

EDUCATION OF FOREIGN LANGUAGES EXAMINED USING THE SEMANTIC DIFFERENTIAL

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ABSTRACT

Aim. The main aim of our project is to find out the opinions of selected groups of respondents about the teaching of foreign languages.

Methods. For verification, we chose to apply the research method of semantic differential and matched it in relation to psycholinguistics. Semantic differential is a research method aimed at verifying how respondents perceive concepts. We focused on verifying what the term language teaching evokes in three different groups of respondents (pupils/students, parents, and teachers). 16 bipolar terms were chosen, which the respondents had to evaluate on a scale of 1 to 7. The given term was evaluated more positively, the smaller the value of the number was. Didactic research was attended by 231 respondents who were divided into three basic groups: teacher, parent, and pupil/student. Then, the experimentally obtained data was statistically analysed and compared using post-hoc tests to determine which of the groups showed any results of significance.

Results. Of the used terms, only 3 were statistically significant: contemporary - outdated, valuable - worthless and cheerful- sad. The statistically significant difference was manifested in the two groups of pupils/students and parents. Pupils/students evaluated the teaching of foreign languages as contemporary, valuable, and fun. By contrast, parents are inclined to answer that teaching foreign languages is outdated, less valuable and sad.

Conclusion. The results evoke the implementation of new innovative based methods, for example, on integrated teaching (CLIL method) or new activating teaching methods.

Keywords: teaching, foreign languages, semantic differential, psycholinguistics, didactic research

INTRODUCTION

Knowledge of a foreign language is among the basic key competences of every person in the European Union. The reason is not only the fact that it makes travelling and getting to know countries easier, but precisely because learning foreign languages also means getting to know and adopting the customs of other nations. Closely related to this is the development of social and cultural knowledge, such as understanding, tolerance and respect for each other, initially perceived differences (Králik et al., 2022; Pavliková et al., 2023).

In a wider context, language can be characterised as a society-wide abstract system used for understanding and cognition. It is a thinking tool, a system of signs, a basic means of transmitting information, a real communication system that works in specific conditions. Speech is the concrete realisation of this abstract system in a concrete expression. In a universal sense, it is a psychophysical ability, given only to man, which has a biological essence. The science that studies language is called linguistics. Linguistics is divided into several fields. We focused on the field of psycholinguistics. Psycholinguistics is linguistic consciousness, interpreted as a set of images of consciousness, which are formed and visualised by means of vocabulary (Azizi et al., 2022).

Our aspiration is connected with the assumption that words - terms can be placed in a certain psychological (semantic) space, or space of meaning of words. We have to realise that, based on our own past experience, we download words and concepts from this already acquired database, according to the meaning we attribute to them based on this lived experience. We can verify these facts with the use of the semantic differential method which we have chosen as our research tool. In it, the connection of psycholinguistics, the psychology of perception and the psychology of individual consciousness is inoculated, and at the same time we distinguish cognitive, emotional, and conative aspects in each attitude (Handzilevska et al., 2023; Hlad et al., 2022; Maršálová & Mikšik, 1990).

The breakthrough period of the millennium, which we are now in, is characterised by an effort to change approaches and methods of teaching not only foreign languages, so that education becomes highly motivating and also the most effective. Slovakia is also one of the countries in which there is no lack of emphasis on the teaching of foreign languages in education. The relationship to a foreign language can affect its concept of teaching, the chosen procedures, teaching methods and forms. In order to choose a suitable teaching strategy, it is advisable to experimentally verify the attitudes of individuals towards language teaching (Khonamri et al., 2020). Subsequently, these starting points lead to the search for new, more modern education systems.

