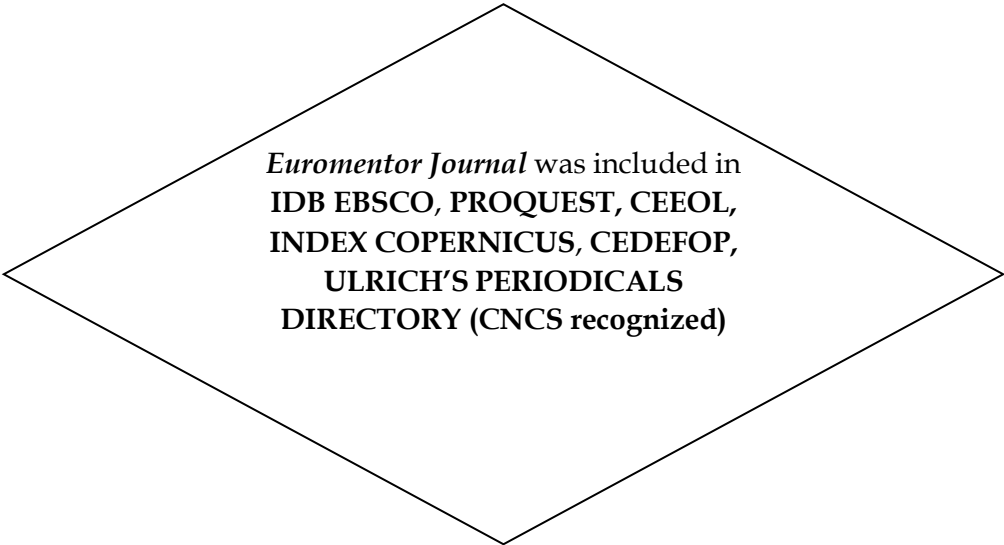


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THE RELATIONSHIP BETWEEN "FAKE NEWS" INDUCED STIMULI, EMOTIONS AND UNCERTAINTY TOLERANCE IN A GROUP OF STUDENTS

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Abstract: *"Fake news" information is increasingly present in social media, turning into stressful situations, and some people can become dysfunctional in their social, professional and family environments due to the emotional states induced by it. Through the present study we aim to highlight the relationship between emotions induced by "fake news" and the role of uncertainty tolerance in the management of emotional states in some people involved simultaneously in learning activities (students) and professional activities. The study provides scientifically validated evidence on how some people deal with news content, highlighting both the direct role of fake news in generating dysfunctional negative emotions and the mitigating role of the psychological characteristic called uncertainty intolerance in stimulus processing, so that we can predict which people show a certain ability to discern between news with aberrant content and news with fake news content, as well as some adaptive versus maladaptive response behaviours.*

Keywords: *"fake news"; emotional states; tolerance vs. intolerance of uncertainty; dysfunctional negative emotions; anxiety.*

1. General theoretical framework

1.1. Argumentation for the choice of topic

The presence of each one of us more and more in the virtual environment can be a positive fact, but how do we know how to select the information we need, which is authentic and which is useful for our actions, how do we protect ourselves from manipulative or false information and, above all, what will our behaviours be in terms of action, whether we refer to those specific to the social, family or professional environment?

To highlight the power of information penetration at the consumer level of social media, we bring to attention some findings highlighted in a

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study on the design and implementation of a prevention/ psychoeducation campaign during the "COVID-19" pandemic. Thus, Marineanu & Prisăcaru¹ stated that within the mentioned activities, some multimedia psychological products were developed and promoted, such as POSTERS with various contents, from solutions focused on anxiety management, to normalization of emotional reactions, as well as optimal management of relationships with children, and by posting and publicizing them on a webpage of an institution, then by taking them on Facebook and Youtube social media pages, the impact among the target population registered a number of 56,000 views in a very short time.

In the situation presented above, the contents promoted through psychological multimedia products were under control and had positive effects, being managed by specialists trained to provide intervention in psychological crisis situations, but not all situations are similar.

In this regard, for example, we bring to your attention the information that *"in Romania, a few years ago, the image of a bank was damaged after rumours appeared on the market that it did not have cash, people storming ATMs and counters to withdraw money from current accounts or deposits"* ²

The terms "fake news" and "false news" are often used synonymously in everyday language, but the essential difference lies in the intention behind them, namely: fake news narratives are circulated by an organisation or a state with the aim of creating confusion and generating social tension, while false news does not originate from a state's ideology or strategy, and in some cases has no intention of manipulation.³

1.2. The theoretical framework on which the research is based

In order to explain the way of functional reporting to situations of confrontation with "fake news" we will guide the elaboration of the study using as theoretical foundation the conceptual model supported by the cognitive-behavioural ABC Model.

Regarding the contribution of the ABC cognitive-behavioral model in explaining how each of us acts when we are in the situation of analyzing

¹ Marineanu & Prisăcaru, *Forme de asigurare a asistenței psihologice în Armata României, în contextul pandemiei Covid-19 [Forms of Psychological Assistance in the Romanian Army in the Context of the Covid-19 Pandemic]*, in *Revista de Psihologie Militară [Military Psychology Journal]*, vol. 1/2021, Bucharest, p. 92-95.

² <https://start-up.ro/start-up.ro>, accessed on 05.01.2022, hour 09.34.

³ www.veridica.ro/stiri-false, accessed on 17.11.2022, hour 15:35.

the content of some information, inspired by David⁴, we can appreciate that the psychic apparatus will be involved, first of all, through the cognitive level with its two components, i.e. rational vs. irrational thinking, in order to evaluate and interpret the activating events transmitted through the received stimuli, i.e. the content of news in general and, especially, of "fake news".

In turn, cognitions train the affective level, and then the action level is trained, conditioning the emergence of response behaviours that can be emotional, action and physiological.

Cognitions are found in the inner monologue and are often expressed in the form of automatic thoughts, which can escape conscious control and are frequently automatically, unconsciously associated with triggering events, generating the false appearance that events are directly responsible for consequences, in our case "fake news".

Thus, irrational cognitions can be recognized in terms of maladaptive action responses and rational cognitions in terms of context-adaptive actions, thus explaining the difference between people who receive, process information content, including "fake news", and act in a dysfunctional or optimal manner.

In the psychological assessment of personality characteristics used in the study, as assessed by Ciorbea⁵ we must aim to cover the need to predict the future behaviors of the persons evaluated, by measuring and quantifying the psychological characteristics of the present, using standardized methods and techniques that contribute to improving the validity of the results obtained.

2. Methodological framework

2.1. Research objectives

The specific objectives of the research are:

- *the first specific objective* aims to analyze how the people in the study group receive, select, process, interpret and elaborate their response behaviors with reference to some affective processes induced by "fake news" information;

⁴ D. David, *Tratat de psihoterapii cognitive și comportamentale [Treatise on Cognitive and Behavioral Psychotherapies]*, Iași, Polirom Publishing House, 2012, p. 125-130.

⁵ I. Ciorbea, coord., *Evaluarea psihologică aplicată. Repere teoretice și practice [Applied Psychological Assessment. Theoretical and Practical Guidelines]*, Bucharest, Trei Publishing House, 2015, p. 408.

- *the second specific objective* aims to study and highlight the role of tolerance vs. intolerance to uncertainty in the context of the abundance of "fake news" information;

- *the third specific objective* aims at highlighting the difference between people with different age profiles in the way they train emotional response reactions to contact with "fake news" and/or real news.

2.2. Research hypotheses

In order to achieve the objectives of the research we proposed the following hypotheses:

- **Hypothesis 1** - *Social media information, especially fake news, induces some dysfunctional negative emotional states in some people.*

- **Hypothesis 2** - *There are some differences in the level of emotional states induced by social media information, especially fake news, depending on the age of the individuals.*

- **Hypothesis 3** - *There are interdependent relationships between the emotional states generated by information content, especially fake news content, and tolerance versus intolerance of uncertainty.*

2.3. Structure and description of the research batch

The basic criteria underlying the selection of research participants were: availability to allocate the time necessary to complete the assessment instruments, given that the data collection took place between December 2022 and January 2023; the possibility of accessing the psychological assessment instruments, either in pen-and-paper or online format; the familiarity and ease of accessing information content from social-media networks relating to the social, economic, political and military context at the end of 2022; the quality of student and, simultaneously, the existence of interpersonal relationships developed within the framework of a professional organisation, regardless of professional field and seniority in the profession.

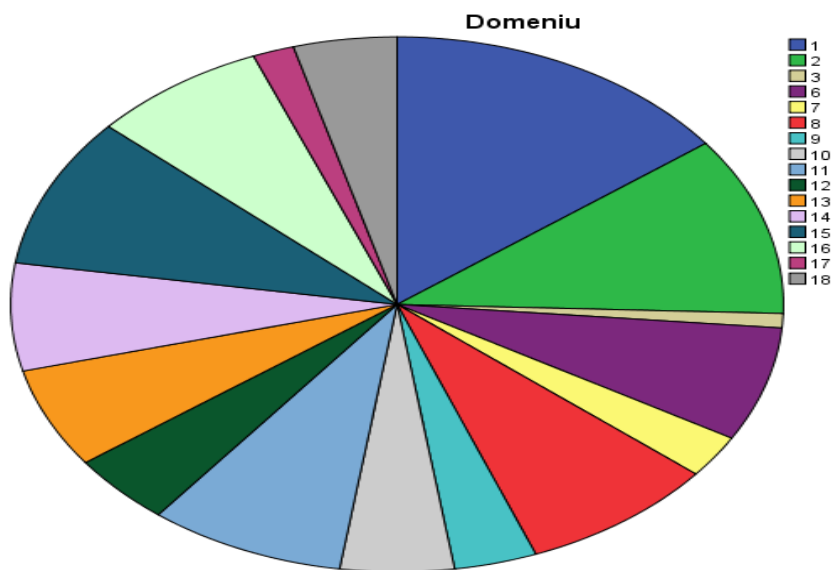
In this regard, the convenience sampling technique (non-probability technique) was used to constitute the research sample, which, according to Popa⁶, does not take into account the requirements of indicating the probability of selection of cases, as a result, there is no guarantee that the sample is composed of cases that accurately describe the reference population described above.

⁶ M. Popa, *Metodologia cercetării [Research Methodology]*, APIO, 2016.

Thus, the research group consisted of 231 people, all with student status in three universities in Bucharest and the following characteristics:

- gender balanced, i.e. 118 women and 113 men;
- heterogeneous in terms of age, with ages ranging from 20 to 55 years and an average of 33 years;
- heterogeneous in terms of educational background, i.e. 66 with secondary education, 66 with bachelor's degree, 93 with master's degree and 6 with doctoral degree;
- heterogeneous in terms of the professional field in which people work, i.e. 34 in finance (1), 25 in human resources (2), 3 in industry (3), 16 in commerce (6), 6 in advertising (7), 19 in education (8), 9 in law (9), 11 in healthcare (10), 19 in psychological care (11), 10 in management (12), 14 in engineering (13), 15 in arts (14), 21 in defence and public order (15), 17 in public services (16), 4 in local/central government (17) and 10 in other (18), according to the data in Figure No. 1.

Figure 1 - Distribution of staff by professional field



2.4. Tools used to assess the variables

Data were collected by applying the standardised psychological assessment instruments presented below, in both electronic and pencil-and-paper versions.

2.4.1. „Fake news” and „real news” scale (S.S.F.S.A.)

The scale was developed specifically for this scientific approach, with the aim of assessing and highlighting how people process and react when they are in the situation of receiving certain stimuli, through the lens of written information, i.e. "fake news" or "true" news, with the requirement to assess how plausible the news is/was for them at the time it appeared, taking into account the following response options: 1 (probably false); 2 (definitely false); 3 (probably true); 4 (definitely true).

The task of the evaluators was to analyse and classify each item into one of two categories, i.e. "fake news" or "true", according to their own way of relating to information content in social media.

At the same time, for each "fake news" or "true" news item elaborated in the form of a scale item, people were asked to self-assess their emotional states induced/challenged by the information content, by referring to a continuum from -10 to +10, considering each of the following three bipolar dimensions: anxiety - relaxation; depression - elation; anger - calmness.

The scale was designed by the author of the study in cooperation with three psychological experts and comprises a total of 22 items (presented in Appendix). Initially the scale comprised 28 items, operationalised/conceptualised by using 14 contents specific to "fake news" and 14 contents specific to "real" news, which were topical at the time of the initiation of the research approach, being taken from official news websites. Following the pilot study, the psychological experts judged 6 items to be inappropriate and they were eliminated.

2.4.2. *Uncertainty Intolerance Scale (UIS)*

The scale was taken from www.researchcentral.ro and was used to assess possible psychological vulnerabilities that may lead to an inability to act under conditions of increased uncertainty. It consists of 27 items, and responses are recorded on a 5-step Likert-type scale.

2.4.3. *Factual data scale*

The scale was designed by the author of the study to collect information on age, gender, level of education, professional status, professional field of work, and finally date and signature of the person.

3. Research results.

Hypothesis 1. *Social media information, especially "fake news", induces some dysfunctional negative emotional states in some people.* The statistical technique called Pearson correlations was used to prove the hypothesis and the results are presented in Tables 3.1, 3.2 and 3.3.

Table 3.1. - Descriptive statistics and correlation coefficient values between the variable "fake news" and the variables emotional states induced by them (N=231)

Variables	M	S.D.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Items identify the variable "fake news"	7.25	1.545	-						
(2) N.B. the variable "fake news"	11.2	3.395	.653**	-					
(3) Anxiety	29.22	20.811	.322**	.231**	-				
(4) Depression	11.71	7.954	.217**	.057	.605**	-			
(5) Anger	29.03	19.744	.339**	.260**	.981**	.598**	-		
(6) Relaxation	29.52	16.843	.312**	.259**	-.598**	-.292**	-.585**	-	
(7) Ecstasy	8.53	6.324	.304**	.117	-.119	.204**	-.115	.367**	-
(8) Calmness	31.67	18.455	.381**	.300**	-.562**	-.329**	-.547**	.923**	.368**

** Correlation is significant at the 0.01 level (2-tailed).

Table 3.2 - Descriptive statistics and correlation coefficient values between the variable "true news" and the variables emotional states induced by them (N=231)

Variables	M	S.D.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Identified items for the variable „true news“	9.73	2.185	-						
(2) N.B. the variable „true news“	32.70	7.573	.828**	-					
(3) Anxiety	24.76	10.957	.515**	.490**	-				
(4) Depression	13.03	6.283	.300**	.234**	.560**	-			
(5) Anger	26.28	10.994	.555**	.533**	.950**	.556**	-		
(6) Relaxation	55.02	20.003	.793**	.636**	.312**	.243**	.375**	-	
(7) Ecstasy	20.28	10.417	.385**	.254**	.060	.306**	.090	.524**	-
(8) Calmness	58.31	19.013	.789**	.601**	.203**	.166*	.250**	.933**	.573**

** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed).

Table 3.3. - Descriptive statistics and correlation coefficient values between the variable "fake news" - "true news" not correctly identified and the variables emotional states induced by them (N=231)

Variables	M	S.D.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Unidentified items for the variable "fake news" - "true news"	5.10	2.820	-						
(2) N.B. the variable "fake news" - "true news"	13.55	11.497	.468**	-					
(3) Anxiety	36.49	23.360	.931**	.440**	-				
(4) Depression	16.58	12.131	.666**	.282**	.619**	-			
(5) Anger	36.28	23.256	.936**	.431**	.993**	.647**	-		
(6) Relaxation	9.68	7.460	.637**	.256**	.389**	.412**	.398**	-	
(7) Ecstasy	7.27	5.646	.651**	.282**	.435**	.492**	.458**	.784**	-
(8) Calmness	10.35	8.268	.682**	.282**	.438**	.467**	.454**	.885**	.784**

** Correlation is significant at the 0.01 level (2-tailed).

Data for the "fake news" variable as well as for the "true news" variable were obtained by identifying and correctly framing the items with specific content, while data for the "fake news"- "true news" variable were obtained by not identifying and correctly framing the items specific to the first two variables.

