3 or under 6 if there are health issues). This social service includes the assistance with basic childcare tasks, assistance with preparing for school, education and leisure time activities.

Service of timely intervention focuses on children under 7, if his or her development is at risk due to a disability and family of the child. This social service includes social

counseling, social rehabilitation, stimulation of complex development of the child with a disability and preventive activities.

The protection of family also includes some social services of crisis intervention, namely:

Low threshold social service for children and families, which is designed for people and families with negative life habits, way of life or addiction. This social service includes social counseling, social rehabilitation, preventive activities, assistance with preparing for school, taking the child to school and picking him or her up after school and leisure time activities.

Emergency housing facilities, designed for victims of abuse. This social service includes the provision of temporary housing facilities, social counseling, creating conditions for preparing meals, basic hygiene and leisure time activities [14].

▪ Law No. 305/2005 Coll. on the Social and Legal Protection of Children and Social Custodianship

This Law regulates the social and legal protection of children and social custodianship to prevent the occurrence of crisis situations in the family and protect the rights and legally protected interests of children. It also prevents the deepening and recurrence of disorders of the mental, physical and social development of children and adults and it limits the rise of socio-pathological phenomena.

Social and legal protection of children is a set of measures to ensure: protection of the child, education and comprehensive development of the child in his or her natural family environment or in a foster environment, which cannot be raised in his or her own family.

Social custodianship is a set of measures to eliminate, mitigate and prevent the deepening or recurrence of disorders of the mental, physical and social development of children and adults and providing assistance.

Facilities of social and legal protection and social custodianship include children's home (center for children and families), crisis center and re-socialization center [15].

4. Conclusion
The family is the basic unit of the society. It represents a place where a person is born, is raised and prepares for his or her own life journey. It is therefore important for the family to be a cradle of love, safety and peace for all of its members. For the family, mutual understanding, respect and the fulfillment of all of its members' needs are important, as well as open and honest communication, meaningful relationships and the willingness to forgive. Each society has a legislative framework designed to protect the family. In Slovakia, this includes the Law on the Family, which also defines marriage, points out the primacy of the minor's interests and clarifies the support

obligation. Furthermore, this includes the Law on Social Services, which defines social services as services to families with children, specifically childcare assistance, temporary childcare assistance, service for providing support for harmonizing family and professional life or the service of timely intervention, as well as social services of crisis intervention, such as low-threshold social service for children and family and emergency housing facilities.

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YOUNG PEOPLE'S VIEWS ON POVERTY AS AN INDIVIDUAL PROBLEM

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Abstract: *In the introduction of this work, we are trying to theoretically define poverty. Poverty means a scarcity and people at risk or suffering have usually very low income. Poverty can really hit anyone. The main aim of this work is to point out on the outputs of the research. We focus on information of young people and how they understand a poverty as an individual problem. The paper further interprets the data from young people.*

1. Introduction

Poverty is and epidemics which affects large amount of people on our planet. Many organizations and also states fight the poverty. However, in order to eliminate it, first we have to understand what its causes are and think about the possible solutions. Poverty is complex and multidimensional concept and for its understanding we need to look at some characteristics and circumstances. Poor people often lack income, but also education, health, justice service, happiness, work adaptation, and other resources and opportunities in their lives. In this case, poverty can be understood as withdraw of abilities to achieve the goals of an individual in their lives.

1.1 Poverty

Poverty has been affecting human existence since immemorial time. It is a phenomenon that is present at this time, but has also occurred in the past. Poverty affects not only developing countries, but also the most advanced states of our planet. The attitude of people and society to poverty are changing and evolving by time. The causes of poverty are different in our society, and the authors are trying to define them but their answers are different [1].

In the past, poverty was labeled and defined as a lack of money, until it was gradually redefined in a more precise definition than an existential minimum. Man can perceive poverty in two dimensions. In the first dimension it is based on insufficient monthly income. In the other case, failure to meet basic needs, such as food, housing, healthcare, clothing [2].

Poverty is a condition in which an individual person or group of people cannot meet the basic human needs and maintain a minimum level of life quality. Above all, the term poverty is associated with a lack of resources, generally economic, that serve to maintain a decent, viable state. Poverty represents and promotes a vicious circle that causes a lack of financial income, education, employment, and conditions that allow an individual to develop social and economic development.

Bánovičová and Levická [3] describe poverty as one of the oldest problems of humanity. They point out that states are struggling to fight poverty in the long term and adopt legislation that would best protect their citizens from non-succession and secure them at different stages of life.

According to Šlosár [4], there is no state nowadays without unemployed people who have a close tendency to fall into a state of poverty. Poverty, as a social phenomenon, is growing and states are trying to overcome it with support systems.

We can say that poverty is the oldest social problem. In a blued society, the issue of death is not starvation, but a question of inequality and unavailability. Poverty as a social phenomenon can be characterized as a social problem. In the SR, poverty is associated with social phenomena, e.g. redundancies, long-term unemployment, the disappearance of the middle class in society, the young generation of inactive people and the aging of the population.