LANGUAGE EDUCATION

The history of teaching foreign languages in Slovakia dates back to the pre-Second World War period when foreign languages were taught only in grammar schools. The goal of instruction was for students to understand oral expressions in a foreign language regarding everyday matters, be able to read more complex texts with the help of a dictionary, master spelling, and acquire lexical knowledge. In the post-war period, Russian became the mandatory foreign language, and other foreign languages experienced a decline. During the educational reforms in 1959 and 1961, the number of hours dedicated to the second foreign language also increased in primary schools. The premise was that the primary function of language is its communicative function. Foreign language instruction began in the first stage of primary education in the 1960s, and in 1977, new curriculum guidelines were introduced for grammar schools, aiming to respect a primarily communicative approach to language acquisition. However, after 1989 the entire innovation process was interrupted. The curriculum for foreign languages and the didactics of foreign languages were ignored as insignificant aspects of foreign language teacher training. In the last decade of the previous century, the current state of foreign language instruction, the position of foreign language teachers, and the need for further education were ana-

lysed and assessed. A new concept of foreign language teaching in schools emerged, with the underlying philosophy of promoting the development of a multicultural European society, which presupposes achieving communicative competencies in at least two foreign languages. The general objective is to ensure the attainment of communication levels B1/B2 according to the Common European Framework of Reference for Languages in the first foreign language (www.coe.int), and levels A2/B1 in the second foreign language for all students within the educational system in Slovakia by the end of secondary school (Králik, 2023; Pekarovičová, 2004; Sedláková, 2022; Tandlichová, 2008; Tandlichová, 2009).

Our present era is characterised by innovation and a new way of life and work. Change is also reflected in the processes of everyday activities (Sirotkin et al., 2023). Systematic changes are also affecting education, where previously isolated subjects are becoming integrated areas of learning (Mehisto et al., 2008; Tokárová, 2019). One such educational approach is the merging of language teaching with content from other disciplines. Often, the fact that the teacher's work involves a range of precise operations in which the student's mind is the subject and the field of action is overlooked (Polok, 2014). The reality shows us that high-quality knowledge of a foreign language is still a missing key competence. The question of where the error lies in the system, which parameter is not properly set, and why the results are unsatisfactory despite societal demands and favourable conditions for motivation becomes all the more urgent (Butašová, 2013; Haskova et al., 2021).

Linguistics examines and explores language from various perspectives using diverse methodological approaches. Linguistics is divided into numerous subfields based on the language or its components that are the subject of study. It also intersects with other disciplines such as psychology, neurology, and sociology, giving rise to new subdisciplines within the field, such as psycholinguistics, neurolinguistics, and sociolinguistics (Kvapil & Siposova, 2020; Petrovič, 2007). Linguistics is considered the foundation for the development of other important fields.

Psycholinguistics combines methods and theories from psychology and linguistics. It aims to evaluate reality with a foundation in language rules and processes. It seeks to connect text processing with deeper expressive processes of construction and interpretation of messages. The linguistic consciousness and the mental representations within it are hidden to the researcher and can only be accessed through an associative experimental methodology, which may reveal the associations an individual has based on their previous experience (Balandina & Peredrienko, 2019).

Words - concepts (products of human thinking) can be placed within a psychological (semantic) space or a space of word meaning. In this way, we can create our own database. After experiencing an event, we retrieve words and concepts from this acquired database, according to the meaning we attribute to them based on our lived experiences. These experiences can be verified using the method of semantic differential.

METHOD AND METHODOLOGY

The Semantic Differential is considered a method for measuring attitudes and is often classified as a psycho-semantic method (Chráska, 2007; Miovský, 2006).

The technique of Semantic Differential is most commonly attributed to Charles E. Osgood, who, along with his colleagues George J. Suci and Percy H. Tannenbaum, published a comprehensive work on the methodology of the Semantic Differential in their 1957 publication *The Measurement of Meaning* (Osgood et al., 1957).