In agreement with Colton⁷, correlation coefficients are interpreted as follows:

- a correlation coefficient of -0.25 to 0.25 means poor or no correlation;
- a correlation coefficient of 0.25 to 0.50 (or -0.25 to -0.50) means an acceptable degree of association;
- a correlation coefficient of 0.50 to 0.75 (or -0.50 to -0.75) means a moderate to good correlation;
- a correlation coefficient greater than 0.75 (or less than -0.75) means a very good association or correlation.

Data presented in Tables 3.1, 3.2 and 3.3. show that between the variables represented by the content of the news and the variables represented by the emotional states induced by them there are different degrees of association, expressed by multiple values of the correlation coefficients, from values specific to acceptable association to good or even very good values, which

⁷ T. Colton, *Statistics in Medicine*, Boston: Little, Brown and Company, 1974, p. 167.

allows us to conclude that the way in which the stimuli are received, processed and interpreted has a direct influence on the way in which the response, in this case emotions, are elaborated.

As far as the variable "real news" is concerned, we observe a very good association with the variables represented by emotional states, supported by the values presented in the second column of Table 3.2, which shows that the stimuli, i.e. the various information contents, involve a natural relationship of interconnection involving reception, processing, interpretation and response.

We can also see that the data on the "fake news" variable, obtained through the responses to the correctly identified and framed items, as well as the data on the "fake news"- "true news" variable, obtained through the responses to the items that were not correctly identified, both among those with "fake news" content and among those with "true news" content, show the presence of dysfunctional negative emotions specific to anxiety, depression and anger through close correlation coefficient values, which allows us to judge that items that cannot be correctly assessed and classified, regardless of content, will have a similar influence on the person's response, most likely maladaptive action behaviour.

Partial conclusion: from the data presented in Tables 3.1., 3.2. and 3.3. and from the interpretation presented we can state that hypothesis 1 is statistically supported.

Hypothesis 2. *There are some differences in the level of emotional states induced by social media information, especially "fake news", depending on the age of people.* The statistical technique called differences in statistical means, i.e. Independent-Samples Test, was used to prove/ test the hypothesis, and the results obtained are presented in Tables 3.4 and 3.5.

Table 3.4 - Descriptive statistics on the differences in statistical means between the two age groups on emotions induced by the variables "fake news", "real news" and "fake news"- "real news" (N=231)

Emotions induced by news variables	Age group	N	Variable „fake news“			Variable „true news“			Variable „fake news“- „true news“ icorectly identified items		
			M	S.D.	Std.Error Men	M	S.D.	Std.Error Men	M	S.D.	Std.Error Men
Raw score	1	118	10.81	3.542	.326	32.68	8.670	.798	12.87	10.672	.982
	2	113	11.60	3.200	.301	32.73	6.264	.589	14.25	12.308	1.158
Anxiety	1	118	14.19	8.818	.812	21.57	11.241	1.035	36.23	24.935	2.295
	2	113	44.91	17.941	1.688	28.10	9.620	.905	36.77	21.701	2.041

Depression	1	118	8.52	6.803	.626	12.75	7.806	.719	16.78	12.952	1.192
	2	113	15.04	7.720	.726	13.32	4.152	.391	16.37	11.265	1.060
Anger	1	118	15.04	8.951	.824	23.05	11.548	1.063	36.14	25.178	2.318
	2	113	43.63	17.194	1.618	29.65	9.300	.875	36.42	21.176	1.992
Relaxation	1	118	39.24	14.700	1.353	59.58	22.145	2.039	9.03	6.926	.638
	2	113	19.38	12.395	1.166	50.27	16.268	1.530	10.35	7.954	.748
Ecstasy	1	118	9.41	7.343	.676	23.52	10.363	.954	7.25	5.941	.547
	2	113	7.61	4.914	.462	16.90	9.386	.883	7.30	5.347	.503
Calmness	1	118	41.23	16.933	1.559	64.15	20.025	1.843	10.08	8.746	.805
	2	113	21.68	14.246	1.340	52.21	15.811	1.487	10.62	7.767	.731

Table no. 3.5. - Values of differences of statistical means (Independent Samples Test) on emotions induced by the "fake news" variable for the two age groups (for N=231)

Emotions induced by news variables	Equal variances assumed/ not assumed	Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Raw score	Assumed	.931	.336	-1.772	229	.078	-.788	.445	-1.665	.088
	not assumed			-1.776	228.237	.077	-.788	.444	-1.663	.086
Anxiety	Assumed	43.463	.000	-16.621	229	.000	-30.717	1.848	-34.358	-27.075
	not assumed			-16.401	161.544	.000	-30.717	1.873	-34.415	-27.018
Depression	Assumed	1.758	.186	-6.825	229	.000	-6.527	.956	-8.412	-4.643
	not assumed			-6.806	222.654	.000	-6.527	.959	-8.417	-4.637
Anger	Assumed	31.699	.000	-15.945	229	.000	-28.586	1.793	-32.118	-25.053
	not assumed			-15.747	166.918	.000	-28.586	1.815	-32.170	-25.002
Relaxation	Assumed	4.151	.043	11.076	229	.000	19.857	1.793	16.324	23.389
	not assumed			11.116	225.421	.000	19.857	1.786	16.337	23.377
Ecstasy	Assumed	10.632	.001	2.175	229	.031	1.796	.826	.169	3.423
	not assumed			2.193	205.158	.029	1.796	.819	.182	3.411
Calmness	Assumed	5.502	.020	9.474	229	.000	19.547	2.063	15.482	23.613
	not assumed			9.509	225.298	.000	19.547	2.056	15.497	23.598

In terms of age, people were divided into two groups, 118 people aged up to 35 in the first group and 113 people aged over 35 in the second group.

From the analysis of the data presented in tables 3.4 and 3.5, the following can be concluded:

- significant differences are shown between the two age groups in terms of the level of emotional states induced by news content specific to the three variables, with higher values in the case of the "fake news" variable and lower tendencies in the case of the "fake news" - "real news" variable - items not correctly identified;

- dysfunctional negative emotional states induced by the "fake news" variable have higher values in the age group over 35 compared to the age group under 35, which means that older people are more conservative, show some resistance to change, and are less able to adapt to new situations;

- the positive emotional states induced by the "fake news" variable have higher values for the age group under 35 compared to the age group over 35, which means that younger people show an optimal level of adaptation to new situations and accept changes more flexibly;

- stimulus processing mechanisms work differently, one could say in favour of the under-35 age group, perhaps supported by life experience with fewer events and worries, the prospect of future professional experiences, open-mindedness and the possibility of personal development etc.

Partial conclusion: the data mentioned in Tables 3.4. and 3.5. and the interpretation presented above allow us to state that hypothesis 2 is statistically supported.

Hypothesis 3. *There are interdependent relationships between the emotional states generated by information content, especially fake news content, and tolerance versus intolerance of uncertainty.* The statistical technique called Pearson Correlations was used to prove the hypothesis and the results are presented in Table 3.6.

Table 3.6 - Descriptive statistics and correlation coefficient values between the uncertainty tolerance/intolerance variable and emotions induced by the "fake news" variable, the "real news" variable and the "fake news" - "real news" variable (for N=231)

Variables	M.	S.D.	Emotional states induced by the variable „fake news“					
			Anxiety	Depression	Anger	Relaxation	Ecstasy	Calmness
Tolerance vs. intolerance to uncertainty	64.81	29.944	.714**	.370**	.704**	-.566**	-.236**	-.531**
Emotional states induced by the variable "true news"								
Tolerance vs. intolerance to uncertainty	64.81	29.944	.335**	.077	.319**	-.180**	-.237**	-.278**
Emotional states induced by the variable „fake news“ - "true news"								
Tolerance vs. intolerance to uncertainty	64.81	29.944	-.023	-.040	-.030	.018	-.061	-.034

** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed).

The data presented in Table 3.6 highlights:

- between the variable tolerance vs. intolerance to uncertainty and the variable emotional states induced by "fake news" significant association or intercorrelation relationships are present, supported by the high values of the correlation coefficients in the case of negative emotional states (e.g. for anxiety $r=.714^{**}$; for anger $r=.704^{**}$);

- in the case of positive emotional states, reported on the same variable, the values of the correlation coefficients are high, but with a negative sign ("-"), which means that when the tolerance to uncertainty increases the values of negative emotions decrease (e.g.: for relaxation $r=-.566^{**}$; for calmness $r=-.531^{**}$), and positive emotions take the place of negative ones;

- in the case of the relationship between the variable emotional states induced by "real news" and the variable tolerance vs. intolerance to uncertainty we observe association relationships supported by lower values of the correlation coefficients in the case of negative emotional states (e.g.: for anxiety $r=.335^{**}$; for anger $r=.319^{**}$), but at the same time we capture a negative relationship with positive emotional states (e.g. for relaxation $r=-.180^{**}$; for elation $r=-.237^{**}$; for calmness $r=-.278^{**}$), which means that increased uncertainty leads to decreased positive emotions, and as uncertainty increases positive emotions will decrease.

Partial conclusion: the data mentioned in Table 3.6 and the interpretation presented above justify us to state that hypothesis 3 is statistically supported.

4. Research findings

Although the data presented in this study are part of a broader research, which takes into account several psychological characteristics, we can easily deduce that news in general has a direct influence on the way people relate to it, on their emotional states, on their action behaviours, and that fake news content most often induces dysfunctional negative emotions, such as anxiety or fear, depression or sadness, etc.

The research objectives have been met, the working hypotheses are statistically supported by the data and results obtained, and the variables established in the research design proved to be relevant to the need to highlight the characteristics of the relationship between "fake news" and the emotional states induced by them.

At the same time, we can appreciate that the results obtained participate with scientifically validated evidence to substantiate the

concern about: why the response reactions of people in such situations are different, some overcome the situation without difficulty, as if nothing had happened, and others even need expert support to overcome?

In terms of how to deal with news content, both the direct role on some affective processes or states, but also the role of the psychological characteristic called uncertainty intolerance involved in stimulus processing has been highlighted, so we can predict which people show a certain ability to discern between news with advert and fake news content, as well as on some response behaviours, adaptive versus maladaptive.

Although the present study is limited, as it takes into account a range of data obtained with a limited number of psychological assessment tools, it provides some scientifically validated evidence that "fake news" content can affect a significant number of people, and that their behavioural actions can be damaging to them and to the organisation to which they belong, whether for educational or productive purposes.

REFERENCES:

Ciorbea, I., coord. (2015), *Evaluarea psihologică aplicată. Repere teoretice și practice* [Applied Psychological Assessment: Theoretical and Practical Guidelines], Bucharest: Trei Publishing House, p. 408.

Colton, T., (1974), *Statistics in Medicine*, Boston: Little, Brown and Company, p. 167.

David, D., (2012), *Tratat de psihoterapii cognitive și comportamentale* [Treatise on Cognitive and Behavioral Psychotherapies], Iași, Polirom Publishing House, p. 125-130.

Marineanu, V. & Prisăcaru, A., (2021), *Forme de asigurare a asistenței psihologice în Armata României, în contextul pandemiei Covid-19* [Forms of Psychological Assistance in the Romanian Army in the Context of the Covid-19 Pandemic], in *Revista de Psihologie Militară* [Military Psychology Journal], vol. 1/2021, Bucharest, p. 92-95.

Popa, M., (2016), *Metodologia cercetării, APIO* [Research Methodology] APIO.

Webliography:

- www.veridica.ro/stiri-false/17.11.2022, ora 15:35:22;
- www.digi24.ro/stiri/actualitate/09.11.2019, ora 20:00;
- <https://start-up.ro/start-up.ro/05.01.2023>, ora 09:34;
- www.researchcentel.ro/14.11.2022, ora 10:07.

Scale of "fake news" or "true news" (fragment)

The scale is designed to assess how people think and react when they need to discern whether a piece of news is "fake news" or true. It includes a total of 22 news items randomly distributed within the scale. In this regard, please assess the plausibility of the news articles below (at the time of their publication) on a scale from 1 (definitely false) to 4 (definitely true), and mark your answer with an "X" on the response sheet.

Additionally, for each news item, please self-evaluate the emotional states provoked by their content by marking your responses on a continuum from -10 to +10, considering the following three bipolar dimensions: anxiety-relaxation, depression-ecstasy, anger-calmness.

1. The President of Romania believes that the Government should find solutions so that both salaries and pensions are increased by at least the inflation rate, which surpassed 15% in August and is already at the threshold of 16% in September.

Item 1	Response options regarding the content of the news:				
	1	2	3	4	
Self-evaluation of emotional states:					
	-10	-5	0	+5	+10
Anxiety					Relaxation
Depression					Ecstasy
Anger					Calmness

2. A country, Austria, last-minute blocks the decisions of 26 countries regarding Romania's entry into Schengen, using the authoritarian method of consensus.

Item 2	Response options regarding the content of the news:				
	1	2	3	4	
Self-evaluation of emotional states:					
	-10	-5	0	+5	+10
Anxiety					Relaxation
Depression					Ecstasy
Anger					Calmness

3. The population and the economic environment in Romania have been sacrificed for the sake of Maia Sandu. Hidroelectrica and Nuclearelectrica are no longer selling energy on the market, not even for the next year, as they have received orders from the Government to reserve the entire quantity for the Republic of Moldova.

Item 3	Response options regarding the content of the news:					
	1	2	3	4		
Self-evaluation of emotional states:						
	-10	-5	0	+5	+10	
Anxiety						Relaxation
Depression						Ecstasy
Anger						Calmness

SOCIAL JUSTICE IN EDUCATION: HOW IT IS ESTABLISHED THROUGH EDUCATIONAL LEADERSHIP & THE OBSTACLES TO ITS IMPLEMENTATION

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Abstract: *The issue of educational leadership with an emphasis on social justice is a timeless issue in education. In this article an attempt is made to highlight the main characteristics of educational leaders, the practices they use as well as the obstacles they have to face in their daily struggle to establish social justice in their schools. The successful integration and implementation of equity and social justice in education, in relation to educational leadership is the key to a democratic and efficient education. Social justice in education is paramount for fostering inclusive societies and ensuring equal opportunities for all individuals. It recognizes that systemic inequalities based on race, socioeconomic status, gender, ability, and other factors can hinder educational access and success. By embracing social justice principles, educational institutions strive to dismantle these barriers, promote diversity, and create environments where every learner feels valued and empowered. Social justice in education not only addresses disparities in resources and opportunities but also cultivates critical thinking, empathy, and a sense of civic responsibility among students. Ultimately, it lays the foundation for a more equitable and just society where everyone can thrive and contribute to positive social change.*

Keywords: *social justice, equity, educational leadership, school culture, participatory leadership, organizational culture, inclusive learning environment*

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Introduction

Equality derives from the concept of social justice. It represents the belief that there are certain things that people should have, that there are basic needs that must be met, that burdens and rewards should not be spread too unequally throughout society, and that politics should be directed with fairness and justice to these ends¹. Social justice, which is considered central to sustainability in most countries, includes meeting basic human needs and is related to the rights, dignity and well-being of all people. It includes respect for the traditions and religions of other societies and cultures and encourages empathy for other people's living conditions.

Equality in education (educational equality) is an international issue that concerns the educational community and society more broadly since the middle of the last century, as reflected in article 26 of the Universal Declaration of Human Rights of the United Nations (UN, 1948)². This Declaration, together with the Declaration "Education for All" (UNESCO, 1990)³ and the Declaration of Salamanca (UNESCO, 1994)⁴, are considered to be among the most important texts, formulated internationally for man and his rights to education. Especially since the 1960s, issues of equal opportunities in education as well as issues concerning the role of school as a mechanism for selecting and showing talent came at the centre of the research interest of sociologists, educators and political scientists. Scholars from these fields through their theories and research displayed profound and unconditional respect of the right of all children -without discrimination- to education. This attitude derives essentially from a

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¹ J. Falk, G.R Hampton, A.T. Hodgkinson, K. Parker, & A. Rorris, "Social Equity and the Urban Environment: Report to the Commonwealth Environment Protection Agency. Canberra: Commonwealth Environment Protection Authority", *Commonwealth Government Printer*, (1993).