Bruenig [5] describes two theories that cause poverty in an individual:

- The first theory explains that poverty is an individual phenomenon. From this perspective, people are in poverty because they are lazy, uneducated, ignorant or otherwise less gifted. If this theory is true, it should indicate that poor people are basically the same.
- The second theory describes poverty as being a structural phenomenon. This name implies that people are in this poverty because they are in "holes" in the economic system of the state that do not give them sufficient income. Because individual lives are dynamic, people are never safe about them. They are in a low-income budget for one year, but they are no longer the next year if they have found a job or other financial subsidy.

2. Qualitative Research

In 2018, we conducted qualitative research in Ružomberok between January and March with the aim of identifying the

subjective opinions of young people on poverty. In this research, we used the semi-structured interview method. The objective of the sub-goals was to explore how young people perceive poverty as a social phenomenon and social problem. Further explore their individual views on poverty in their own lives and in the immediate vicinity. In this work, we focus on the third research question: *"Do young people perceive poverty as an individual problem?"*

2.1 Subject of Research
The subject of a research was to find out opinions on poverty among young people, namely whether they encountered poverty in society, the individual and whether they felt poverty on themselves.

2.2 Object of Research
The object of our research was young people from the district of Ružomberok. We selected participants based on their age. The age limit criterion was from 20 to 30 years.

2.3 Aim of Research
The most important goal of our research was to find out the subjective opinions of young people on poverty. The objective of the sub-goals was to explore how our young participants perceive poverty as a social phenomenon and social problem in society and in individuals. Furthermore, to find out their individual views on poverty in their own lives and in the vicinity.

2.4 Interpretation of the Results
The research table in this work is called "Poverty as an Individual's Problem." We created a table from the participants' testimonials. Through participants' statements, we created a table with 1 central category, 1 category, 3 subcategories and 23 codes. Thorough interpretation of the interviews is dealt with in the subchapter entitled 'Young people's views on poverty' as an individual problem.

Table 1 Poverty as an Individual's Problem

Central Categories	Categories	Subcategory	Codes
Poverty	Problem of Individual	Causes	Generational Poverty Misfortune in Life Bad Health Low Working Wages Loss of Employment Unemployment Reluctance to Work Bad Money Management
		Problems	Lack of Material Things Lack of Funding Mortgages Health problems Addictions (alcohol, drugs, gambling) Social isolation Depression Suicide
		Influencing of Family	Negative Relationships in the Family Financial Problems Family Regression Family Abuse Shame for the Family Disinterest Judgmental

Source: Own processing, 2018

2.5 Young People's Views on Poverty as an Individual Problem
Our research question, *"Do young people perceive poverty as an individual problem,"* was whether young people blame the individual for poverty. Our research participants have agreed that poverty is a particular problem for the individual. According to them, it depends on what person is and what personality he / she has.

Ema said, *I think a person has a fairly large share of whether or not he becomes poor. Of course, someone really has a bad luck and only misery in life, but it can always be worked. She replied that if a person is seriously ill, he can't do anything.* To compare, Kristian's view is that, *"every man fights for himself. If he doesn't work and has no money, it's his problem.* Participant Lukáš expressed an interesting attitude towards poverty among individuals. He said, *"I feel that you can do it alone. Slot machines, gambling, drugs and alcohol. An entrepreneur who does not have a big contract done in a deadline and it ruins him.* Michal's response was very similar*; everyone can do it alone. Because everyone has their own minds and everyone can earn their own money. It's always possible to do this.* Dalibor has expressed himself like this, *it is sometimes a human problem and sometimes not. The mistake in my opinion is, even in my parents, a young person is hardly able to work out of what family he comes from. If his family doesn't help him, he is alone, but that is difficult for a person.* We think this is an interesting answer. The five participants with whom we have already interviewed responded in a similar way to the five young people whose statements we made.

The causes of poverty among individuals are reported most often by generational poverty, misfortune in life, poor health, low work wages, job losses, unemployment, unwillingness to work and poor management. In comparison, Nikola named such causes of poverty among the individual, *"individual irresponsibility, indiscretion, the desire to possess extraordinary things, and that is why individuals start lending money, losing their jobs, or laziness to work because it suits them Furthermore.* Natalie, as the cause of poverty among individuals, said that *"they drink alcohol, play slot machines, drugs."* Michal says, that the cause of poverty in the individual is *"unwillingness to change his lifestyle, inability to adapt"* And the participant, Christian, said they were *"low salaries in Slovakia or unwillingness to work."* The other five participants expressed us in a similar character.