The research method of semantic differential involves expressing attitudes towards a selected goal, fact, activity, or object. David Krech et al. (1968) defines that attitudes are understood as “stable systems of positive or negative evaluations, emotional feelings, and tendencies to act for or against social objects” (p. 170), and within each attitude, we can distinguish cognitive (evaluative), emotional (affective), and conative (tendency to act towards the object) aspects. In this sense, the Semantic Differential method is considered deeper compared to a questionnaire, as respondents are not aware of the level of data processing, and therefore, they cannot consciously adjust the results they provide along with their answers. On the other hand, due to its principle, the semantic differential cannot capture the conative aspect of attitudes. Therefore, some authors are more cautious regarding what the semantic differential actually measures and refer to it as measuring meaning, for example (Hamadej et al., 2016; Nakonečný, 1997).

The semantic differential is based on placing a concept representing a particular phenomenon on scales in a multidimensional semantic space. By identifying factors in these scales (whose poles consist of pairs of contrasting adjectives), we can position the observed concepts within the created coordinates. The semantic differential is a synthesis of scaling and associational methods, as it allows for measuring the connotative meanings of concepts in their individual, psychological sense (Szabó et al., 2022). It enables researchers to penetrate the inner world of the individuals under study and obtain highly individualised information that can be further analysed statistically and independently verified. It combines the characteristics of both quantitative and qualitative research approaches, as it allows for studying both individuals and groups of respondents, exploring shared perceptions of selected concepts, and tracking changes in these perceptions over time. According to Jiří Pelikán (2004), the advantage of the semantic differential lies in its “deeper penetration into the individual understanding of the meaning of specific concepts and its theoretical versatility: it can yield useful results in various social sciences or disciplines, such as general pedagogy, didactics, museum education, and school management” (p. 149).

Words are the fundamental building entities with which the semantic differential method operates. In an effort to achieve the greatest possible understanding in their field, scientists introduce precise definitions for their concepts, aiming for clarity that is accessible to every participant. They establish their own scientific language based on several foundational axioms, ensuring that each individual associates the given concept with exactly what it entails and avoiding any unintended shift in meaning. The goal is to prevent the concept from being inadvertently displaced to a context where it would acquire an entirely different meaning.

“It is a well-known fact that when multiple evaluators assess a given concept, each of them perceives it relatively (sometimes even significantly) differently. Besides the shared cultural meaning, each concept has additional secondary meanings that characterise individual evaluators” (Chráska, 2007, p. 215). The author Martina Kosturková (2015) draws inspiration from the work of Miroslav Chráska (2007) within the framework of the semantic differential method. She further adds that

in the semantic differential, individual meanings of concepts are measured using a certain number of rating scales (commonly seven-point scales are used). Respondents record their opinion about the evaluated object by selecting a specific point on these scales. From a practical perspective, this involves pairs of antonymous adjectives to which respondents assign values ranging from 1 to 7. (Kosturková, 2015, p. 299)

How do we primarily understand the meanings of words? We encode the meanings of words into memory through concepts or ideas (mental representations). When we think of words as concepts, they become an efficient way for us to manage information that has some relationship to each other.

Originally, the semantic differential method was created to determine the hidden meaning of a word.

This data collection method allows for an interesting way to measure hidden, individual, psychological meanings of concepts that are relevant to researchers.

Psychosemantic methods and techniques, by their attempt to understand the individual meaning of words, usually penetrate deeper into the thinking and feeling of the observed person compared to methods and techniques such as exploratory ones, especially in cases where it involves not only general information but information that has an emotional aspect. The understanding of the sense that an individual attribute to certain words is simultaneously an insight into the inner world of the respondents. (Pelikán, 2004, p. 146)

The applicability of the semantic differential method in the solving of different research and didactic problems is wide-spectral. It has a high reliability rate and the obtained results have an adequate reliability rate. It is also easily adapted to current research requirements. The processing of

data obtained through this method is fast and efficient due to advanced information technology allowing for various uses and analyses (Budayová et al., 2022).