² UN "Universal Declaration of Human Rights", <http://www.un.org/en/universal-declaration-human-rights>, (1948).

³ UNESCO "World declaration on education for all and framework for action to meet basic learning needs", *International Consultive forum on education for all*. Paris, UNESCO, (1990).

⁴ UNESCO "The Salamanca statement and framework for action on special needs education" *UNESCO and the Ministry of education and science, Spain*. Paris: UNESCO, (1994).

concept of equality before the law; it is understood as an anti-discrimination principle applied to educational opportunity, in the sense that equality of opportunity requires the removal of formal obstacles, in the form of laws or entrance criteria for educational institutions, which refer to ascriptive characteristics (race, socio-economic class, gender, religion and sexuality). On the other hand, unequal educational opportunity inevitably results to educational inequality, which is considered as the uneven distribution of academic resources, including - but not limited to- school funding, qualified teachers, books, technologies and socially excluded, disadvantaged and oppressed communities.

The criticality of the educator - principal's role for the proper functioning of the school is widely accepted and he is one of the determining factors for the existence or nonexistence of social justice in schools⁵. The abundance of literature on social justice in education and especially the role of educational leadership in realizing it within schools, prove the great importance that researchers attach to it. Through their research they try to highlight the characteristics of the leaders who will promote social justice but also the challenges they have to encounter for its consolidation⁶.

Theoretical framework

Educational leadership is widely recognized as complex and difficult. Educational leaders are expected to develop learning communities and teacher professional competence, engage in collaborative and consultative decision-making, resolve conflict, and approach respectfully, directly, and effectively the needs and requests of culturally, ethnically, and socioeconomically diverse families. backgrounds.

Increasingly, educational leaders face enormous pressure to demonstrate that every student for whom they have responsibility is achieving, most often defined as the student's performance on a

⁵ I. Berkovich, "A socio-ecological framework of social justice leadership in education. *Journal of Educational Administration*", 52(3), pp. 282-309, (2014); B.W. Kose, "The principal's role in professional development for social justice: An empirically-based transformative framework" *Urban Education*, 44(6), (2009), pp. 628-663; C. M. Shields, "Dialogic leadership for social justice: Overcoming pathologies of silence", *Educational administration quarterly*, 40(1), (2004), pp. 109-132.

⁶ I. Berkovich, "A socio-ecological framework of social justice leadership in education", *Journal of Educational Administration*, 52(3), (2014), pp. 282-309.

standardized test⁷. Into this spectrum of competing and pressing challenges comes another imperative where educational leaders want to be transformative, and responsible for social justice as well as academic upgrading of their schools. Shields (2004) suggests that transformational leadership, based on dialogue and strong relationships, can provide opportunities for all children to learn in school communities that are socially just and deeply democratic.

Definition of social justice

The theoretical elaboration of the concept of justice and the subsequent presentation and foundation of the just society originates from antiquity and continues unabated to this day to be at the center of interest of sociologists, philosophers, lawyers, educators, political scientists and also politicians. Since ancient times, inequality and injustice have been associated with poverty, social oppression, deprivation of political rights and the provoking of state changes. On the contrary, the demand for equality and justice represents the humans' attempt to establish principles of social coexistence, the implementation of which will ensure prosperity and social harmony. Through the ages, the content of the concept of justice was approached from different theoretical starting points and took on various meanings. As Aristotle observed, "justice and injustice are both spoken of in more ways than one".

The first consistent, comprehensive and thorough treatise on justice is found in Plato's Republic, the discussion of which focuses on the nature of justice and injustice and extends to theorizing the question of whether and to what extent the just or the unjust are happier. The fundamental basis of the Republic lies in the recognition of justice as the greatest good, through which the highest purpose of the state, which is the happiness of the citizens, is realized. Justice together with wisdom, valor and prudence embody the four virtues of the ideal State (427d-434d). In the ideal state, justice is implemented when each social class is limited to the area of activity-service for which his nature is best adapted to without being drawn into multitasking (433a8-9). In this context, Plato argues that justice presupposes first that every citizen recognizes that his separate role contributes in some way to the common good, second that every citizen should not possess anything that belongs to others, nor should he be

⁷ C.M. Shields, "Dialogic leadership for social justice: Overcoming pathologies of silence", *Educational administration quarterly*, 40(1), (2004), pp. 109-132.

deprived of what is his own property, and third that every citizen should be placed in the class (Guardians, Epicureans or Creators) into which he really belongs.

The idea of social justice holds a prominent place in Aristotle's philosophical thought as well. Justice is thoroughly elaborated in many of his works, but mainly in the fifth book of the *Nicomachean Ethics*, where he treats justice first as a virtue of character in which the virtue lies as an intermediate or mean between vices of excess and defect, and second as a means to ensure the happiness of political society as a whole. Justice is identified with equality. The latter concerns at least four conditions, two persons and two things: if the persons are equal, they are entitled to equal things, rewards, positions, etc., while if the persons are unequal (moral character, qualifications, achievements, etc.), are entitled to unequal things.

The legacy of the ancients continued into the medieval and modern period of intellect. The key questions concern the determination of the conditions of a fair behavior- conduct, the rational foundation of judgments about the fair or unfair act, the way institutions are formed and function and the way a society is organized. The in-depth elaboration of such questions has led especially during the 20th century to different approaches; as a result, the concept of justice still causes controversy among theorists. In general, however, it seems to be perceived as a dominant social reality structured in such a way that fundamental rights and obligations are distributed in a rational way, so as to ensure equal access to wealth, opportunities, social privileges, freedom of expression and participation in political decision-making, and to provide the basic conditions for a meaningful life.

Despite controversy among theorists, which in the field of theoretical areas seem rather inevitable, the demand against social injustice is universal and imperative, a demand for equality, freedom, equality, meritocracy, egalitarianism and fraternity that can thrive on one the condition: the implementation of the optimal balance between the responsibilities of the official state and our responsibilities as individuals. Under this assumption the concept of justice takes on a double meaning.

The first meaning prioritizes the enforcement of justice through the function of well-established state institutions. The agent of social justice, therefore, becomes the welfare state, which protects and promotes the economic and social well-being of its citizens, based upon the principles of equal opportunity, equitable distribution of wealth, and public

responsibility for citizens unable to avail themselves of the minimal provisions for a good life. Coexisting in a society peacefully without any conflict is a complex and challenging goal, because people have contrasting beliefs and opinions and conflicting interests. Thus, it is the state's responsibility to regulate the rights and obligations of its citizens in a universal way. When all members of society know that they are bound by the same principles of justice established by the state and enforced by its official institutions, their association becomes more secure.

The second meaning highlights individual moral consciousness, philosophy and worldview, which is connected to political and social justice consciousness. This meaning has an ethical dimension and is linked to the historically changing perceptions of the essence of man and of his inalienable rights but also of the meaning of life, personal priorities and principles. Social justice is closely related to a moral assessment of how wealth, labor, opportunities, free time and other benefits-goods should be distributed among different individuals or classes within society. It presupposes that people share a common meaning of humanity, respect and solidarity, a common framework of ideas about a prosperous society, a common assessment of right behavior and action at least at a basic level. Therefore, it requires that they recognize the right to equal treatment, without discrimination or prejudice based on gender, sexuality, religion, political beliefs, age, race, disability, social class, socio-economic conditions. Such a moral standard, which consists of an accepted common set of basic behavioral traits and a common understanding of rights, obligations and principles, is the foundation of social justice.

As far as the interest of social justice in education leadership is concerned, it has increased since the late 1980s, and its renaissance begins with the dawn of the 21st century. Although issues of social justice are gaining ground among scholars, and many of them have attempted to define it, there is still no broad agreement on a conceptual definition in relation to educational administration⁸ provides a concept of social justice

⁸ I. Berkovich, "A socio-ecological framework of social justice leadership in education", *Journal of Educational Administration*, 52(3), (2014), pp. 282-309; S. Gewirtz, "Conceptualizing social justice in education: Mapping the territory" & Shoho", (1998); A.R., Merchant, B.M., & C.A. Lugg, "Social justice: seeking a common language. In: F. English (Ed.)", *The Sage Handbook of Educational Leadership: Advances in Theory, Research, and Practice*, Thousand Oaks, CA: Sage Publications, (2005), pp. 47-67. Cf. El. Vavouras, "The political philosophy as a precondition and completion of political

centered on the ideas of disrupting and undermining arrangements that promote processes of marginalization and exclusion. Social justice advocates a process based on respect, care, recognition and empathy. Theocharis'⁹ (2007) definition focuses on addressing and eliminating marginalization in schools, considering that for social justice leadership issues of race, class, gender, disability, sexual orientation, and other conditions of marginalization are central to the practice of power that she also implements her vision. However, Bogotch (2002)¹⁰, who defines educational leadership as an intentional intervention that requires the ethical use of power, claims that there are no stable or predictable notions of social justice prior to actual engagement in educational leadership practices.

As critical leadership and policy research has advanced over the past 30 years, researchers have raised questions that have produced remarkable changes in the study of social justice leadership. These changes have moved social justice research through three overlapping but progressive aspects¹¹:

1. deconstruction of the existing logics of leadership
2. depicting alternative leadership perspectives and
3. the construction of leadership theories, systems and processes for social justice.

Each strand of research is vital to advancing leadership for social justice in education.

The importance of social justice and school leadership

The increasing cultural, racial, linguistic and socio-economic diversity in most nations, especially in Western societies, has contributed to the broadening of the debate around issues of social justice. Today, as our understanding of diversity expands further, the concept of social justice becomes even more complex. The difficulty of understanding social justice

economy in the Ways and Means of Xenophon", *Dia-noesis: A Journal of Philosophy*, 9, (2020), pp. 183-200.

⁹ G. Theocharis, "Navigating rough waters: A synthesis of the countervailing pressures against leading for social justice", *Journal of School Leadership*, 17, (2007a), pp. 4-27.

¹⁰ I.E. Bogotch, "Educational leadership and social justice: Practice into theory", (2002).

¹¹ C.L., Larson, & K. Murtadha, "Leadership for social justice", *Yearbook of the National Society for the Study of Education*, 101(1), (2002), pp. 134-161.

begins with the very meaning of the term¹², since it does not have a single essential meaning, but is embedded within discourses that are historically constituted and are sites of contradictory and divergent political efforts (Rizvi, 1998).

Rizvi (1998) categorizes social justice debates into three main philosophical traditions: liberal individualism, market individualism and social democracy. In contrast to Rizvi's (1998)¹³ categorization, which focuses on philosophical concepts of social justice, Hytten and Bettez (2011) classify the social justice literature and synthesize it into works which is - primarily philosophical / conceptual, practical, ethnographic / narrative, theoretically specific and democratically informed. The philosophical/conceptual strand largely overlaps Rizvi's (1998) categorization and is based on providing broad criteria, principles and structures for thinking about justice¹⁴. This strand also addresses contemporary social movements (feminism, LGBT1 rights, etc.) and adopts a broader concept of justice.

There are many scholars who have tried to record the characteristics of educational leaders. Here are three representative such accounts where scholars look at the characteristics of leaders from different angles.

For Scheurich (1998)¹⁵, the importance of values and beliefs in guiding social justice leaders is a matter related to their characteristics. Managers' personal beliefs play an important role in how they manage. Social justice leaders are characterized by five core beliefs:

- 1) All students can achieve at high academic levels,
- 2) The student must be at the center of the school,
- 3) Without exception, all students must be treated with love, appreciation, care and respect,
- 4) Students' ethnic culture, including their first language, is highly valued,

¹² M. Novak, "Defining social justice", *First things*, 108, (2000), pp. 11-13.

¹³ E. Rizvi, "Some thoughts on contemporary theories of social justice in B. Atweh, S. Kemmis, & P. Weeks (Eds.)", *Action research in practice: Partnerships for social justice in education*, London, UK: Routledge, (1998), pp. 47-56.

¹⁴ K. Hytten & S.C. Bettez, "Understanding education for social justice", *Journal of Education Policy*, 13, pp. 469-484, *Journal of School Leadership*, 12(2), (2011), pp. 138-156.

¹⁵ J.J. Scheurich, "Highly successful and loving, public elementary schools populated mainly by low-SES children of color: Core beliefs and cultural practices", *Urban Education*, 33(4), (1998), pp. 451-491. J.J. Scheurich & L. Skrla, "Leadership for equity and excellence", Thousand Oaks, CA: Corwin Press, (2003).

5) The school exists and serves the community.

Developing a healthy organizational culture.

Another practice of social justice leaders is to promote the development of a healthy organizational culture within schools. Principals should strive to develop a fertile ground in which discussions such as teaching about social justice can develop.¹⁶

Scheurich (1998) found that the schools he studied share seven organizational characteristics that are interconnected and mutually reinforcing. The staff of these schools:

- 1) had a strong, shared vision;
- 2) created a loving, caring environment for children and adults,
- 3) worked together to build a family social structure,
- 4) was open to new ideas and embraced innovation and experimentation,
- 5) found ways to work hard without burnout;
- 6) took responsibility for each student's success.

Implementation of democratic and participatory forms of leadership

A significant number of scholars conclude that social justice managers engage in democratic and participative forms of leadership. Social justice principals strive to develop teacher-leaders as a way to increase the capacity of their schools and view democratic and participatory leadership as an integral part of their work¹⁷.

Vibert and Portelli's¹⁸ study reached similar findings, noting that while the school's principal and vice-principal provided instructional leadership, the school had a shared leadership approach, where teachers and staff are encouraged to take leadership roles in activities or programs in which they have experience. Finally, Goldfarb and Grinberg¹⁹ argue

¹⁶ B.W. Kose, "The principal's role in professional development for social justice: An empirically-based transformative framework", *Urban Education*, 44(6), (2009), pp. 628-663.

¹⁷ D. Touchton, & M. Acker-Hocevar, "Using a lens of social justice to reframe principals' interviews from high poverty, low performing schools", Paper presented at the *Annual Meeting of the University Council of Educational Administration*, Cincinnati, OH, (2001).

¹⁸ A. Vibert & J. Portelli, "School leadership and critical practice in an elementary school", *Exceptionality Education Canada*, 10, (2000), pp. 23-36.

¹⁹ K.P. Goldfarb, & J. Grinberg "Leadership for social justice: Authentic participation in the case of a community center in Caracas", *Venezuela. Journal of School Leadership*, 12, (2002), pp. 157-173.

that social justice leadership focuses on building critical, participatory and equitable relationships, creating safe spaces of trust.

Enhancing staff capacity

An important strategy for principals to improve student achievement and create more equitable schools involves strengthening the capacity of their school staff. Principals should provide teachers with the necessary time and discretion they need to develop the ability to engage in critical teaching and learning.²⁰

Principals themselves, in addition to standard teacher training programs, which are often found to be inadequate in preparing teachers to engage in social justice practices in the classroom, should seek to enhance the capacity of their staff by providing them with continuous development which focuses on building equality, giving them greater professional freedom, valuing as people and participation in the running of the school²¹.

Creating an inclusive learning environment

The connection between social justice and the inclusion of students with disabilities is necessary since social justice cannot be realized in schools where students with disabilities are segregated from the regular classroom or receive a separate curriculum and instruction.²² Inclusion is a social justice issue, and inclusive classrooms help us create an inclusive society²³.

Building the school community

School leaders often seek to build the school community but also to create close relationships with the wider community and particularly with marginalized families. Theocharis (2007a)²⁴ emphasizes the importance of school community building for school development and found that school

²⁰ B.W. Kose, "The principal's role in professional development for social justice: An empirically-based transformative framework", *Urban Education*, 44(6), (2009), pp. 628-663.

²¹ G. Theocharis "Navigating rough waters: A synthesis of the countervailing pressures against leading for social justice", *Journal of School Leadership*, 17, (2007a), pp. 4-27.