Problems caused by poverty among individuals according to ten participants are lack of material things, lack of finance, mortgages, health problems, various dependencies, social isolation and depression. According

to the testimony of all the problems caused by poverty among individuals, it may result in suicide in the affected individuals. Participant Tomáš has listed the following issues, *"social isolation, alcoholism, health problems,"* which cause poverty among individuals. In comparison, Natalia said that people give money for what they do not need. Michal said that *poverty among individuals is manifested by lack of material things, restlessness in the soul, suicide. The other seven participants reported the same answers.*

According to participants' answers, poverty affects an individual's families. Poverty in his family causes negative relationships, financial problems, family disruption, family abuse, family shame, family members' lack of interest, and family condemnation. According to Romany, the family is worried. *"Poverty gets them into financial trouble."* They have to think about what to buy, whether their child goes, for example, to ski training. They have to take away a lot of things. *"Conversely, Mary said,"* If he is a breadwinner, it has a great impact on wife and children." If he is a family member, a son, a daughter that parents are also troubled and want to help them. It all depends on the relationships and nature of those people. Some like to manipulate and abuse family loved ones who give them money. Interestingly Dalibor replied that, *"I think it depends on the family and relationships in that family, whether they are interested in him or not."* The other seven participants were of similar opinion.

According to the statements of our ten participants, the analysis shows that an individual is responsible for poverty in his life. They also think that the poor family is threatened or affected by a poor family member. Participants answered questions comprehensibly and with understanding. Interestingly, young people responded to the same causes and problems.

2.6 Summary of Research Results
The research area was to find out whether young people perceive poverty as an individual problem. We find out from our participants' statements that they perceive poverty as a subject issue. According to them, it depends on what person is and what personality he / she has. The causes of poverty on the part of the individual are most often reported by our young participants, e.g. generational poverty, misfortune in life, poor health, low wages, job losses, unemployment, unwillingness to work and poor management.

We can say that we have deduced from the data obtained the problems caused by poverty in the individual, e.g. lack of material things, lack of finances, mortgages, health problems, various dependencies, social isolation and depression. Based on the participants' testimonies, it follows that after all these causes and problems one can commit suicide. After getting the data, we included the problems and causes listed in 16 codes.

Based on the responses of young people, we found that a poor family member has an impact on his household. According to the participants, it causes negative relationships, financial problems, disruption, abuse and shame for the family. All of this can lead to the family's disinterest and condemnation.

We can say that, according to young people, there are more and more poor people in need of help. They think that, in some cases, a person may think that he is poor, e.g. irresponsibility, loss of job, laziness, addiction, loans, etc. Poverty can cause various health problems. Participants agreed on the answer that poor individuals cannot provide the necessities for life. As a stimulus to poverty, individuals have reported mortgages and dependencies.

3. Conclusions
We have all heard that poor people only need to make better decisions in their own lives, work hard, stay in school and study, marry at the right time and not have children before they can afford them. For us, this is not quite true. Blaming the victims of poverty is not a solution. We believe that all our lives could be improved if we consider structural impacts as the main causes of social problems such as poverty and inequality. Perhaps then, company representatives could easily agree on their solutions. Most people claim that poverty is the result of inequality in society, but also of the individual's fault. There is no unambiguous and simple "recipe" for tackling poverty in the world. The problem of poverty should be addressed comprehensively. Above all, the most important starting point for helping people at risk of poverty is to maintain social cohesion among people through principles and guidelines, legislation and a program to combat poverty.

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SLOVAKS AND CROATS BEFORE AND DURING REVOLUTION IN HUNGARY KINGDOM 1848/1849

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Abstract: *The contacts of the Slavic nations during the Revolution were the culmination of their emancipation process, the search for allies in the struggles of political struggle for the preservation and development of their own cultures, the first Slovak national movement to cooperate with the Croatian revivalist movement. The two movements have strengthened cultural contacts and cooperation for common national goals before the revolution. The culmination of these efforts was military co-operation during the Revolution of 1848/1849. Little known cooperation between Slovaks and Croatians shows different political, cultural relations within the Hungarian Kingdom.*

Keywords: *National movements, Slovaks, Croats, Hungary Kingdom, Revolution 1848/1849*

1. Introduction

The revolutionary period of 1848/1849 was the first emancipation attempt by the Slovaks to join the modern European nations that formed from the end of the 18th century. To fulfill the ambitions of both political and national, Slovaks needed allies who shared the same or similar desires. The period of the first half of the 19th century was a time when ideologies such as pangermanism and panslavism came to the fore, forming the political view of the individual nations of the Habsburg monarchy. The little-known fact in Slovakia remains the relationship of Slovaks and Croats, two Slavic peoples who shared a common history since 1102. The common fates of both nations met and moved away in the course of history, but in key moments of threat the Slovaks and Croats found a common path for both nations.