The semantic differential method, however, is not a universal and problem-free method. The apparent contradiction is often caused by confusing ordinary scales with semantic differentials and underestimating the relatively wide range of risks associated with their use (Bačiková & Jánovská, 2018).

The semantic differential operates on the principle of evaluating attitudes through scales (most commonly seven-point scales) where bipolar aspects anchoring these scales are utilised. By using carefully selected pairs of adjectives, we may determine the respondent's attitude towards a given situation (Svoboda, 2001). This allows us to obtain individualised information that can be further analysed. It enables the study of both individuals and groups of respondents, exploring shared perceptions of selected concepts and their evolution over time. Simply put, it is a method for assessing the attitude of the participants towards presented phenomena. Its significant advantages include easy administration and quick evaluation (Hewstone & Stroebe, 2006).

IMPLEMENTATION OF RESEARCH

We applied the research method of semantic differential to a study aimed at exploring how pupils/students, parents, and teachers perceive the concept of language learning, that is, what associations the selected term evokes in them. Our research instrument consisted of 16 terms along with their opposites. The respondents were asked to assign to a term a value between 1 and 7. The lower the numeric value, the more positive rating of the term.

The questionnaire was distributed for the first time in Slovakia and its reliability was verified by using Cronbach's alpha coefficient. For the entire questionnaire Cronbach's $\alpha = 0,904$. For the category of teachers $\alpha = 0,873$, parents $\alpha = 0,909$ and pupils/students $\alpha = 0,906$.

The research was conducted in 2022. The questionnaire was distributed in printed form. A total of 231 respondents participated in the study, who were divided into three main groups: teachers (52 respondents), parents (96), and pupils/students (83).

RESULTS AND DISCUSSION

We have selected terms that respondents rated as follows (Table 1).

Table 1
Evaluation of concept of language learning

Scales	AVERAGE				
	Teacher	Parent	Pupil/ student	H - stat	p-value
<i>useful – pointless</i>	2,10	1,97	1,69	,327	,810
<i>effective – ineffective</i>	2,60	2,61	2,34	1,637	,419
<i>simple – complex</i>	4,52	4,44	4,63	,982	,598
<i>contemporary – outdated</i>	3,37	3,30	2,58	10,901	,003
<i>valuable – worthless</i>	2,65	2,91	2,02	12,653	,001
<i>various – boring</i>	3,13	3,45	3,07	3,368	,174
<i>active – passive</i>	3,38	3,48	3,05	3,561	,156
<i>in-depth – shallow</i>	3,40	3,51	3,29	2,436	,274
<i>natural – unnatural</i>	3,90	3,81	3,57	1,953	,360
<i>definite – disputed</i>	3,38	3,61	3,49	1,213	,525
<i>clear – confusing</i>	3,56	3,66	3,66	,428	,798
<i>easy – difficult</i>	4,31	4,41	4,46	,282	,861
<i>organised – chaotic</i>	3,77	3,81	3,61	2,121	,327
<i>legible – illegible</i>	3,46	3,52	3,28	2,915	,213
<i>cheerful – sad</i>	3,42	3,72	3,17	9,621	,006
<i>strong – feeble</i>	3,37	3,44	3,18	2,377	,281

Source. Own research.

From the analysis of experimentally obtained data, we can result that regarding averages in this study, the most positively rated aspect was the usefulness of language, where teachers, parents, and students rated it on average below 2.10. The student rated the usefulness at 1.69, which was clearly a positive evaluation and aligns with the current philosophy in our society regarding the need to enhance competence in foreign languages. The highest average value, indicating the most negative rating, was given to the pair of terms simple – complex, where teachers, parents, and students agreed that language learning is unequivocally complex, which corresponds to the statement that the second most negatively rated pair was easy – difficult (4.46). We can conclude that acquiring foreign languages in Slovakia is perceived as challenging.

For the other antonyms, teachers, parents, and students rated them approximately in the middle of the scale.