²² G. Theocharis, "Navigating rough waters: A synthesis of the countervailing pressures against leading for social justice: *Journal of School Leadership*, 17, (2007a), pp. 4-27.

²³ M. Sapon-Shevin, "Inclusion: A matter of social justice", *Educational Leadership*, 61, (2003), pp. 25-28.

C. M. Shields, "Dialogic leadership for social justice: Overcoming pathologies of silence", *Educational administration quarterly*, 40(1), (2004), pp. 109-132.

²⁴ G. Theocharis, "Navigating rough waters: A synthesis of the countervailing pressures against leading for social justice", *Journal of School Leadership*, 17, (2007a), pp. 4-27.

leaders work to strengthen school culture and school community while Scheurich (1998) found that principals share the belief that the school exists for the benefit of the community and notes that principals work systematically to minimize the separation between their schools and the wider community.

Barriers to implementing social justice in education

A significant body of research on social justice educational leadership examines the historical, political, and educational forces that hinder those who seek to enact this kind of leadership. The main obstacles arising from this examination are the following:

- *Deficit thinking*

It has been argued that deficit thinking plays an important role in the oppression of traditionally marginalized students²⁵. According to the deficit thinking model, victims are to blame for their oppression. The main causes of low academic performance are found in the supposed cognitive inadequacies and lack of motivation of students from different races, cultures and low socio-economic backgrounds since they and their families are considered to have certain internal defects or deficits that hinder the learning process, while social structures and institutions are considered not to bear responsibility²⁶. Deeply internalized negative beliefs about the abilities of minority students are a barrier to efforts to promote high levels of academic success for all students. They lead educators to question how such efforts could possibly succeed when the causes of low achievement are beyond their control. Shields describes how students and their families often internalize these pathological self-images which is consistent with Paolo Freire's claim that "oppressed populations often internalize the views of their oppressors".²⁷

²⁵ J. Oakes, K.H. Quartz, Ryan, S., & Lipton, M. "Becoming Good American schools", Phi Delta Kappan, 81(8), (2000), pp. 568-576. C.f. D. Kiritsis, "Economic Globalization, Society and Education", *Dia-noesis: A Journal of Philosophy*, 10, (2021), pp. 87-100.

²⁶ C. M Shields, "Dialogic leadership for social justice: Overcoming pathologies of silence", *Educational administration quarterly*, 40(1), (2004), pp. 109-132. - Valencia, R., & Black, M. "Mexican Americans don't value education! On the basis of the myth, mythmaking, and debunking", *Journal of Latinos and Education*, 2, (2002), pp. 81-102.

²⁷ P. Freire, "Pedagogy of the Oppressed", *30th Anniversary ed.* New York: Continuum, (2006).

- *Local expectations and efforts to maintain the status quo*

A close connection between the deficit thinking model and efforts to maintain the establishment has been widely observed in the literature. Educational leaders often face resistance when their actions run counter to the expectations of local communities, which are based on deeply held beliefs and the desire to maintain privileges traditionally enjoyed by certain groups.²⁸ Garza (2008) links the resistance he encountered from school board members and affluent parents to the deficit thinking model, noting that the community believed that some children simply did not learn, while Oakes et al.²⁹ found that powerful groups in many of the communities they studied were committed to protecting their traditional privileges.³⁰

- *Negative effects of liability policies*

Some scholars have examined the relationship between social justice leadership and accountability policies and tend to argue that accountability policies have produced some negative consequences. One result of the education reform movement is a focus on leadership as the centerpiece of any attempt to enact reforms aimed at increasing student learning. Educational leadership that attempts to serve any purpose other than student learning is considered illegitimate and ineffective³¹. Unfortunately, the concept of student learning, especially in schools that serve large numbers of students from traditionally marginalized groups, is often limited to a narrow focus on student scores on standardized tests³².

- *The personal and professional costs of the leaders*

Principals working to implement social justice face enormous resistance to their efforts, both within their school and outside of it, from

²⁸ G. Theoharis, "Social justice educational leaders and resistance: Toward a theory of social justice leadership", *Educational administration quarterly*, 43(2), (2007b), pp. 221-258.

²⁹ J. Oakes, K.H. Quartz, S. Ryan, & M. Lipton, "Becoming Good American schools. *Phi Delta Kappan*", 81(8), (2000), pp. 568-576.

³⁰ E. Garza, "Autoethnography of a first-time superintendent: Challenges to leadership for social justice", *Journal of Latinos and Education*, 7(2), (2008), pp. 163-176.

³¹ K.A. Leithwood, & C. Riehl, "What do we already know about educational leadership? In W. A. Firestone & C. Riehl (Eds.), a new agenda for research in educational leadership," *New York: Teachers College Press*, (2005), pp. 12-27.

³² C. Marshall, "Social justice challenges to Educational Administration: Introduction to a special issue", *Educational Administration Quarterly*, 40, (2004), pp. 3-13. Cf. El. Vavouras. "The Machiavellian reality of Leo Strauss", *Dia-noesis: A Journal of Philosophy*, 12, (2022), pp. 265-273.

the wider community. This resistance comes directly from leadership demands, establishment dynamics, staff attitudes and beliefs, and the expectations of privileged parents (Theoharis, 2007b). Resistance outside the school environment comes from unsupportive administrators and uninspired and uninnovative central agency administrations, massive bureaucracy and lack of resources. Facing resistance from these sources, managers are left isolated, in a system not designed to support them, and working with and for people who do not share their commitment to social justice³³. Many times, fear of the aforementioned negative consequences and due to local attitudes related to race, gender, sexual orientation, and religion can stifle efforts to exercise social justice leadership³⁴. Typical is Rapp's (2002) pessimism that it is highly doubtful that those involved in educational administration can sustain a real commitment to social justice since they have so much to lose.³⁵

Last but not least, there are principals who face these challenges every day and despite the pressures they face, they resist, survive and transform their schools. These leaders are willing and able to leave the comforts and boundaries of professional codes and government mandates and understand that leadership essentially means establishing values. They know, finally, that uncritical thinking, discussion and addressing issues of race, culture, disability and socio-economic inequalities only perpetuates the maintenance of power and the establishment³⁶.

Conclusion

Social justice in schools does not happen by accident. It takes more than what has traditionally been understood as good leadership to achieve greater equity in schools³⁷. Educational leaders must first learn that difference is normal and expected. Differences in schools offer a diversity

³³ G. Theoharis, "Social justice educational leaders and resistance: Toward a theory of social justice leadership", *Educational administration quarterly*, 43(2), (2007b), pp. 221-258.

³⁴ D.L. Hoff, Yoder, N. & P.S. Hoff, "Preparing educational leaders to embrace the "public" in public schools", *Journal of Educational Administration*, 44, pp. (2006), 239- 249.

³⁵ D. Rapp, "Social justice and the importance of rebellious imaginations", *Journal of School Leadership*, 12(3), (2002) pp. 226-245.

³⁶ K.M. Brown, "Leadership for social justice and equity: Evaluating a transformative framework and androgogy", *Educational Administration Quarterly*, 42(5), pp. 700-745, *Educational Foundations*, 25(1-2), (2006a), pp. 7-24.

³⁷ G. Theoharis, "Social justice educational leaders and resistance: Toward a theory of social justice leadership", *Educational administration quarterly*, 43(2), (2007b), pp. 221-258.

of human existence that should be the starting point for a deeply democratic, academically excellent and socially just education. No human being is defined by a single factor or characteristic.

Ensuring social justice in schools is considered to be closely related to the leadership behaviors of school principals. Schools are made up of diverse students and teachers in terms of factors such as race, gender, and socio-economic background. Ensuring and promoting social justice in such a social environment is the responsibility of school leaders. Exercising leadership roles of school principals for social justice is very important for teachers to understand the concept of social justice and demonstrate appropriate behaviors.

All educational systems must be sensitive to issues of social justice because this principle gives schools a multidimensional character.

Providing education to people of different socio-economic and socio-cultural backgrounds under one roof is very helpful for socialization. However, very big problems can start unless social justice is ensured. Social injustices in today's schools can lead to tomorrow's economic imbalances³⁸

If educational leaders and those who help prepare them for the remarkable work of educating students take seriously the need to overcome the pathologies of silence about diversity and work explicitly to replace the lack of thinking with deep and meaningful relationships, then they will many strides have been made toward achieving an education that is socially just and academically excellent for most students.

REFERENCES:

Berkovich, I., (2014), "A socio-ecological framework of social justice leadership in education", *Journal of Educational Administration*, 52(3), pp. 282-309.

Bogotch, I.E., (2002), "Educational leadership and social justice: Practice into theory".

Brown, K.M. (2006a), "Leadership for social justice and equity: Evaluating a transformative framework and androgogy," *Educational Administration Quarterly*, 42(5), pp. 700-745 - *Educational Foundations*, 25(1-2), pp. 7-24.

³⁸ M. Turhan, "Social justice leadership: implications for roles and responsibilities of school administrators", *Procedia-Social and Behavioral Sciences*, 9, (2010), pp. 1357-1361.

Falk, J., Hampton, G.R., Hodgkinson, A.T., Parker, K., & Rorris, A., (1993), "Social Equity and the Urban Environment: Report to the Commonwealth Environment Protection Agency", *Canberra: Commonwealth Environment Protection Authority, Commonwealth Government Printer*.

Freire, P., (2006), "Pedagogy of the Oppressed", *30th Anniversary ed. New York: Continuum*.

Garza, E., (2008), "Autoethnography of a first-time superintendent: Challenges to leadership for social justice", *Journal of Latinos and Education*, 7(2), pp. 163-176

Gewirtz, S., (1998), "Conceptualizing social justice in education: Mapping the territory".

Goldfarb, K.P., & Grinberg, J., (2002), "Leadership for social justice: Authentic participation in the case of a community center in Caracas, Venezuela", *Journal of School Leadership*, 12, pp. 157-173.

Hoff, D.L., Yoder, N. & Hoff, P.S., (2006), "Preparing educational leaders to embrace the "public" in public schools", *Journal of Educational Administration*, 44, pp. 239-249

Hytten, K., & Bettez, S.C. (2011), "Understanding education for social justice", *Journal of Education Policy*, 13, pp 469-484. *Journal of School Leadership*, 12(2), pp. 138-156.

Kose, B.W., (2009), "The principal's role in professional development for social justice: An empirically-based transformative framework", *Urban Education*, 44(6), pp. 628- 663.

Kiritsis, D., (2021), "Economic Globalization, Society and Education", *Dia-noesis: A Journal of Philosophy*, 10, pp. 87-100.

Larson, C.L., & Murtadha, K., (2002), "Leadership for social justice", *Yearbook of the National Society for the Study of Education*, 101(1), pp. 134-161.

Leithwood, K.A., & Riehl, C., (2005), "What do we already know about educational leadership"? *Philadelphia, pa: Laboratory for student success, Temple University*.

Firestone & C. Riehl (Eds.), "A new agenda for research in educational leadership", *New York: Teachers College Press*, pp. 12-27.

Marshall, C., (2004), "Social justice challenges to Educational Administration: Introduction to a special issue", *Educational Administration Quarterly*, 40, pp. 3-13.

Novak, M., (2000), "Defining social justice", *First things*, 108, pp. 11-13.

Oakes, J., Quartz, K.H., Ryan, S., & Lipton, M., (2000), "Becoming Good American schools", *Phi Delta Kappan*, 81(8), pp. 568-576.

Rapp, D., (2002), "Social justice and the importance of rebellious imaginations", *Journal of School Leadership*, 12(3), pp. 226-245.

Rizvi, E., (1998), "Some thoughts on contemporary theories of social justice in B. Atweh, S. Kemmis, & P. Weeks (Eds.), action research in practice: Partnerships for social justice in education", (pp. 47-56). London, UK: Routledge.

Sapon-Shevin, M., (2003), "Inclusion: A matter of social justice", *Educational Leadership*, 61, pp. 25-28.

Scheurich, J.J., (1998), "Highly successful and loving, public elementary schools populated mainly by low-SES children of color: Core beliefs and cultural practices", *Urban Education*, 33(4), pp. 451-491.

Scheurich, J.J., & Skrla, L., (2003), "Leadership for equity and excellence", Thousand Oaks, CA: Corwin Press.

Shields, C.M., (2004), "Dialogic leadership for social justice: Overcoming pathologies of silence", *Educational administration quarterly*, 40(1), pp. 109-132.

Shoho, A.R., Merchant, B.M., & Lugg, C.A., (2005), "Social justice: seeking a common language. In: F. English (Ed.)", *The Sage Handbook of Educational Leadership: Advances in Theory, Research, and Practice* (pp. 47-67). Thousand Oaks, CA: Sage Publications.

Theoharis, G., (2007a), "Navigating rough waters: A synthesis of the countervailing pressures against leading for social justice", *Journal of School Leadership*, 17, pp. 4-27.

Theoharis, G., (2007b), "Social justice educational leaders and resistance: Toward a theory of social justice leadership", *Educational administration quarterly*, 43(2), pp. 221-258.

Touchton, D., & Acker-Hocevar, M., (2001), "Using a lens of social justice to reframe principals' interviews from high poverty, low performing schools", *Paper presented at the Annual Meeting of the University Council of Educational Administration*, Cincinnati, OH.

Turhan, M., (2010), "Social justice leadership: implications for roles and responsibilities of school administrators", *Procedia-Social and Behavioral Sciences*, 9, pp. 1357-1361.

UN, (1948), "Universal Declaration of Human Rights", Retrieved from <http://www.un.org/en/universal-declaration-human-rights/>

UNESCO (1990), "World declaration on education for all and framework for action to meet basic learning needs", *International Consultive forum on education for all*. Paris: UNESCO.

UNESCO (1994), "The Salamanca statement and framework for action on special needs education", *UNESCO and the Ministry of education and science, Spain. Paris: UNESCO*.

Valencia, R., & Black, M., (2002), "Mexican Americans don't value education! On the basis of the myth, mythmaking, and debunking", *Journal of Latinos and Education*, 2, pp. 81-102.

Vavouras, El., (2020), "The political philosophy as a precondition and completion of political economy in the Ways and Means of Xenophon", *Dia-noesis: A Journal of Philosophy*, 9, pp. 183-200.

Vavouras, El., (2022), "The Machiavellian reality of Leo Strauss", *Dia-noesis: A Journal of Philosophy*, 12, pp. 265-273.

Vibert, A., & Portelli, J., (2000), "School leadership and critical practice in an elementary school", *Exceptionality Education Canada*, 10, pp. 23-36.

ACTIVE-PARTICIPATORY METHODS THAT RAISE THE QUALITY OF LEARNING

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Abstract: Educational reforms refer to the renewal and permanent improvement of the learning offer which the system proposes to students. In this sense, the purpose of studying English and other foreign languages as SLA (second language acquisition) during compulsory or non-compulsory schooling is to gradually form a learner with strong communicative powers, able to interact socially, in order to be effectively integrated in the context of the future professional path. This paper proposes ways in which such abilities can be acquired and used most effectively and creatively in everyday life for everyone who intends to continue the learning process at any stage of life. Nowadays, the emphasis is on procedural learning, on the structuring of modern strategies and procedures for problem solving, analysis and research, characteristic of any communicative activity. Starting from the premise that the English language lectures, from the perspective of active-participative and formative methods involved in the didactic process through academic conversation, in support of the development of students' knowledge, it is appropriate to emphasize the findings of such an integrative approach, which refer to the fulfillment of some operational cognitive and affective objectives, through specific strategies designed to lead to the achievement of general and particular skills according to the objectives set for each session.

Keywords: active-participatory methods, discovery, foreign languages, English, higher education

Introduction

Active education is connected to a higher type of learning, based on the principle of assumed language acquisition where students in interactive environments and heuristic, creative abilities can realise the level of their knowledge and a diversity of technique they can apply to problematize, understand from listening, discuss, research, and so on. It is a type of learning founded on a deep individual involvement – at all levels engages: intellectual, psychomotor, affective and volitional which facilitate the acquisition knowledge and formation or development of skills.