2. Slovak/Croatian national movements

Bernolák's attempt to enact the rule of law of the Slovak language and the opinion-identifying opinions was synchronous with the beginnings of Hungarian and Czech national revival. Thanks to this, the thoughts of Slavic reciprocity have found their resonance with the Slovak intelligence and so have been shaped by the ideas of Slavic reciprocity and German romanticism. Leaders were P. J. Safarik in Novi Sad and J. Kollar in Pest. The national-emancipation struggle was not a specific feature of the Central European area alone; the August 1830 uprising in Belgium resulted in the country's independence, and in November the Polish nobility rose. In the Balkans, the Serbs gradually evolved from under the Ottoman occupation, and the Romanians also rose up against the Ottomans, a breakthrough in Romanian national awareness. The beginning of the revivalist ideas in Croatia can be seen as the Illyrian movement, which is mainly developed by the ideologist Ljudevit Gaj and the poet P. Preradovic. The basis for the Illyrian movement is Kollár's conception of a four-bar Slavic nation. Kollar himself writes: Not too learned, but at least at the first stage of education and education, Slav is to know the four now living more educated dialects in which books are written and printed, namely Russian, Ilyrian, Polish and Czechoslovak. [1] But as we know the Štúr's generation, it later dissociated itself from this collar division of Slavic languages and promoted a separate Slovak standard language. The process of revival, formation of modern nations was not motivated only by subjective factors, enthusiasm of the revivalists. Changes in the structure of society have created the social basis of national revival movements. However, the Hungarian nationalization law of 1844 complicated the solution of the national question.[2] The Hungarian national movement itself fought against Germanization, but the Hungarian movement's ideology was based on the suppression of the rights of non-Hungarian nations. In the Hungarian Dream, Hungarians and violent assimilation were mainly performed by Croats. Kušević in 1826 proposed a solution to the question of speech and nationality after the example of Switzerland and the USA. The analogous defensive character of the revivalist movement of Slovaks and Croats, which was a response to the Hungarian threat, creates, in addition to Slavic reciprocity, a history of continuity and continuity in the comparative view of these relations. Slovaks, like Croats, did not have their own standard language until the end of the 18th century. Latin, German, or Hungarian, which were applied in administration, could not fulfill the function of a communicative social language.[3] An important role in the formation of mutual relations was played by the group around Josef Jungmann, Josef Dobrovský and Slovaks Ján Kollár and Jozef Pavel Šafárik it has built and ideologically elaborated the concept of the idea of Slavic reciprocity as a social movement for the development of modern Slavic peoples. By contrast, the so-called Southern Slavs The Illyrian Movement (Croat Lj. Gaj, Slovenian B.

Kopitar and Srb Vuk Karađić) sought to build a single South Slavic language.[1]

3. Before revolution

These interrelationships helped to shape nationalist ideologies, and it was in the Croatian movement that it was the expansion of the Illyrian movement in the 1930s. In 1836 he presented the program Ljudevit Gaj to the public. In the context of Croatia's national recovery, national recovery is driven by two equal components: cultural and political. It is difficult to say which component is predominant and fundamental because both are based on a mutual relationship. [2] The South Slav idea in the Illyrian movement was a manifestation of market expansion efforts. The tendency of the transition from feudal to civil society was also reflected in the fact that clerks were also open to non-clerics. Even in the beginning of Gaj's performances in 1835, Štúr of Bratislava attested to strong connections with Croats. Croatian research emphasizes that the defensive brochures of Slovak scholars published by the Southern Slavs had a major impact on the prevalence of illyrism in the Croatian revivalist process. Of all, we can name the work of J. Rohoň published in 1832 or the brochure of M. Kuniš published in Zagreb in 1833. Associations and youth companies were more purposeful organized co-operation of national emancipation efforts. On the basis of new research, it can be added that it was not only the contacts and cooperation of two student youth clubs (Bratislava and Zagreb), but also contacts with the central Catholic seminar in Pest should be added if we do not emphasize the contacts of student companies in Levoča and Trnava with Croatian students. On the political level, the Sturgeons strengthen contacts with Croatian ambassadors in Hungary, in particular with their young secretaries. In order to better point out the above-standard relations of Slovaks and Croats, I can mention Ljudevít Gaj and his magazine Danica, where more Slovak materials were published than Slovenian and Czech. This points to common political and cultural objectives, as in the 1930s and early 40s Hungarian political elites tend to push the non-Hungarian peoples to accept Hungarian as their political and later cultural language. These conflicts also touched upon the sessions of the Presidents that met in Bratislava. In 1836, he adopted a law on the status of the Hungarian language by imposing a duty to declare laws in Hungarian, while the Hungarian text was considered official. Authentic proofs of documents had both an introduction and a conclusion in Hungarian, although they were originally written in Latin. The law also imposed an obligation to keep registers in Hungarian. The milestone in the pre-revolutionary events can be seen as the beginning of the publishing of the journal Magazine, Lajos Kossuth Országgyulési tudósitások (Kossuth's newspapers, 1832). Even Kossuth himself did not expect such a large impact of these handwritten newspapers on Hungarian society. The rapid expansion of the magazine to Hungary resulted in the awakening of civil society. The dream in Bratislava in 1832-1836 was a slow shift to the ideas of liberal society in the spirit of Széchenyi. Reciprocity reaches zenith before the culmination of Slovak national revival (1843-1848). This summary assessment is a logical deduction resulting from the historical conflict of the newly formulated Štúr's concept of Slovak self-reliance with the Illyrian worldview, based on the utopian Slavic idea. The ideological conflict, which culminates in 1843, was a temporary conflict in relations and the parallelism of the new ideologies of the revival of the two nations manifests itself in the gradual transformation of the Illyrian ideology between 1845-1848. Croatia dealt with illyrism, in neighboring Slavic countries, which it envisaged in the Illyrian movement, the idea did not find success. Only Slovenian nations condemned him, even Prešeren himself. And for the Serbs, the idea of illyrism was not up to date. The Illyrian movement did not receive the necessary support for other South Slavic nations.