A statistically significant difference, as indicated by the p-value, was found in only three scales: contemporary – outdated, valuable – worthless, and cheerful – sad. For these three items, a different statistical method was employed, and post-hoc tests were conducted to determine which pairs of groups were significant (Tables 2 – 10).

The parents' results (3.3) were significantly different from the students' results (2.58), which can be seen in the statistical evaluation. Students rated the foreign language as more contemporary, while parents perceived it as more out-

dated (Tables 2 and 3). The reason for this difference in perception is likely due to parents evaluating the language based on their own school experiences rather than considering their children's current experiences or relying solely on second-hand information. According to them in schools there is no need to change the approach towards teaching of languages. According to the Pairwise Mann-Whitney Test (Table 4), there is also a significant difference between teachers (3.37) and students (2.58). Once again, students perceive the foreign language as more contemporary compared to teachers. It is probable that teachers hold the belief that there have been no changes in the teaching methods and approaches to language education, as society may be skeptical about introducing new teaching methods. They may perceive institutional innovation only in terms of increased teaching hours or the ability to choose from multiple textbooks offered. The teaching strategies, practices, and methods remain conventional.

Table 2*DUNN'S TEST of contemporary – outdated scale*

CONTEMPORARY – OUTDATED				
Category	R-sum	Number	R-mean	z-crit
teacher	6454,5	52	124,125	
parent	12313	96	128,2604	
pupil/student	8028,5	83	96,72892	
		231		1,959964

Source. Own research.

Table 3*D TEST of contemporary – outdated scale*

CONTEMPORARY – OUTDATED						
Category 1	Category 2	R-mean	std err	z-stat	R-crit	p-value
teacher	parent	4,135417	11,28476	,36646	22,11772	,714022
teacher	pupil/student	27,39608	11,59111	2,363543	22,71815	,018101
parent	pupil/student	31,5315	9,823146	3,209919	19,25301	,001328

Source. Own research.

Table 4*Pairwise Mann-Whitney test of contemporary – outdated scale*

CONTEMPORARY – OUTDATED			
Category 1	Category 2	p-value	mean
teacher	parent	,804063	,063301
teacher	pupil/student	,025477	,787071
parent	pupil/student	,000979	,72377

Source. Own research.

In the “valuable - worthless” dimension, there was a difference between the group of parents (2.91) and students (2.02) (Tables 5 – 7). Students rated foreign language as more valuable compared to parents. This finding may be related to the fact that current youth are being raised as part of the European Union, where there is a natural inclination towards travelling and exploring the world and other countries. They realise that the knowledge of languages improves their chances for a better future employment.

Table 5*DUNN's TEST of valuable – worthless scale*

VALUABLE – WORTHLESS				
<i>Category</i>	<i>R-sum</i>	<i>Number</i>	<i>R-mean</i>	<i>z-crit</i>
<i>teacher</i>	6149	52	118,25	
<i>parent</i>	12654,5	96	131,8177	
<i>pupil/student</i>	7992,5	83	96,29518	
		231		1,959964

Source. Own research.

Table 6*D TEST of valuable – worthless scale*

VALUABLE – WORTHLESS						
<i>Category1</i>	<i>Category 2</i>	<i>R-mean</i>	<i>std err</i>	<i>z-stat</i>	<i>R-crit</i>	<i>p-value</i>
<i>teacher</i>	<i>parent</i>	13,56771	11,01411	1,231848	21,58726	,218006
<i>teacher</i>	<i>pupil/student</i>	21,95482	11,31311	1,940653	22,17329	,0523
<i>parent</i>	<i>pupil/student</i>	35,52253	9,587551	3,705068	18,79125	,000211

Source. Own research.

Table 7*Pairwise Mann-Whitney test of valuable – worthless scale*

VALUABLE – WORTHLESS			
<i>Category 1</i>	<i>Category 2</i>	<i>p – value</i>	<i>mean</i>
<i>teacher</i>	<i>parent</i>	,264143	,252404
<i>teacher</i>	<i>pupil/student</i>	,065788	,62975
<i>parent</i>	<i>pupil/student</i>	,000155	,882154

Source. Own research.