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As literature shows, this type of learning also provides possibilities of cooperative study through social interactions as a mutual aid. In either individual or collective learning, the capabilities supported by cognitive and emotional structures generate creative and motivational resources that can be used as essential elements in any intellectual endeavours. In some cases, some students rely more on processes such as memorization and comprehension, others on critical thinking or analysis. In every case learning leads to certain judgments according to implicit or explicit criteria applied in the development of ideas, exploration of the new knowledge and its interpretation:

Specifically, we address the issue of how to better prepare schools for the new challenges of tomorrow. Furthermore, we promote the development of a collaborative approach for teachers who are also setting an example for their students to engage in a collective learning strategy. We argue that the development of team building abilities in a sustainable active learning environment might provide some of the important skills for the future job market, such as self-discipline, critical thinking skills, team-building abilities, creative versatility and autodidacticism. We will also be discussing different levels of integration in education, going from the traditional intradisciplinary, to more integrative forms of pedagogy such as: multidisciplinary, transdisciplinary and towards holistic learning. We make the case against fragmentation in order to make education more symbiotic as the methods of active learning are pioneering new ways to encourage collaborative planning with teachers.¹

Students can become their own pedagogical regulators just as teachers used to be in the lower levels of education and with younger ages. After mastering the active-participatory methods of study, learners can organise this process themselves in an independent way, without the need of much guidance, since language acquisition turns into a motivated activity performed with full responsibility. The instructors' role is diminished accordingly to only fostering the interactive context meant to stimulate positive emotional states success, confidence in their potential, and increased desire for knowledge and a tendency towards self-improvement

¹ Graham, Charlotte and Philippe Longchamps, *Transformative Education. A Showcase of Sustainable and Integrative Active Learning*. London, New York: Routledge, 2022, pp. 1-2.

and revaluations. Independent learning is a pedagogical concept with multiple educational dimensions.

Active learners are their own initiators and organisers of their learning experiences, managing resources, able to constantly reorganize the learning resources, in a systemic manner. Active learning of a particular subject such as English essentially means carrying out specific meaningful activities with metacognition, that is, being aware of the mechanisms of their own approaches to understanding and learning. Thus, students become able to monitor and self-regulate their learning; to debate critically, to evaluate, improve and to develop customised learning activities. They actively and genuinely assume responsibility for the set personal educational goals for autonomous language acquisition by its actual usage.

In the educational act, through the development of regulations concerning teaching of adaptation skills and social affirmation along with the core subject, learners are supported to grow in their autonomy, correlated with freedom of choice, responsibility and critical thinking. Being autonomous implies that they follow their own standards by staging personal decisions with the responsibilities taken with motivation and determination. Independent activity though will get feedback from the instructor as a stimulating and corrective evaluation:

The main purpose of feedback is to stimulate students' self-regulation as a means to increase their capability in making judgments and acting upon them. Therefore, at this preparation stage, it is pertinent to decide how to provide feedback to students in group-based activities.²

One of the challenges of education has been identifying what skills are keys to a successful educational life in contemporary times. The competence to learn foreign languages can be understood as a complex set of activities that aim at knowledge, skills, values, attitudes and dispositions that support the individual to become a lifelong learner by engaging in learning opportunities. Learning to learn is the ability to persevere and persist in learning, to organize your own learning through time and information management, both individually, as well as in the

² Chan Chang-Tik Gillian Kidman Meng YewTee (ed.) Collaborative Active Learning, 2022. Practical Activity-Based Approaches to Learning, Assessment and Feedback. Singapore: Palgrave Macmillan, pp. 18.

group. This competence involves being aware of the learning process and needs, involves identifying opportunities and the ability to overcome obstacles for successful learning. This competence means earning, processing and assimilating new knowledge and skills, as well as seek and use new orientations. Learning to learn engages students to build upon the experience of learning and to apply that knowledge and skills in a variety of contexts with social outcomes stemming from a positive attitude towards participatory behaviour.

The teaching-learning process

The idea that learning can lead to profound changes at the level of the individual and communities is an important link between the core competencies and skills.

- Usefulness and enjoyment of the activities performed.
- Perception of the importance of the knowledge acquired for their future.
- Ability and control of the student to perform the tasks successfully and obtain a high grade.
- Attractiveness of the teaching methods used.
- Support and attitude of the teacher in the performance of the practice³

The author states that for people to be able to manage this tension need the training of additional skills: adaptive assimilation of technological changes, coping with ambiguity and diversity, finding and supporting community networks, managing motivation and emotion and moral responsibility. Students acquire methods of retrieving and using knowledge. They must be able to recognize and manage their own processes and learning paths, define them in simple local parameters. They need to be able to do problem-solving and use self-assessment to control the direction, intensity and level of their study.

It is assumed that, once these skills are learned, individuals possess the tools to create positive social change through active pursuit of the job opportunities. This type of education and their associated values integrated into the social context of communication is essential in

³ Francisco José García-Peñalvo María Luisa Sein-Echaluze Ángel Fidalgo-Blanco (eds.). *Trends on Active Learning Methods and Emerging Learning Technologies*. Singapore: Springer, 2022, pp. 13.

developing the competence to learn how to learn. Developing independent learning competence can enhance students' ability to apply skills and critical thinking for better academic results. Integrative thinking involves mastering a field of expertise, being creative and motivated; it involves crossing borders, making associations and syntheses, while collaboration and networking are based on social skills communication, assertiveness and tolerance. The type of learning based on the development of creative thinking allows overcoming limits, novel associations, definition and redefinition of problems in ambiguous situations with the following qualities: flexibility, originality, sensitivity to problems, the ability for communication, cooperation, empathy, assertiveness. Such strategies aiming at professional training and social innovation can be practised in projects they will implement.

Learners are acquiring valuable skills through project-based learning in these types of learning environments. In addition, this can help learners use their problem-solving skills to facilitate learning and assess learning outcomes, alternative methods for communication, and abilities in the classroom. The impact of project-based learning on learning is vast and will continue to expand over the years. Active learning and continuous engagement are crucial to understanding the evolving relationship between project-based learning and learner mastery.⁴

An important condition for acquiring these skills is insurance assuring the context in which students demonstrate the mastery of such capabilities as they develop a way of exploring their own areas of interest and expression. In order to create a framework conducive to the training of multiple skills and interest particularly concerning communication that can be manifested in an independent and innovative manner. Therefore, instructors can successfully influence positive attitudes and motivations by thorough training and effective solutions. By helping learners discover their own talents, to support teams that find solutions and identify new problems and intervention strategies. Instructors act as enabling authorities to generate accountability, independence, assertiveness and

⁴ Stephanie Smith Budhai and Ke'Anna Brown Skipwith. *Best Practices in Engaging Online Learners Through Active and Experiential Learning Strategies*. 2nd ed., New York: Routledge, 2022, pp. 36.

applied projective thinking, not resisting the change, but accepting the modern active and creative training methodology.

The use of active-participatory teaching methods is viable, easily applicable to non-technical subjects. They emphasize student expression and responsible engagement in the learning process. These methods could shift the instructors' focus from teaching exclusively centered on the particularities of the psychological processes and creating constructive and stimulating learning opportunities. Transmission of learning contents and the learning process itself can be harmonised through interactive didactic methods.

Teaching and learning methods

Active-participatory methods assume a desire to observe, explain, explore and discover. They mobilize the students' capabilities to concentrate attention, to use curiosity for heuristic learning. Active-participatory methods emphasize operational knowledge, learning through action, bringing students into direct contact with real life situations. These methods have a formative character, among which: reading independently, heuristic dialogues, learning through exploration, group discussions and debates and so on. Therefore, this type of learning is a personal activity that can be supported and strengthened by the collective. These methods focus exclusively on the learner and are decisive in training cognition and personality. Through active-participative methods the instructors are able to create situations where students are trained to use a wide range of mental processes and operations, so that they have the opportunity to use the material taught to solve the given tasks and for problem-solving. Such operations may be: observing, identifying, comparing, contrasting, classifying, categorising, organization, abstraction or generalisation etc. This means to be engaged in an active learning based on one's own activity or learning by doing:

More is not better. In-depth learning is preferable to quantity of material covered.

- Conceptual thinking is used much more often than rote memorization and drill.
- Problem-solving and sharing strategies and concepts are the best strategy.
- The person leading discussion should not supply the answer right away, so all can participate.

- Learning should be made meaningful for students⁵

Active learning engages creative productive capacities, thinking and imagination operations, appeals to mental structures and cognitive processes that the learner uses in the production of new, conscious learning.

Modern education is based on a methodology focused on action. From this point of view, the active-participative methods take the student on a journey of self-discovery and self-development. The subject is actively involved and fully engaged in the act of learning, with all possible resources with the help of heuristic methods that require practical action. Compared to the traditional methodology, for that the students remain more of a reproducer of the information presented by the instructor, by active-participatory methods they become active participants in the learning process, prepared to acquire knowledge by their own effort mobilised in relation to the given learning tasks.

The instructors' role is to organise learning, to support the students' effort and supervise how these methods are applied. Through their formative character, such methods help the development of the students' cognitive abilities in order to raise the quality of learning. Students' full engagement in the didactic activity, in the personal exploration during learning process changes the direction of the educational act towards themselves.

Conclusions

The active-participatory methods have proven their efficacy in both compulsory and non-compulsory schooling at all levels of education in combination with communicative practices that stimulate the acquisition of foreign languages as SLA. Active learning methods are modern, based on algorithmization, problematisation, heuristic exercise, brainstorming, individual or guided training with a wide applicability to variety of subjects for any stage of instruction with intuitive methods based on discovery. Unlike discovery, which has an inventive role, demonstration has a character illustrative, leading to the somewhat passive reproduction of some actions or assimilation knowledge based on intuitive sources.

⁵ Blaz, Deborah, *The World Language Teacher's Guide to Active Learning Strategies and Activities for Increasing Student Engagement*. 3rd ed. New York: Routledge, 2023, pp. 25.

REFERENCES:

Blaz, Deborah, (2023), *The World Language Teacher's Guide to Active Learning Strategies and Activities for Increasing Student Engagement*. 3rd ed. New York: Routledge.

Brazelton, G.B., (2016), *Adult Learners at Community Colleges: Influence of Technology on Feelings of Marginality and Mattering*, MI: Michigan State University.

Chang-Tik, Chan Gillian Kidman Meng Yew Tee (ed.) (2022), *Collaborative Active Learning Practical Activity-Based Approaches to Learning, Assessment and Feedback*. Singapore: Palgrave Macmillan.

García-Peñalvo, Francisco José María Luisa Sein-Echaluce Ángel Fidalgo-Blanco (eds.) (2022), *Trends on Active Learning Methods and Emerging Learning Technologies*. Singapore: Springer.

Graham, Charlotte and Philippe Longchamps, (2022), *Transformative Education. A Showcase of Sustainable and Integrative Active Learning*. London, New York: Routledge.

Rana, Usha and Jayanathan Govender (eds.) *Psychological Insights and Perspectives*, (2022), USA, Canada: Apple Academic Press Inc.

Smith Budhai, Stephanie and Ke'Anna Brown Skipwith, (2022), *Best Practices in Engaging Online Learners Through Active and Experiential Learning Strategies*. 2nd ed. New York: Routledge.

USE OF INFORMATION TECHNOLOGIES BY PRE-SCHOOL TEACHERS

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Abstract: Modern teacher training is driven by computerisation and the intensification of educational content in general. A prerequisite for the computerisation of education is the readiness of educators to use computer technologies for teaching pre-school children, which means continuous self-training of future teachers. The pre-school teacher's computer literacy is a component of his/her general pedagogical culture, the most important indicator of his/her professional competence. The use of computers as a means of teaching children in the pedagogical process of a pre-school institution leads to changes in other elements such as purpose, content, methods, forms. Therefore, an important issue is not only to study the specifics of the implementation of information technologies in the professional training of teachers in all educational sectors, but also to continuously monitor their use in professional activities and in the educational process in general. The article presents the results of the preliminary stage of the study: a survey aimed at determining the state of use of information technologies by teachers in pre-school institutions in their work with pre-school children. The results of the investigation revealed that the vast majority of pre-school teachers are at a satisfactory level of information and communication literacy training for pre-school specialists. The study revealed that correction requires both teaching content and organizational and pedagogical support for the process of training and improving the information and communication competence of preschool teachers.

Keywords: computer; information technologies; teachers, pre-school education

1. Introduction

In the modern information society, individuals are expected to actively use modern information technology tools at work and at leisure. Children are an integral part of a digital society, and information technology is part of their daily lives and the cultural context in which they grow up. It is therefore necessary to let children enter the world of information technology as early as possible, as they are the best preparation for future knowledge and learning in the life of the information society. In this context, the educational environment of pre-

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school institutions must be positive, encouraging and equipped with good information technology tools. In addition, it is necessary for teachers working with pre-school children to actively use these tools in their work, which is determined by the competences of pre-school teachers in the appropriate and purposeful use of ICT tools in their daily work.

2. Technical and methodological designs

The use of computers as a means of teaching children in the pedagogical process of a pre-school institution leads to a change in other elements of the process (purpose, content, methods, forms). This means that several groups of problems have to be solved: general-medical, methodological and informational (involving the computer as a means of instruction), professional and organisational (each involving the solution of corresponding theoretical and practical tasks). The whole set of these problems must be considered.¹ According to the Romanian pedagogue I. Bontaș, educational technology is a system of theories, methods, techniques, means, forms of organization and efficient conduct of the educational process.²

Sorin Cristea, defines educational technologies as a "set of techniques and practical knowledge designed to organise, test and ensure the functionality of the school institution at systemlevel".³ In the view of researcher Globa A., the calculator is a didactic tool that integrates into the context of other tools, amplifying their instructive and formative values, complementing them when necessary. In this sense, the random use of the computer at an inappropriate time during the activity, without a specific purpose, leads to boredom, monotony, ineffective learning through absenteeism of some pre-school children, non-fulfilment of the objectives of the activity, and can produce repulsion towards this modern teaching-learning-evaluation tool.⁴ Excessive individualisation of learning also leads to a challenge to the preschool-teacher and preschool-preschooler dialogues, to the isolation of learning in its psychosocial context, and to preschoolers' mental activity being diminished and

¹ C. Cucos, *Pedagogy*, Iași, Polirom, 1998, p. 80

² I. Bontaș, *Pedagogy: Treatise*, Bucharest, Ali Publishing House, 2001, p. 32.

³ S. Cristea, *Dictionary of Pedagogical Terms*. Bucharest, The Didactic and Pedagogical Publishing House, 1998, p. 479.