4. Revolution

On March 15, 1848, a group of young radical democrats met in the Plivax Café. Among them were Sándor Petőfi, Mór Jókai and József Irínyi. Soon 20,000 people gathered at the Pest Square and heard the revolutionary poem Nemzeti dal. The situation gradually radicalized and the revolution spread to other parts of the Kingdom of Hungary.

The legal codification of revolutionary laws was granted to the Hungarian government by the so-called. April Laws. The laws confirmed the new legal arrangement of Hungary, the abolition of the Hungarian court office, the Hungarian governor and the abolition of serfdom. It is these institutions that represented the image of the absolute Vienna government. However, the ambiguity of April's laws on foreign policy, military and state budget caused discontent in the political representation of Hungary's mistrust. The fundamental problem was the relationship between Hungary and Croatia-Slavonia. Revolutionary events in the Habsburg monarchy also triggered a series of events in Croatia. The highlighting of the national requirements of March 1848 and the draft constitutional law of the Hungarian Parliament, which foresees a centralized state with Hungarian as the official language in which Slavonia would become an integral part of Hungary, and Croatia would remain provincial autonomy, caused the resistance of Croatian politicians. Representatives of the National Party, encouraged by the March revolutionary events in Vienna and the fall of Metternich, could not convene the Croatian Parliament, reshaping the meeting of Zagreb in the National Assembly. Subsequently, Hungarian politicians allowed the mother tongue to be used in parts of the country that are not an integral part of Hungary (Croatia-Slavonia, Fiume). The Croatian historian Tomislav Markus illustrates the situation during the revolution when he writes: In March 1848, riots appeared in Vienna and Metternich, a symbol of the pre-war order, was overthrown. The Hungarian elite took advantage of the weakness of the Vienna court and blackmailed the king and wanted to achieve great political concessions, which gave Hungary the status of a de facto independent state with foreign, military and financial

affairs. Soon the biggest problem of the Croatian political movement was the conflict with the new Hungarian government, which had formal legitimacy. The Croatian elite could not rely on the limited support of the Viennese court, which temporarily lost any influence in the Transylvania region, except for some Imperial army units. Many documents related to the then Croatian movement condemn even more than the Hungarianization policy and the compulsion of the Hungarian language by Slovaks, Romanians and Serbs. [3]

The question of nationalities has remained unresolved for a long time, although April's laws determined the equality of all the country's inhabitants, regardless of their nationality, Kossuth and other politicians remained in their previous positions and held the opinion of the only political nation. These attitudes led non-Hungarian nationalities to split and divide with the Hungarian representation and seek support in the Vienna government. "On the other hand, a large part of the non-Hungarian peoples have decided to stand up for a new government in Pest and take part in the upcoming war events (especially the Germans, except the Saxon Saxons, Ruthenians and Slovaks, less Romanians).

A multinational monarchy in a time of revolution has entered a deep crisis, the monarchy has been affected by the economic crisis, social and political problems. As a result of the compromise liberation of the subjects for compensation and only partial liquidation of the serfdom, there are peasant riots. The delegation of the Hungarian Estates Council in early March 1848 received great concessions from the Viennese camouflaged Revolutionary Movement. Obtaining a separate ministry was the overture of the Hungarian Revolution. The spring of 1848 marked the appearance of national political leaders who disagreed with Pest politics. Especially Croatians, Serbs, Slovaks, Romanians and Sassi of Transylvania. Serbian writer, historian and diplomat Andra Gavrilović[2] tells us about the problems between non-Hungarian nationals and Hungarian politicians: "In April of the same year (1848), the city of Novi Sad sent a delegation to Bratislava to submit complaints and wishes of the Serbian people in Hungary to the Hungarian Parliament. Among the deputies was the young Stratimirović. In Bratislava at Kossuth, the old members of the delegation did not even focus on the main thing, but Stratimirović had a plan, took the floor and vigorously declared that the Serbs would only calm down when they reached autonomy. Kossuth shouted angrily, "These are treacherous words, but when they are, then we will discuss with the sword!" Stratimirović proudly finishes: "Serbs are not afraid of it!" Requirements March 6 in Buda formed by Isidor Nikolić "" The Serbs recognize the Hungarian nationality and diplomatic dignity of the Hungarian language in Hungary, but require their nationality to be recognized and freely used their language in all their works and in their laws. " Unlike the Romanians, the Serbs at that time had considerable economic potential and privileges in the business sphere. On March 27, 1848, a Serbian National Assembly took place in Novi Sad, where

the demand for recognition of the Serbian nation was demanded for its own autonomous territory of Спркска Војводина (Serbian Vojvodina). 13th-15th In May, the autonomy and armed uprising against the Hungarian government was declared in Karlovice, resulting in a civil war in June.