The next pair in which a significant difference was observed during the statistical analysis is “cheerful - sad,” and this difference is between the group of parents (3.72) and students (3.17) (Tables 8 – 10). Students perceive the foreign language as more cheerful compared to parents.

Table 8
DUNN's TEST of cheerful – sad scale

Category	CHEERFUL – SAD			
	R-sum	Number	R-mean	z-crit
<i>teacher</i>	5819	52	111,9038	
<i>parent</i>	12615	96	131,4063	
<i>pupil/student</i>	8362	83	100,747	
		231		1,959964

Source. Own research.

Table 9
D TEST of cheerful – sad scale

		CHEERFUL – SAD				
Category 1	Category 2	R-mean	std err	z-stat	R-crit	p-value
<i>teacher</i>	<i>parent</i>	19,5024	11,0691	1,761878	21,69504	,07809
<i>teacher</i>	<i>pupil/student</i>	11,15686	11,36959	,981289	22,28399	,32645
<i>parent</i>	<i>pupil/student</i>	30,65926	9,635419	3,181933	18,88507	,001463

Source. Own research.

Table 10
Pairwise Mann-Whitney test of cheerful – sad scale

		CHEERFUL – SAD	
Category 1	Category 2	p-value	mean
<i>teacher</i>	<i>parent</i>	,095295	,295673
<i>teacher</i>	<i>pupil/student</i>	,395424	,254402
<i>parent</i>	<i>pupil/student</i>	,001031	,550075

Source. Own research.

It is necessary to realise that learning is a psychological phenomenon involving both cognitive processes and emotions. A proper understanding of the essence of learning compels us to consider them as mutually coexisting units with a strong interconnection. Emotions have a strong influence on cognitive processes and simultaneously interact with other internal factors of learning, such as motivation, memory, and the ability to concentrate. Emotions affect the process of learning foreign languages in various ways, depending on whether the emotions are positive or negative (Smoleňová, 2017). Positive emotions help expand thinking, generate new ideas, and serve to increase motivation. From the aforementioned, it is evident that better grades for students have a positive impact on their relationship with learning foreign languages (Khonamri et al., 2021; Khonamri et al., 2022).

CONCLUSION

Language as a tool of thinking and communication serves people to interact and explore in specific conditions. It is a system of signs which are the fundamental means of transmitting information through speech. Speech is the concrete realisation of this abstract system in specific expression, and language in the universal sense is a psycho-physical ability unique to humans. Knowledge and mastery of foreign languages have always been one of the basic characteristics of education. The main goal of language teaching is to achieve the highest possible effectiveness and efficiency in communication.

The method and methodology of language teaching has been the focus of our research. During the research implementation and subsequent experimental analysis, facts were revealed that point to the absence of new, modern, activating teaching methods and approaches in making foreign languages accessible. This perspective was especially evident among parents but was also observed among teachers. In light of the results obtained, there is an evident need for innovation in foreign language teaching and the integration of new teaching methods. One such method could be the Content and Language Integrated Learning (CLIL) method. CLIL is recognised as a philosophy and methodology that aims to achieve multiple objectives by integrating language and non-language subjects, thus providing space for knowledge acquisition (Kovacikova, 2019). The benefits include a safe and rich learning environment, authenticity, active learning, and collaboration (Mehisto et al., 2008). This method would help students and parents perceive foreign languages not only as more contemporary but also enable students to gain more knowledge and skills in the taught language. Students would also achieve better results, improve their communication in the foreign language, expand their vocabulary, and gain more confidence in using the foreign language in a group setting.

“It is the teacher, based on the level of their own awareness of the taught language, who is capable of influencing the teaching and learning of students to such an extent that they become less complicated and more effective” (Polok, 2014, p. 30).

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