⁴ A. Globa, *Methodical approaches to the implementation of new information technologies in the process of studying the university subject „Programming Techniques”*. PhD. thesis in pedagogical sciences, Chisinau, 2016, p. 156.

directed step by step. However, researchers Gremalschi A., highlight many advantages of using the computer in the educational process:

- ❖ Stimulate logical thinking and imagination;
- ❖ Developing an independent working style; Mobilising psychomotor functions through the use of computers;
- ❖ Development of auditory/visual senses;
- ❖ Training useful practical skills;
- ❖ Providing continuous feedback, the teacher having the possibility to redesign the activity according to the previous sequence;
- ❖ Ensuring the choice and use of appropriate strategies for solving various applications;
- ❖ Developing thinking so that, starting from a general way of solving a problem, the pre-schooler finds the answer to a concrete problem by himself;
- ❖ Preparing pre-school children for a society based on the concept of lifelong learning;
- ❖ Stimulating innovative learning capacity, adaptable to rapidly changing social conditions;
- ❖ Determining a positive attitude of pre-schoolers towards the field of education in which the computer is used and towards the moral, cultural and spiritual values of society;
- ❖ Improving pre-schoolers' motivation in the learning process.⁵

Integrating new technological means into the educational process does not mean replacing traditional pedagogical principles, but adding new methods and means of instruction. Firstly, the concept of information technology continues to describe the teaching-learning-assessment triangle, since it aims to facilitate the communication of new knowledge, facilitate its consolidation and automate assessment actions. Secondly, the design of teaching, learning and assessment activities using information technologies follows principles similar to the design of a traditional activity, which is "the activity of anticipating the value of the results of education/training, organised, planned and carried out by optimising the relationship between content-methodology-assessment objectives within a

⁵ A. Gremalschi, *Modernization of pre-school education through large-scale implementation of information and communication technology*. In: *Journal of Educational Theory and Practice*, no.6 (64, Chisinau, 2010, p. 2-5.

given context at the level of the education system and process".⁶ Thus, the design of teaching activity assisted by information technologies goes through the following stages:

1. setting objectives;
2. determining the content;
3. application of the methodology (of the strategies pursued - methods, means, materials);
4. establishing the assessment methods.⁷

As regards operational objectives, they must express "identifiable, visible and concrete"⁸ behaviours. Summarising the operationalisation techniques of R.F. Mager and G. De Landsheere, the formulation of objectives requires the following conditions to be met:

- a) naming the expected behaviour;
- b) specifying the product of the behaviour;
- c) specification of the conditions under which the behaviour is to occur;
- d) definition of acceptable performance criteria.⁹

Since operational objectives describe "concrete and controllable achievements"¹⁰ they are usually expressed by the use of action verbs. In this context, an innovative element of unquestionable usefulness for teachers of pre-school children is Prensky's reconfiguration of the verbs present in the formulation of operational objectives, by associating them with the technological means available. The classification of these verbs has not been carried out recently, as they can be found in Bloom's Taxonomy (dating from 1956).¹¹

⁶ S. Cristea, M. Bocos, *Designing the school (chapter)*, in Potolea, D., Neacșu, I., Iucu, R.B., Pânișoară, I-O. (coord.), 2008, p. 363.

⁷ A. Adăscăliței, *Computer assisted instruction: computer didactics*. Iași, Polirom, 2007.

⁸ C. Cucos, *Pedagogy*. Iași, Polirom, 2006, p. 316

⁹ C. Cucos, *Psycho-pedagogy for final exams and teaching degrees*, Iasi, Polirom, 2005.

¹⁰ D. Potolea, *Theory and methodology of educational objectives (chapter)*, in Cerghit, I., Vlăsceanu, L. (coord.) *Course in pedagogy*. Bucharest: Tipografia University Bucharest, 1988.

¹¹ D.R. Clark, *Bloom's Taxonomy of Learning Domains*, 1999.

La: <http://www.nwlink.com/~donclark/hrd/bloom.html>

Table 1.1. ICT advantages in vocabulary development for pre-schoolers and teachers

ICT - a tool to support teachers in carrying out the following tasks:	ICT - a tool to support pre-schoolers in carrying out the following tasks:
-improving activity design through learning platforms	-engaging and motivating pre-schoolers to access learning resources online
-making teaching more effective at the design, implementation and evaluation stages	enabling pupils to improve their vocabulary
-use of wide-area and high-speed communications network	-maintaining the permanent preschool-teacher relationship
-developing tools and resources to support the creation of a strategic vision for teaching, learning and assessment	

The changes brought about by developments in information technologies are not only manifesting themselves in the areas for which they were originally designed, but are also bringing about transformations in other spheres of individual life and activity. In this world where the only thing that remains unchanged is change, education must integrate and adapt its offerings to meet the new generation, constantly updating its aims and resources so as to respond to new challenges and at the same time provide learners with effective work skills and tools.¹²

Children's sources of information have changed, with an emphasis on creativity and conscious participation in their own education. Quality in education has also forced a reconsideration of the teacher's educational approach, so that the teaching strategies developed are centred on learning and, specifically, on the learner. This is where modern teaching technologies come in, stimulating creativity and based on knowledge and respect for the child's age and the level of development of their creative potential.¹³

¹² G. Balint, *Modern concepts on the use of information technologies in the teaching-learning-assessment process*. Bacău, 2008, p. 8:

<http://cadredidactice.ub.ro/balintgheorghe/files/2011/03/conceptemoderne-privind-utilizarea-tehnologiilor-informationale-final.pdf>

¹³ D. Antoci, I. Lupașcu, *Creativity of preschoolers through the prism of modern teaching technologies*. In: *Higher education: traditions, values, perspectives*, 29-30 September 2020, Chisinau, 2021, p. 7-17:

https://ibn.idsi.md/ro/vizualizare_articol/143669

3. Experimental study

The qualitative focus group method was used in the research, initially on a group of 15 female teachers from different kindergartens in Bucharest, aged between 32 and 58 in order to find out their opinion on the integration of information technologies in preschool learning. The focus group is a qualitative research method that consists of interviewing a group of people simultaneously, most often about their opinion on a concept, idea, product, etc. The group is interactive, where participants are free to communicate with each other and the researcher either guides the discussion or notes or records participants' comments. The focus group belongs to the category of group interviews and can be semi-structured or structured, depending on how strong the moderator's role is in leading the discussion, by using or not using pre-determined research questions. Jupp defines focus-group as "focusing on finding out the thoughts and experiences of others. When participants in a focus group interview share an interest in the topic of discussion, their interaction can provide information about how they relate to the topic and to each other."¹⁴ Among the characteristics of the focus group are the following: it has a constructed character (the group is selected according to the criterion of homogeneity, and the space and time are determined before the focus group takes place); it has a focused and structured character (the discussion is centred around a particular theme, following the interview guide prepared by the researcher); the discussion is led by a moderator and is recorded as it takes place, and the purpose of the focus group is most often to collect data on people's opinions or attitudes on a particular topic.

3.1. Research problem

Digital technology in general is an indispensable tool in school education at all levels. The topicality of the subject, a knowledge-based society implies its emancipation and thus the transition from traditional to modern education. Teachers need to be properly trained: digital competence in the formal teaching of the subjects that make up the school curriculum at each level. In this context we are talking about the assessment of teaching skills using the digital system, the adoption of digital technology in the classroom as a modern learning tool. The

¹⁴ V. Jupp, (coord.), *Dictionary of social research methods*, Iași, Polirom Publishing House, 2010, p. 209.

European Community supports the widespread use of digital educational resources in both urban and rural areas.

3.2. Qualitative research on teachers. Conducting the focus group.

The aim of the research is to identify teachers' views on the integration of information technologies in pre-school education.

The objectives of this research are:

O1. To identify teachers' opinions on the integration of information technologies in preschool learning.

The hypotheses corresponding to the objective are:

I1. If teachers are asked their opinion on the integration of video games in school learning, they will show a positive attitude towards this approach. (null hypothesis for I1: Teachers will have a negative attitude towards the integration of video games in school learning.

Data collection methods, techniques and tools

During the research we used one method:

(1) Focus group method

With this method we collected qualitative data for the analysis, which can confirm or refute the hypotheses.

3.3. Qualitative method:

The focus-group method

In the instrumentation of the present research, a focus-group activity was carried out in the pre-testing stage. Three main phases can be distinguished for the completion of this activity:

- focus-group organisation phase,
- the focus-group conduct phase
- analysis and interpretation of the focus group results.

During the phase of organizing the focus group activity, the participants were selected from among the pre-school teachers. They voluntarily participated in the proposed debate. The location was chosen, and the date and time of the meeting with the volunteers were fixed. In advance of our meeting, we reconfirmed our meeting in the „Petre Ghelmez" Secondary School at 17:30 on 20.12.2023. The classroom was bright, spacious and created an optimal environment for the debate on the proposed theme: the use of digital technology in the educational process. There were 15 participating teachers who volunteered, from the pre-school

cycle. We met at the scheduled time at the proposed location. The subjects participating were given the topic of the debate in advance.

Phase Two: The focus group activity took place over one hour and used an open-ended interview guide presented orally. The technique used in the research aims to:

- see the degree of teachers' involvement in learning activities using digital educational resources;
- to know the motivation of teachers to use new information technologies in the learning process;
- to investigate teachers' adaptation to new techniques used as learning support in the classroom;
- in order to be able to outline the final form of the questionnaires for the purpose of the quantitative research in the paper.

The interview grid contained open-ended questions addressed to the focus members. The inverted funnel technique¹⁵ was used, in which the general issues (attitudes towards the use of digital educational resources in general) were taken as a starting point and the particular issues (attitudes towards the use of digital textbooks) were taken as a starting point. The interview guide contained a total of 5 discussion topics and 17 questions.

Teachers were initially asked if they had ever used new technology in their classroom activities and if so, what kind of technology they used. 80% of the teachers interviewed (12 out of 15) responded positively, with the remaining 3 stating that they had not used technology because the classrooms in which they worked either did not have such tools or they did not work. The remaining 80% said that they used the following technology: video projector, computer, TV, interactive whiteboard

Phase three: analysis and interpretation of the focus group results.

The results of the focus group analysis highlighted the following conclusions:

✚ In the use of information technologies in the classroom there is a limitation due to the fact that there is not the necessary infrastructure in each classroom (computer, video projector).

✚ Teachers consider that training is needed to learn how to integrate IT in the classroom.

¹⁵ A. Bulai, *Focus group in social research*. Bucharest, Paideia Publishing House, 2000

✚ The use of educational software resources is easy, but it is more difficult for them to organise the work in such a way as to include these new resources.

✚ The most commonly used words to describe the advantages of using IT in the classroom are "motivation", "understanding", "learning".

✚ The feelings expressed in the case of using modern educational resources are on the one hand: the joy of seeing children excited, the positive emotion given by the materials themselves, and on the other hand frustration due to the lack of infrastructure and training, the fear of equipment failure (partially manifested in the subjects).

✚ The feelings mentioned in the case of using classic educational resources are the comfort given by the experience; the frustration that there are children who no longer react positively and are uninvolved.

4. Conclusions

With the entry of children into the formal education system a large responsibility in the digital training of children in the system lies with the teacher. In this context, the teacher is obliged to train for digital literacy. In this sense, our research shows that training teachers to acquire digital skills that leads to better use of digital skills in the classroom implies increasing the motivation of students, increasing the positive impact that the use of digital technology in the educational process has. The analysis of the collected data revealed that for pre-school education, there is a desire for training in the use of digital technology, (47.7%), while 33.30% stated that they do not have digital skills. The conclusion is that there is even among teachers who declare digital competences, a desire for further training, i.e. in conclusion preschool teachers are open to the use of new, digital methods and tools. This leads to the conclusion that at kindergarten level there is a willingness to use new digital methods and tools. The difference of opinion among teachers can be explained by the fact that the Romanian Ministry of National Education and Scientific Research has initiated the process of including digital in the classroom starting with pre-school. In order for the pre-school education process to benefit from the application of new technologies, it was necessary to introduce digital tools in kindergarten as well. Training teachers to acquire digital skills can have a positive impact on the children. Pre-school teachers consider that the use of digital technology in the classroom develops visual memory (66%), increases motivation (61.7%), increases pupils' attention (53.8%), but that it puts deep learning in last place

(12.4%). Teachers consider that there are advantages as well as disadvantages in the use of digital technology; disadvantages that could negatively mark the pre-schooler. Among these, kindergarten teachers rank in first place the favouring of a "possible dependence on the use of devices" for 71.10% of respondents, i.e. 66.7%. As regards teachers' attitudes to the inclusion of information technologies in pre-school learning, teachers agreed with their introduction during kindergarten activities. However, they are not sure about the feasibility of this approach in the near future due to several factors, such as the lack of the necessary equipment or the lack of training of teachers to work with information technologies.

REFERENCES:

Adăscăliței, A., (2007), *Computer-assisted instruction: computer didactics*. Iași, Polirom.

Antoci, D., Lupașcu, I., (2020), *Creativity of preschoolers through the prism of modern teaching technologies*. In: *Higher education: traditions, values, perspectives*, 29-30 September Chisinau: UST, 2021, p. 7-17,

https://ibn.idsi.md/ro/vizualizare_articol/143669

Balint, G., (2001), *Modern concepts on the use of information technologies in teaching and learning assessment* Bacău, p. 5

<http://cadredidactice.ub.ro/balintgheorghe/files/2011/03/concepte-moderne-privind-utilizarea-tehnologiilor-informationale-final.pdf>

Bontaș, I., (2001), *Pedagogy: Treatise*. Bucharest: Ali Publishing House, p. 32.

Bulai, A., (2000), *Focus group in social research*. Bucharest: Paideia Publishing House.

Clark, D.R., (1999), *Bloom's Taxonomy of Learning Domains*, At: <http://www.nwlink.com/~donclark/hrd/bloom.html>

Cucoș, C., (1998), *Pedagogy*, Iași, Polirom, p. 80.

Cucoș, C., (2005), *Psychopedagogy for final exams and teaching degrees*, Iași: Polirom.

Cucoș, C., (2006), *Pedagogy*, Iași, Polirom.

Cristea, S., (1998), *Dictionary of Pedagogical Terms*. Bucharest, The Didactic and Pedagogical Publishing House, p. 479.

Cristea, S., Bocos, M., (2008), *Designing the school (chapter)*, in Potolea, D., Neacșu, I., Iucu, R.B., Pânișoară, I-O (coord.), p. 363.

Globa, A., (2016), *Methodical approaches to the implementation of new information technologies in the process of studying the university subject „Programming techniques”*. PhD. thesis in pedagogical sciences, Chisinau, p. 156.

Gremalschi, A., (2010), *Modernization of preschool education through large-scale implementation of information and communication technology*. In: *Journal of Educational Theory and Practice*, no.6/64, Chisinau, p. 2-5.

Jupp, V., (coord.)(2010), *Dictionary of social research methods*. Iași, Polirom, p. 209.

Potolea, D., (1988), *Theory and methodology of educational objectives (chapter)*, in Cerghit, I., Vlăsceanu, L. (coord.) (1998), *Course of pedagogy*. Bucharest, Tipografia University Bucharest.

FEATURES OF DENDRONYM MOTIVATION IN LATIN AND UKRAINIAN: A COMPARATIVE ASPECT

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Abstract: Nowadays, comparative, polyconfrontative and cognitive-onomasiological studies of dendronyms as one of the oldest vocabulary layers are relevant areas of modern linguistics. This study aims to determine the etymology of the scientific names of cultivated trees and shrubs, to reconstruct the motivators of the dendronyms nomination. Etymological analysis of dendronyms and the comparative method were used in the research, the material was 16 binomial names. The conducted analysis proved that the process of nomination of trees and shrubs in Latin and Ukrainian is mostly based on the mechanisms of propositional and dictum motivation, which fixes true knowledge about the object in the name structure. In both Latin and Ukrainian, the reconstruction of the motivators of many names of trees and shrubs remains hypothetical. Since the process of domestication of trees and shrubs has a long history, many dendronyms names in both Latin and Ukrainian have Proto-Indo-European roots.

Keywords: motivation, nomination, etymology, dendronym, scientific names, trees, shrubs

Introduction

Dendronyms are one of the oldest layers of vocabulary. Today, their research continues mainly in the cognitive-onomasiological aspect (Kalko, 2003; Shestakova, 2010; Usyk, 2017; Waniakowa, J. 2021, etc.) and polyconfrontational, aimed at comparing plant names in several unrelated languages (Urniaż, 2021; Caceres-Lorenzo & Salas-Pascual, 2022; Blažek, 2018; Waniakowa, 2020, etc.). As Blažek notes,

tree-names represent an important source of information for the application of linguistic archaeology. Their etymological analysis, in the wider perspective of neighboring dendronymical systems, offers extraordinarily valuable results that may be used to confirm or exclude the internal influence of substratal languages, external

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influence of ad stratal languages or the role of hypothetical distantly related languages, leading to a determination of the homeland of the given language entity.¹

On the other hand, the cognitive-onomasiological analysis of plant names involves revealing patterns in the selection of motivational signs and allows establishing a conceptual structure that determines the nomination mechanism, thereby laying the groundwork for the separation and further cognitive-onomasiological reconstruction of components².

A comprehensive analysis of the names of dendronyms with elements of etymology was carried out in the works of scientists of the National University of Life and Environmental Sciences of Ukraine (Kharchenko, 2019; Shynkaruk, Vakulyk, Kushnir et al., 2019; Shynkaruk, Balalaeva, & Vakulyk, 2017). However, the origin of the scientific names of trees and shrubs remains insufficiently understood and requires further research.