Contacts between Slavic nations were also active during the revolution. On April 20, 1848 Ľudovít Štúr arrived in Prague. The Slovak representation managed to present the Slovak question before the international forum at the Congress. In Prague, Czech and Croatian austroslavism was used as a platform for further Slavic politics. The subjective aim of austroslavism was to fight the equality of the Austrian peoples by federalization. A serious moment, conducive to its justification, was the threat arising from the movement of the Great German national unification ideology. From the point of view of the comparison of the Slovak and Yugoslav national movement in the development of the revolution, a sharp controversy between the Slovaks and the South Slavs is important. The South Slavs - especially the Croats - demanded that the Slovaks declare Slovakia's independence in Hungary, but the Slovak delegation remained on the platform of Hungary's integrity and possible agreement with the Hungarian government. Štúr, Hurban and their companions are developing Slovak-Croatian action against Hungarians in the Slavic movement during this period. A joint Slovak-Croatian Committee (Štúr, Hurban, Gaj, Strossmayer) was formed for joint coordination and they discussed support with the Poles. The following months after the Slavic Dream in Prague, Slovak political representation fled to the South Slavs. The main hope of the Slovaks is the Croatians as the strongest opposition factor. To Zagreb, respectively. to the Serbs who already 13th-15th On May 17, at the Church and Autonomous Council in Sriemske Karlovice, they declared the autonomy of Vojvodina and its connection with Croatia. We are talking about the Croatian stage of the Slovak national liberation struggle in the revolution. [1] The Croatians broke with the political representation of Hungary in the area of the integrity of the country and demanded joining the Austrian part.[5] The position of the Croats is perhaps best described in the statement that was sent to Pest in September 1848 "We want equality and equality of all nations and nationalities living under the crown of Hungary. Since then, the Hungarian ministry has believed that it cannot agree to these treaties, it is our honor and duty to try to negotiate or fight with weapons. The idea of federalization of the monarchy, and cooperation between the Slovak-Croatian armed corps is also being implemented in this period, with mutual support and cooperation being expressed.

5. Conclusions
The Hungarian Revolution did not evolve according to the ideas of Hungarian politicians and the revolution was suppressed in the summer of 1849 by Russian troops. The Imperial Court in Vienna subsequently tried to pacify individual national movements. Slovaks and Croats, after

the revolution, did not achieve greater concessions from the imperial court in Vienna, and in essence, the state of affairs returned to pre-revolution times. It should be noted, however, that in 1867, the Austro-Hungarian settlement, when de facto Hungary became an equal partner to Austria, and the two countries were joined by a sovereign, an army, and foreign policy. By means of an internal settlement in Hungary, Croatia has obtained, on the basis of so-called. Croatian-Hungarian Settlement (1868) partial internal, ecclesiastical, school and judicial autonomy within (Great) Hungary. Croatia is at the forefront. The Hungarian Revolution did not evolve according to the ideas of Hungarian politicians and the revolution was suppressed in the summer of 1849 by Russian troops. The Imperial Court in Vienna subsequently tried to pacify individual national movements. Slovaks and Croats, after the revolution, did not achieve greater concessions from the imperial court in Vienna, and in essence, the state of affairs returned to pre-revolution times. It should be noted, however, that in 1867, the Austro-Hungarian settlement, when de facto Hungary became an equal partner to Austria, and the two countries were joined by a sovereign, an army, and foreign policy. By means of an internal settlement in Hungary, Croatia has obtained, on the basis of so-called. Croatian-Hungarian Compromise (1868) partial internal, ecclesiastical, school and judicial autonomy within Hungary. At the head of Croatia standing Ban. Relations between the Slovaks and the Croats show a close connection in the field of culture, military cooperation and common national interests. The Slovak national movement was fragile and sought suitable allies for its political and national goals. Unlike the cooperation from the Czech environment, the Croatian and South Slavic environment was more similar to that of the Slovaks in Hungary. With certain differences, both movements have been complemented and cooperated in many areas. Failure to meet the ambitions of the Slovaks and Croats resulted in the decades-long after the revolution, when both nations fought for survival. These relationships are to be found in our Slovak cultural context. The contribution also aims to point out the South Slavic orientation of Slovak national representatives and seeks to raise issues for further research in the field of Slovak and Croatian relations. Nearly thousands of years of history, the similarity of languages and cultures show us the period of the first half of the 19th century, as should the current cooperation of both nations