The aim is to determine the etymology of the scientific names of cultivated trees and shrubs, to reconstruct the motivators of the nomination of dendronyms.

We used etymological analysis of dendronyms, comparative method and generalization in the study. The material was 16 binomial names of trees and shrubs, selected from the work "Cultural Plants of Ukraine"³. The lexicographic base of the study are such etymological dictionaries: "Etymological dictionary of Latin and the other Italic languages"⁴, "Etymologisches Wörterbuch der botanischen Pflanzennamen"⁵, "Etymological dictionary of the Ukrainian language"⁶.

¹ V. Blažek, Indo-European Dendronyms in the Perspective of External Comparison. *Journal of Indo-European Studies*, 2018, vol. 46 (1/2) Spring-Summer, p. 2.

² L. Usyk, *Kohnityvno-onomasiolohichna rekonstruktsiia otsinnoho komponenta u semantytsi fitonimiv (na materialy nazyv likarskykh roslin u nimetskii, anhliiskii, rosiiskii ta ukrainskii movakh)* [Cognitive and onomasiological reconstruction of the evaluative component in the semantics of phytonyms (on the material of the names of medicinal plants in German, English, Russian and Ukrainian languages)]. (Doctoral dissertation). Kyiv, 2017, p. 73.

³ V.A. Nechytailo, V.A. Badanina & V.V. Hrytsenko, *Kulturni roslyny Ukrainy* [Cultivated plants of Ukraine]. Kyiv: Fitosotsiotsentr, 2005, p. 5.

⁴ M. de Vaan, *Etymological dictionary of Latin and the other Italic languages*. Leiden Indo-European etymological dictionary series. Vol. 7. Brill, 2016.

⁵ H. Genaust, *Etymologisches Wörterbuch der botanischen Pflanzennamen*, 3rd ed. überarbeit. und erw. Aufl. Hamburg: Nikol, 2012.

⁶ *Etymolohichniy slovnyk ukrainskoi movy* [Etymological dictionary of the Ukrainian language] (Vol. 1 -6). Kyiv: Naukova dumka, 1982-2012.

Etymological analysis of dendronyms in Latin and Ukrainian

According to Kalko, the plant names reflect a wide range of information channels: auditory, visual, tactile, olfactory, gustatory, as well as the axiology and feelings of the people; elucidating the peculiarities of the selection of motivators when creating phytonyms makes it possible to get to know more deeply both the nominative mechanisms in general and their priorities in ethnic consciousness in particular⁷.

Let's look at specific examples.

Malus domestica – Apple (Яблуня домашня).

Latin *malus* 'apple tree', *malum* 'apple' comes from Greek *μηλέα* (*mēléa*), *μᾶλον* (*mēlon*) 'apple' of unclear etymology. Genaust believes that this is a borrowing from the Mediterranean language, cf. the name of the island *Melos*⁸. Fenwick reconstructs the Proto-Indo-European **méh₂lo-* 'cultivated tree, grape' with variant **móh₂lo-*, cf. Hittite *māhlaš* 'grapevine', Lydian *μῶλας* 'sort of wine', etc. and considers them thematized from an acrostatic noun root in **móh₂l-* 'type of culturally important plant'. She further considers **móh₂l-* as a possible archaic **-l-* from **meh₂-* 'to grow, increase, mature, be fruitful'⁹. In general, the word *malum* was used to refer not only to apples, but also to any fruit from a tree.

The specific epithet *domestica* (adj. *domesticus*, *a, um* 'domestic') < Latin *domus*, *us f* 'house, home' indicates that it is a cultivated species.

The Ukrainian names *яблуня*, *яблуко* (Proto-Slavic **ablonь*, *ablъko*) come from the Indo-European **āblu-*. As stated in the Etymological Dictionary of the Ukrainian Language, "it was assumed that originally it was an Indo-European base with *-l-*; hypothesis about the connection of the word with the Indo-European **albho-* 'white', as well as the derivation of the Proto-Slavic *ablъko* from Celtic or Germanic languages is doubtful; also an assumption was made about the substrate origin of the word in Indo-European languages"¹⁰.

⁷ V.V. Kalko, *Kohnityvno-onomasiolohichniy analiz nazv likarskykh roslin v ukrainskii movi* [Cognitive Onomasiological analysis of Official Plants' Names in the Ukrainian Language] (Dissertation thesis). Odesa, 2003, p. 4.

⁸ H. Genaust, *op. cit.*, p. 236.

⁹ R.S. Fenwick, Descendants and ancestry of a Proto-Indo-European phytonym **meh₂l-*. *The Journal of Indo-European Studies*, 2016, 44, p. 441-456.

¹⁰ *Etymolohichnyi slovnyk ukrainskoi movy* [Etymological dictionary of the Ukrainian language], vol. 6, p. 530.

Armeniaca vulgaris – Common apricot (Абрикос звичайний).

The Latin name *armeniaca* is a substantive feminine adjective from *armeniacus*, *a*, *um* 'Armenian', which remained from the term *armeniaca arbor* 'apricot tree'. The Romans called the fruit of this tree *malum armeniacum* 'Armenian apple, Armenian fruit' or *prunum armeniacum* 'Armenian plum', the Greeks – *melon armeniakon* 'Armenian fruit', indicating its probable origin from Armenia). In general, the apricot tree reached Greece and Italy in 63 AD from the Caucasus or Iran or after the Roman-Parthian wars, although it was cultivated in China in the 3rd century BC. Genaust believes that the name is a translation of Syriac *hazzürä armenäyā* 'Armenian apple', which through Assyrian *armānu* 'pomegranate' is probably only secondarily related to Armenia¹¹.

The name *абрикос* and its variants began to appear in Ukrainian sources in the XIX - early 20th century¹². The word is borrowed from the Dutch language: *abrikoos* through French (*abricot*), Spanish (*albercoque*) or Portuguese (*albricoque*) came from Arabic *al barqōk* < Greek *πραϊκοκκιον* (*πραϊκόκιο*) < Latin *praecox* (*praecoquus*) 'precocious, early'¹³. This can be explained by the fact that apricots ripened earlier than peaches. Pliny the Elder in his "Naturalis Historia" used the term *praecoqua* to distinguish the *apricot* ("early-ripening fruit") from the peach ("lately-ripening fruit").

Persica vulgaris – Peach (Персик звичайний).

The Latin name *persica* < adj. *persicus*, *a*, *um* 'Persian'; cf. Latin *malum Persicum* 'Persian apple' < Greek *melon persikon*, *Persike melea*; *persicus* < *Persikos*¹⁴; the plant originates from China, but came to Europe through Persia.

The Ukrainian name *персик* is borrowed from Latin *persica* through German *persik*¹⁵.

¹¹ H. Genaust, *op. cit.*, p. 59.

¹² I.V. Sabadosh, *Istoriia ukrainskoi botanichnoi leksyky (XIX - pochatok XX st.)* [History of Ukrainian botanical vocabulary (XIX – beg. XX)]. Uzhhorod: UNU, 2014, p. 100.

¹³ *Etymolohichnyi slovnyk ukrainskoi movy* [Etymological dictionary of the Ukrainian language], vol. 1, p. 39.

¹⁴ H. Genaust, *op. cit.*, p. 285.

¹⁵ *Etymolohichnyi slovnyk ukrainskoi movy* [Etymological dictionary of the Ukrainian language], vol. 4, p. 353.

Prunus domestica – Plum (Сли́ва звича́йна).

The Latin *prunus* 'plum (tree)', *prunum* 'plum (fruit)' through Greek *πρῶνῃ* (*prounos*, *prounon*, *proumnon*), probably are borrowed from the languages of Asia Minor¹⁶.

The Ukrainian names *сли́ва* < Proto-Slavic *sliva* (**slivъka*), the origin of which has not been finally clarified; it is mostly interpreted originally as the name of a bluish colour and in this case it is compared with Latin *līvos* 'bluish', *līvēre* 'having a bluish colour', *līvor* 'bluish colour', Upper Sorbian *slēhe*, *slēwa* < **sloi-kōŏ*, Lower Sorbian *Schlehe* < **slai-hō*, *sw. slå(n)* 'blacktorn', tracing to Indo-European **slī-ōŏ-* 'bluish'¹⁷.

Prunus divaricata – Spreading Plum (Али́ча).

The scientific plant name is translated as 'spreading plum'. The specific epithet *divaricatus*, *a*, *um* 'sprawling, spreading < Latin *divaricare* 'to spread, stretch'.

The Ukrainian name *али́ча* is borrowed from the Azerbaijan *aluča* 'apple, small plum' coming from Persian *aluče* with the same meaning¹⁸.

Pyrus communis – Common pear (Гру́ша звича́йна).

Genaust believes that the Latin *pyrus* < *pirus* 'pear (tree)', *pyrum* < *pirum* 'pear (fruit)' are borrowings from the Mediterranean language¹⁹, the original form of which (*a*)*pisom* also appears in Greek *ἄπιος* (*apios*) and *ἄπιον* (*apion*).

In the Etymological Dictionary of the Ukrainian Language, it is assumed that Ukrainian *гру́ша*, Proto-Slavic *gruša* < **grousja*: *kruša* < **krousja* are derived from the Proto-Slavic *grušiti* < **grousi*, *krušiti* 'to crush, pound'; the opinion about Balto-Slavic borrowing from Iranian languages is a less convincing²⁰.

Cerasus vulgaris – Sour cherry (Ви́шня звича́йна).

The Latin name *cerasus* comes from Greek *κερασός* (*kerasos*) 'bird cherry', which is probably together with Greek *kranos*, Latin *cornus*

¹⁶ H. Genaust, *op. cit.*, p. 305.

¹⁷ *Etymolohichnyi slovnyk ukrainskoi movy* [Etymological dictionary of the Ukrainian language], vol. 5, p. 298.

¹⁸ *Etymolohichnyi slovnyk ukrainskoi movy* [Etymological dictionary of the Ukrainian language], vol. 1, p. 61.

¹⁹ H. Genaust, *op. cit.*, p. 311.

²⁰ *Etymolohichnyi slovnyk ukrainskoi movy* [Etymological dictionary of the Ukrainian language], vol. 1, p. 607.

'cornelian cherry, dogwood' is borrowed from the Thracian-Phrygian language. Genaust rejects the version regarding the origin of plant name from the Greek name of city *Κερασός* (*Cerasus*)²¹. Thus, the Greek root of the word 'cherry', *κεράσος* (*kerasós*), predates the name of the city, and the ultimate origin of the word cherry (and thus the name of the city) is probably from a Pre-Greek substrate, likely of Anatolian origin, given the intervocalic *σ* in *Κερασός* and the apparent cognates of it found in other languages of the region.

The specific epithet *vulgaris*, *e* 'common, widespread, inherent in or pertaining to common people' comes from *vulgus* 'the multitude, the masses'.

The Ukrainian name *вишня* < Proto-Slavic **vishnja*, from which also come Polish *wiśnia*, Czech *višně* (fruit) and *višeň* (tree), Slovak *višňa*, Upper Sorbian *wišeń*, Lower Sorbian *wišňa*, Serbian *višnja/višnja*, Croatian, Slovenian *višnja*. Proto-Slavic **vishnja* is considered to be related to German *Weichsel* 'cherry', Latin *viscum* 'bird glue', Greek *Ιῆος* 'bird glue', 'mistletoe'. All these words derive from Proto-Indo-European **uiks-inja*, derives from **uiks* 'mistletoe and other trees that secrete glue'²².

Cerasus avium – Wild cherry (Черешня).

The Latin name translates literally as a 'bird cherry'. The specific epithet *avium* is the genitive plural form of Latin *avis*, *is f* 'bird' – cherry fruits are very fond of birds²³.

The Ukrainian name *черешня* < Proto-Slavic **čeršnja* (**čerša*), the etymology of which is not entirely clear; most etymologists consider it a borrowing from the Latin *cerasus* (*ceresia*) 'cherry'. The form **čers'na* (with -*ьn-*) probably arose under the influence of the name *višnja*; there is also an attempt to connect Proto-Slavic **čeršja* with the Thracian-Phrygian name of cherry, presented in Greek *κέρασος* 'cherry' < Indo-European **k(w)erəs-* 'dark, black'; the possibility of borrowing the word from the Akkadian language is also accepted (cf. Akkadian *karshu* 'fruit with pit') as well as mediation of Romansh (*ceriéscha* 'cherry') and Bavarian (*chersse* 'cherry')²⁴.

²¹ H. Genaust, *op. cit.*, p. 311.

²² *Etymolohichnyi slovnyk ukrainskoi movy* [Etymological dictionary of the Ukrainian language], vol. 1, p. 387.

²³ S.P. Hrytsenko, & O.Y. Balalayeva, *Latin language for the students-agrobiologists: manual*. Kyiv, Tcentr uchbovoi literatury, 2008, p. 156.

²⁴ *Etymolohichnyi slovnyk ukrainskoi movy* [Etymological dictionary of the Ukrainian language], vol. 1, p. 305.

Cydonia oblonga – Quince (Аї́ба до́взасма).

The Latin name of the tree is *cydonia* (vulgar: *qudenaea*) 'quince', and its fruits *mala cydonia*, as well as *cotoneum malum* < Greek *κυδώνια* 'quince', *μηλοκυδώνιον* (*mēlokudōnion*) and *kydonion melon*, *kodymalon*, literally 'Kydon apple'. The name is associated with the name of the city *Κυδωνία* (*Kydonia*, *Kudōnía*) in Crete, where the plant has been grown since ancient times. But not all researchers share this view: Beeks believes that it comes from an older Anatolian word, and that the connection with Cydonia is a folk etymology. He also notes that there was a *Kithonion* on the Lydian border. Genaust believes that the words come from the language of Asia Minor (the fruit was imported from the Caucasus region) and was later named after the city *Kydonia* (Greek *Kydōnia*) in Crete²⁵. The homeland plants are considered Persia, Anatolia and Greece; the Greeks probably imported grafts from Crete for their native plants, hence the name.

The specific epithet *oblonga* (adj. *oblongus*, *a*, *um* 'oblong') < Latin prefix *ob-* + *longus*, *a*, *um* *f* 'long' by the shape of fruits and leaves.

The Ukrainian name *аї́ба* is borrowed from the Crimean Tatar or Turkish language; Crimean Tatar *аї́ба*, Turkish *ayva* are related to Azerbaijan *heiva*, ancient Turkic *aiva*, *ajva* with the same meaning²⁶.

Sorbus aucuparia – European mountain ash (Горобина звичайна).

Gennaust derives Latin *sorbus* 'service-tree' from Proto-Indo-European **ser-*, **sor-* 'red, reddish-brown'²⁷. Vaan believes that the connection with *sorbalina* 'rose hip, blackberry', Lithuanian *serbenta*, *serbentas* 'redcurrant, blackcurrant', *sirbti* 'to ripen' is possible but does not point Proto-Indo-European root **sVr-* 'red', rather, in non-Indo-European **sVrb-* 'berry'²⁸.

The specific epithet *aucuparia* is the feminine of adj. *aucuparius*, *a*, *um*, which derives from Latin *auceps*, *aucipis* 'bird catcher' or *aucupari* 'to catch birds' < *avis* 'bird' + *capere* 'to catch' and describes the use of the fruit as bait for fowling.

The Ukrainian name *горобина* < Proto-Slavic **arębina*, **ęřębina*, **erębina* or *řębina* (with a another vocalism) derived from Proto-Slavic **arębъ*, **ęřębъ*, **erębъ* 'partridge; mountain ash', or **řębъ*. Most likely, early Proto-Slavic

²⁵ H. Genaust, *op. cit.*, p. 134.

²⁶ *Etymologichnyi slovnyk ukrainskoi movy* [Etymological dictionary of the Ukrainian language], vol. 1, p. 53.

²⁷ H. Genaust, *op. cit.*, p. 344.

²⁸ M. de Vaan, *op. cit.*, p. 576.