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SOCIAL WORKERS 'ROLE IN THE GROUP SOCIAL WORK

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Abstract: *The paper analyzes the work of a social worker in a group, while briefly describing the researched issue in the introduction. We pay particular attention to the implementation phase of research using a qualitative research strategy. In our research, we have focused on one research question that we analyze and evaluate through 3 questions. When processing this paper, we were based on statements from 6 social workers who work in Ružomberok and work with a group as part of their work. These are social workers from the Low-threshold Daily Center for Children and Family and social workers from the Office of Labor, Social Affairs and Family, from the Department of Counseling and Education. We have processed the data of our participants by means of open coding into a table, which we further characterize.*

Keywords: *social worker, social group work*

1. Introduction

The social worker plays a very important role in all kinds of social groups (except self-help). Its role is to mobilize all the inner strengths of the clients and influence the group so that its members develop their relationships with other members of the group adequately. According to Kaiserova [1], the social worker's personality is a very important tool in building relationships within the group. According to her, every expert working with the group should have certain qualities that include empathy, spontaneity, creativity, flexibility, congruence, discipline, acceptance. The social worker should also be able to express feelings, show interest in others, or be able to work in a team. About social work with a group can be said that it is one of the most effective ways to work with a client, but in Lovašova's opinion [2] it requires relatively high demands from a social worker. If a social worker wants to work with a group, he or she should have sufficient training and experience with socio-psychological and self-cognitive training. Nowadays, such training is also offered to university students. According to Mátel and Vasilesca [3], we consider a university degree in the field of social work for the initial qualifications that the social worker working in Slovakia should have at their disposal. According to these authors, this education should be complemented by appropriate training for group social work. According to the Act on Social Work [4] we consider a social worker to be a person who has completed a second university degree because a first-degree person is considered an assistant to a social worker.

2. Methods results

Poverty We have chosen a qualitative research strategy for the processing of our contribution, on the basis of which we have chosen a deliberate selection of participants who are part of the research sample. As one of the main criteria in the selection of the research sample, we considered addressing social workers who use not only work with an individual but also work with a group in their job. In our research, we collaborated with 6 participants who were familiar with the research goal at the first meeting. We asked social workers from the Low-threshold Daily Center for the Children and Family (LDCCF) in Ružomberok and social workers from the counseling and education department who work at the Office of Labor, Social Affairs and Family in Ružomberok. Unfortunately, one participant from the Low-threshold Daily Center for Children and Family rejected participation and collaboration in research. As a data collection method, we used an individual structured interview, ensuring the privacy of our participants through anonymous identity. During the interview, we asked our participants 3 questions.

RQ: What role does a social worker working with a group play?

- OR no. 1: Who can lead a group session and what conditions must it meet?
- OR no. 2: What is the scope of your work in the facility? OR no.
- 3: What methods and techniques do you use when working with a group?

The individual responses we received during the collection of information were processed through open coding, creating individual categories, subcategories, and codes. Participants refused the use of audio recording for reasons of identity and privacy.

3. Results

The research sample consisted of these participants:

Table 1 list of participants

Participant (P1)	50 years; Education: Social work and social pedagogy; Practice in the social sphere of 26 years
Participant (P2)	38 years; Education: Andragogy, Rigorous Exam in this field; Practice 12 years at the OLSAF as a consultant at the Department of counseling and in the past, besides a job, as an external teacher at the Department of social work
Participant (P3)	40 years; Education: Social work, Practice:5 years

		techniques	Getting to know strengths and weaknesses
			Exercises
			Evaluation and development centers
			Competency balance
			Reflection
			Training
			Role-play
			Self-reflection
			Activating activities
			Situational models
			Experiential techniques and games
			Educational and recreational stays
		Cooperation	Institutions

Source: Custom elaboration, 2019.

By the first question we wanted to find out who could actually lead a group session and what conditions they must meet. According to P2, it should be mainly "an expert in working with people, he should have the right education and, above all, experience." From the participants' responses, we find that other participants in the interview agree with the essence of this statement, even though they are participants from two different facilities. Therefore, regardless of what group the social worker is working with, it is really important for the work to be done that the person has the necessary education and some practice in the field. A more detailed explanation of what is meant by the terms "education" and "work experience" at the Office of Labor, Social Affairs and Family brings us P1, explaining that "practice means working experience in providing expert advice and education that enables professional guidance services. E.g. the field of social work in public administration, social work, social pedagogy, and many others in every area of life is provided with professional counseling, not just social work." By contrast, P6 explains that in the LDCCF would be ideal if professionals were "sociological therapist, social work is sufficient - with the experience of group leadership, special or social educator - etopedist, he or she should like people." Based on the participants' answers above, we concluded that a person who wants to work with a client through social work does not have to have only completed education in the field of social work. Participants cited social work in public administration, social pedagogy and special pedagogy as admissible fields. Likewise, P5 states that it should be a person with a Master´s degree, but in the conversation, this participant was also deeply concerned about the personality of the worker and notes that the person who works with the group should be particularly "blameless, with some skills like empathy, active listening to clients, willingness to help, secrecy, credibility, sense of humor to relieve unpleasant situations, knowing how to motivate clients positively, general and professional social knowledge, etc."

We were also interested in what is the job of social workers in the facilities we worked with. From the title

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		as an educator at the Nursing Service Station for Children and since 2004 she has been working as a consultant at the OLSAF.
Participant (P4)		24 years; Education: Business Economics and Management; Experience: None, since January 2018 works as a consultant for a project at the OLSAF
Participant (P5)		45 years; Education: Pedagogy, Experience: Working with mentally and physically disabled children; Job Position: Expert Advisor
Participant (P6)		34 years; Education: social worker; Experience: 11 years of working with young people, families and children, volunteer experience while studying with groups of problematic children and in chilren´s camps.

Source: Custom elaboration, 2019.

By the research question "What role does a social worker working with a group play?" we tried to analyze the role of the social worker and his job description in the facility. We asked participants three questions to find out the necessary facts. Subsequently, we developed the participants' statements by means of open coding into a table titled "The role of the social worker in the group." In the table you can find 34 codes, 11 subcategories and 2 categories. Then we created a central category called "Social Work with a Group."

Table 2 The role of the social worker in the group

Central Category	Categories	Subcategories	Codes
Social work with groups	Working conditions	Experience	Work experience
		Education	Social area
			University – 2nd degree
		Expert	Work with people
			Counseling
			Social therapist
			Etopedist
		Obligation	Secrecy
			Integrity
			Credibility
		Ability	Empathy
			Active listening
			Will to help
			Sense of humor
			Motivating clients
			Loving people
			Team leading
	Scope of employment	Counseling	Group counseling
			Individual counseling
			Professional counseling
			Preventive counselling
		Education	Health education assessment
			Skills assessment
			Work experience assessment
			Motivation
			Guidance
		Documentation	Provided service
		Searching threatened children	Class team
			Field social work
			Intervention work
		Methods and	Interview

"Department of Counseling and Education" at Office of Labor, Social Affairs and Family we can see that the main content of this facility is the provision of social counseling and education of job seekers. However, the staff of this department has, on the basis of interviews, brought us closer to what this work entails. The main focus of this facility's activities was summarized by P5, who says that they are mainly "providing group and individual counseling services for long-term unemployed job seekers; assessing the job experience, skills and capabilities of the jobseeker; guiding and motivating jobseekers to more active in the labor market. " The essence of the response was repeated with other participants in the facility, so we do not provide answers from other participants. However, some of the participants mentioned other activities of this department in addition to the above activities. P4 says that his job also includes "cooperation with the relevant departments of the Office and the keeping of file documentation related to the provision of advisory services." P3 mentioned to us during the interview that also preventive counseling at primary and secondary schools is part of his job. P6 says that the LDCCF provides "individual and group social counseling, preventive and intervention work with class teams, low-threshold field social work, search for threatened children, educational and recreational stays." the social worker, the provision of individual and group counseling is a necessary part of every single social service facility. P1 explains that "in every area of life, professional counseling is provided." Furthermore, we find that social workers use preventive counseling in their work, especially in schools, which we appreciate very positively, as we believe that by already careful prevention in a young person it is possible to prevent or to prevent the emergence of various social problems in adulthood.

The last area of the RQ was to analyze the use of methods and techniques at work. We find out that the employees are mainly guided by the methodological guide and use mainly the method of interviewing, getting to know the strengths and weaknesses, career counseling, balance of competencies, reflection, training, role playing, self-reflection, model situations, experiential techniques and various games.

4. Conclusions

The current situation places high demands on social workers in all areas of social work. Experts are required to acquire the skills to work with the group alongside their expertise, leading them to continually improve their ability to understand individual clients' problems and perceive their lives in different contexts. The mission of social workers is to provide all members of the group with appropriate professional assistance, regardless of their gender, age or life situation in which they find themselves. We can say that it helps them to solve social, psychological, economic, social and family problems. He diagnoses social problems, plans intervention, performs social therapy and assessment, communicates with the client, positively influences and motivates him in solving

his social problems. Our attention was paid to the role of social worker in working with the group. In our research, we have chosen a qualitative research strategy, and our goal was to find out what role a social worker plays in working with a group. Six participants participated in our research and were asked three questions. We note that the individual responses of the participants agree with knowledge we have in the introduction of our paper. Therefore, if one wants to do social work with a group, one must have the appropriate education and work experience. We were also interested in the content of the work of the participants in the selected subjects. We find that the main focus of the participants is the provision of individual and group counseling, co-operation with the subject's relevant departments and the keeping of records and preventive activities in schools. We also considered it important to find out what methods and techniques are used by participants to work with the group. We find that LDCCF uses mainly group interviews, model situations, experiential techniques and games. On the other hand, they use at the Department of Counseling and Education mainly learning about strengths and weaknesses, career counseling, balance of competencies, reflection, training, role playing, self-reflection, activating activities and also the interview method.

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