*are-m-b(h)-, *ere-m-b(h): *re-m-b(h) – with a nasal infix, related to Indo-European *ere-b(h)-, *oro-(b)h- to denote animals or trees of dark or red colour (in Slavic languages, especially the heterogeneous, variegated colour); cognated to Lithuanian *jerube*, *jerūbė*, *irbe*, *jerbe* [*jārubė*, *jeru(m)be*] 'grouse', Latvian *irbe* 'partridge', *erpf* 'dark', *iarpr* 'brown', *iarpe* 'grouse', possibly also Greek *ὀρφνός* 'dark, dark red'; the oldest Ukrainian forms obviously are *oryábyna* < *oryab < Proto-Slavic *erēb-ina, as well as *ryabyňa* < *rēbina with a zero vocalism degree of the first syllable; other forms are secondary with prosthetic *z-*, *β-* or close to the word *зоробѣць* [*βερεβέϋ*]; a less likely is approximation of the word with Lithuanian *ráibas*, *raĩbas* 'variegated' or the connection of the original *jarēbъ with the Proto-Slavic name of spring *jarь; as well as the separation of the name *зоробина* from *ērēbъ and its connection in the reconstructed form *erēbъ from Latin *sorbus*, German *Eberesche*, *Aberesche*, which are considered as borrowings from the Proto-Indo-European substrate²⁹.

Vitis vinifera – Common grape vine (Виноград справжній).

Vaan reconstructs the Proto-Italic *witi~ < Proto-Indo-European *uhii-ti-, derived from the root *uh- i- 'to weave, wrap', hence 'weaving'³⁰. Some researchers reconstruct this Proto-Indo-European root as *wéh₁itis 'that which twines or bends, branch, switch' from *weh₁y- 'to turn, wind, bend' or *ueit- 'flexible branch, whip, tendril, willow' < *qeī- 'twist, bend, weaving'.

The specific epithet *vinifera* (*vinifer*, *a*, *um*) 'wine-producing' derives from Latin *vinum* 'wine' + *-fer* 'carrying'.

The Ukraine name *виноград* comes from the Old Slavic language, in which it was calque Gothic *weinagards* 'vineyard', derived from the roots *wein-* 'wine' and *gard-* 'garden', related to Proto-Slavic *gord- 'town', on the East Slavic soil the meaning of the second component has been lost and the word is perceived as uncompounded³¹.

Morus alba – White mulberry (Шовковиця біла).

Latin *morus* 'mulberry tree', *morum* 'mulberry' comes from Ancient Greek *μόρον* (*moron*) 'mulberry; blackberry', *morea* 'mulberry tree',

²⁹ *Etymolohichnyi slovnyk ukrainskoi movy* [Etymological dictionary of the Ukrainian language], vol. 1, p. 570.

³⁰ M. de Vaan, *op. cit.*, p. 683.

³¹ *Etymolohichnyi slovnyk ukrainskoi movy* [Etymological dictionary of the Ukrainian language], vol. 1, p. 337.

Armenian *mor, mori, moreni* 'blackberry', Irish *merenn* 'mulberry' to Indo-European **morom* 'blackberry', which transferred on mulberry in Southern Europe, and then to Indo-European **mer-* 'black' after the fruit colour³². Specific epithet *alba* (Latin *albus, a, um* 'white') < **h₂elb^h-o-* 'white'³³.

Ukraine name *шовковиця* is derived from *шовк* 'silk'; the name is motivated by the fact that the mulberry silkworm feeds on the leaves of the plant³⁴. Butterfly caterpillars are used to produce natural silk.

Juglans regia – Common walnut (Горіх волоський).

Latin *Juglans* 'walnut' is an univerbation of *Iovis glāns* 'Jupiter's acorn', from Proto-Italic **djouglānts*. The compound is of Proto-Indo-European date, with parallels in Ancient Greek *Diōs bálanos* 'sweet chestnut', Armenian *ւղնղհւ*. Specific epithet *regia* (*regius, a, um* 'royal') < Latin *rex, regis m* 'king'. The walnut, like the oak, was sacred tree of Zeus, Jupiter.

The Ukrainian name *горіх* < Proto-Slavic *orěxъ* of unclear etymology. It's compared with Greek *ἄρνα* 'kind of nuts', Albanian *are* 'nut', Lithuanian *riešutas, rėšas, nyuksys*, Latvian *riēksts* 'nut; hazel nut', Prussian *bucca-reisis* 'beech acorn'; at the same time, it is considered that the Baltic languages have lost the initial *a-* root; there is also the opinion that the initial *o-* in Slavic languages, like the initial *v-* in Polabian, is a prefix attached to the stem of the verb *řešiti* 'to untie', related to Lithuanian *rieš-* in the derived name *riešutas* 'nut', *rišti* 'to bind, untie'; the name in this case is motivated by the fact that hazel nuts grow in bunches; *r* in Ukrainian is secondary; an assumption about the Proto-Indo-European (substratum) origin of the word is a less well-founded, as well as the motivation of the connection of the word with the verb *řešiti* 'to detach, separate'³⁵.

Specific epithet *волоський* < *волох* 'representative of the Romanic peoples, Moldavian or Romanian, rarely Italian' < Proto-Slavic **volxъ* 'Romanian, representative of the Romanic peoples'; the term came through German mediation (Gothic **walhs*, German *walh, walch* 'foreigner, Roman')³⁶. Probably, representatives of these peoples brought nuts to Ukraine, which is why the fruit and the tree got this name.

³² H. Genaust, *op. cit.*, p. 252.

³³ M. de Vaan, *op. cit.*, p. 32.

³⁴ *Etymolohichnyi slovnyk ukrainskoi movy* [Etymological dictionary of the Ukrainian language], vol. 6, p. 451.

³⁵ *Etymolohichnyi slovnyk ukrainskoi movy* [Etymological dictionary of the Ukrainian language], vol. 1, p. 567.

³⁶ *Ibid.*, p. 422.

Ribes nigrum – Blackcurrant (Смородина чорна).

Latin *ribes* comes from Arabic *ribās* 'sour; rhubarb': blackcurrant juice used to have the same pharmaceutical uses as rhubarb juice³⁷.

The species epithet *nigrum* refers to the dark colour of the fruits. The origin of the Latin adj. *niger, gra, grum* 'black' is unknown³⁸. The names of other types of currants are also given by the fruit colour: *Ribes rubrum* – Red currant, *Ribes album* – White currant, *Ribes aureum* – Golden currant³⁹.

The Ukrainian name *смородина* < Proto-Slavic **smorda, *smordina* 'currant', related to **smordъ* 'strong smell': the name is due to the strong smell of the plant. As semantic parallels are pointed German *stinkstruck* and *stinkbaum* 'blackcurrant' from stem *stinken* 'to stink' due to the smell of blackcurrant leaves⁴⁰.

Grossularia reclinata – Gooseberry (Агрис відхилений).

Genaust believes that *grossularia* 'gooseberry' comes from Latin *grossulus* 'small immature fig' < *grossus* 'unripe fig' < *grossus, a, um* 'thick; unripe': by the shape and taste of berries⁴¹.

The specific epithet *reclinata* (adj. *reclinatus, a, um*) from Latin *reclinare* 'to recline: branches with abundant fruit often lean towards the ground.

The synonymous scientific name of this plant is *Ribes uva-crispa*. The etymology of the generic name was analysed in the previous example (currant and gooseberry belong to the same genus). The specific epithet *uva-crispa* 'grape tenacious': wild species of gooseberry have thorns, and its fruits resemble grapes.

The Ukrainian name *агрис* is borrowed through Polish, in which *agrest* in 15–16 centuries meant 'sour wine from unripe grapes', later – 'gooseberry', from the Italian *agresto* 'unripe grape', which comes from Latin *agresta* 'green grape' (according to other interpretations 'wheatgrass') with unclear etymology, possibly related to Greek *ἄγρωστις* 'fodder grass'⁴².

³⁷ H. Genaust, *op. cit.*, p. 320.

³⁸ M. de Vaan, *op. cit.*, p. 409.

³⁹ V.D. Shynkaruk, O. Iu. Balalaieva, & I.I. Vakulyk, *Lingua Latina agrobiologica*. Kyiv: Milenium, 2017, p. 281.

⁴⁰ *Etymolohichnyi slovnyk ukrainskoi movy* [Etymological dictionary of the Ukrainian language], vol. 5, p. 328.

⁴¹ H. Genaust, *op. cit.*, p. 84.

⁴² *Etymolohichnyi slovnyk ukrainskoi movy* [Etymological dictionary of the Ukrainian language], vol. 1, p. 47.

Sabadosh gives a slightly different version of the origin of this word. If up to 18th century the Polonism *agris* (*agrest*, etc.) was mainly used, then approximately from 18th century and during the XIX along with it the *аґрыс* variant (*аґрыс*) became more common. It should not be derived directly from Polish *agrest*, but appeared already at the beginning 19th century, phonetically on the Ukrainian linguistic basis from *аґресм*: *аґресм* > *аґросм* > *аґро'см* > *аґрысм* > *аґрыс* (*аґрыс*)⁴³ (Sabadosh, 2014, p. 32).

Rubus idaeus – Raspberry (Малина).

Wild raspberries were picked as early as the 1st century AD at the foot of Mount Ida near Troy, and the introduction of the plant into culture was recorded by the Roman writer and agronomist Palladius in the 4 century. Pliny the Elder wrote about red raspberries, remembering that the Greeks called this fruit 'ida' after the mountain. For a long time, the term 'ida' was used to denote raspberry fruits. Subsequently, K. Linnaeus named this species *Rubus idaeus*, in his opinion, the name of the genus *rubus* 'blackberry, raspberry' derives from Latin *ruber*, *bra*, *brum* 'red' by the colour of the berries, and the specific epithet *idaeus* 'Idean' refers to the origin of the plant. Modern linguists consider this etymology of the generic name quite doubtful. According to one version, Latin *rubus* 'blackberry, raspberry' is related to Indo-European **reub-* 'to tear' (cf. Latin *rumpere* 'to tear, break'⁴⁴, according to another – it comes from Proto-Indo-European **wrdʰo* 'sweetbriar' (cf. dial. Norwegian *erre*, *orr* 'bush', Albanian *hurdhe* 'ivy', Persian *gol* 'flower', Old English *word* 'thornbush').

The Ukrainian name *малина* < Proto-Slavic *malina* also does not have a clear etymology: it compared with Lithuanian *melynas* 'blue', *melsvas* 'bluish', Latvian *melns* 'black; dirty', Prussian *mīlinan* 'spot', *melne* 'blue spot', Greek *μέλας* 'black', Gothic *mēljan*, ancient Indian *malināḥ* 'dirty; black', *mālah*, *mālam* 'dirt' (Indo-European **mōl/mel-* 'black, blue, spot'); are also associated with Latin *mōrum* 'mulberry, blackberry', Greek *μόρον* 'mulberry'; Proto-Slavic *malъ* 'small', Ukrainian *маль* 'young sheep', Greek *μήλον* 'sheep, goat'⁴⁵.

Conclusions

The conducted analysis proved that the process of nomination of trees and shrubs in Latin and Ukrainian is mostly based on the mechanisms of

⁴³ I.V. Sabadosh, *op. cit.*, p. 32.

⁴⁴ H. Genaust, *op. cit.*, p. 84.

⁴⁵ *Etymolohichnyi slovnyk ukrainskoi movy* [Etymological dictionary of the Ukrainian language], vol. 3, p. 372.

propositional and dictum motivation, which fixes true knowledge about the object of nomination in the structure of the name. As in the case of crop plant names⁴⁶, the predicate-argument type of propositional-dictum motivation prevails.

However, it is not always possible to clearly establish the etymology of a word, especially in Latin, where a significant part of plant names is borrowed through Greek from other ancient languages⁴⁷.

In both Latin and Ukrainian, the reconstruction of the motivators of many names of trees and shrubs remains hypothetical, even within the etymological investigations of the same word – generic name, researchers actualize different name motivators, seeing connections with various characteristics of plant: appearance, colour (Latin: *sorbus*, *rubus*; Ukrainian: *горобина*, *малина*, *слива*, etc.), smell (Ukrainian: *смородина*, etc.), taste (Latin: *ribes*, etc.) origin or place of growth (Latin: *armeniaca*, *persica*, *cydonia*; Ukrainian: *персик*, etc.), time of flowering or ripening (Ukrainian: *абрикос*), properties (Latin: *vitis*, Ukrainian: *вишня*, *груша*, etc.), usage in human practice (Latin: *hippophæ*; Ukrainian: *шовковиця*, *виноград*, etc.) and other factors. Since the process of domestication of trees and shrubs has a long history, many dendronyms names in both Latin and Ukrainian have reconstructed Proto-Indo-European stems.

REFERENCES:

Balalaieva, O., (2020), High-frequency Greek and Latin roots denoting plant parts. *Euromentor*, vol. 11(2), 137-145.

Balalaieva, O., (2023), Reconstruction of inner forms of cultivated plant names. *Euromentor*, vol. 14(4), 62-77.

Blažek, V., (2018), Indo-European Dendronyms in the Perspective of External Comparison. *Journal of Indo-European Studies*, vol. 46 (1/2) Spring-Summer, 1-45.

Caceres-Lorenzo, M.T. & Salas-Pascual, M., (2022), What do phytonyms name? The definition of plant names in academic dictionaries. *Revue Romane*, vol. 57, no 2, 343-366.

Dębowiak P., & Waniakowa J., (2019), Semantic Motivation of Plant Names as a Part of their Etymology. *The Landscape of Lexicography*. Lisboa:

⁴⁶ O. Balalaieva, Reconstruction of inner forms of cultivated plant names. *Euromentor*, 2023, 14(4), p. 76.

⁴⁷ O. Balalaieva, High-frequency Greek and Latin roots denoting plant parts. *Euromentor*, 2020, 11(2), 137-145.

Centro de Linguística da Universidade de Lisboa & Centro de Línguas, Literaturas e Culturas da Universidade de Aveiro, 173-200.

Etymolohichnyi slovnyk ukrainskoi movy [Etymological dictionary of the Ukrainian language] (Vol. 1 -6). Kyiv: Naukova dumka, 1982-2012.

Fenwick, R.S., (2016), Descendants and ancestry of a Proto-Indo-European phytonym *meh₁l-. *The Journal of Indo-European Studies*, vol. 44, 441-456.

Genaust, H., (2012), *Etymologisches Wörterbuch der botanischen Pflanzennamen*, 3rd ed. überarbeit. und erw. Aufl. Hamburg: Nikol.

Hrytsenko, S.P., & Balalayeva, O.Y., (2008), *Latin language for the students-agrobiologists: manual*. Kyiv, Tcentr uchbovoi literatury.

Kalko, V.V., (2003), *Kohnityvno-onomasiolohichnyi analiz nazo likarskykh rosllyn v ukrainskii movi* [Cognitive Onomasiological analysis of Official Plants' Names in the Ukrainian Language]. (Dissertation thesis). Odesa, Mechnikov National University.

Nechytailo, V.A., Badanina, V.A. & Hrytsenko, V.V., (2005), *Kulturni roslyny Ukrainy* [Cultivated plants of Ukraine]. Kyiv: Fitosotsiotsentr.

Sabadosh, I.V., (2014), *Istoriia ukrainskoi botanichnoi leksyky (XIX - pochatok XX st.)* [History of Ukrainian botanical vocabulary (XIX – beg. XX)]. Uzhhorod: Uzhhorodskyi natsionalnyi universytet.

Shestakova, S., (2010), Motyvatsiia suchasnykh ukrainskykh fitonimiv [Motivation of modern Ukrainian fitonyms], *Ukrainska mova*, 2, 44-49.

Shynkaruk, V.D., Balalaieva, O. Iu., & Vakulyk, I.I., (2017), *Lingua Latina agrobiologica*. Kyiv: Milenium.

Shynkaruk, V.D., Vakulyk, I.I., Kushnir, A.I., Kharchenko, S.V., & Lychuk, M.I., (2019), *Rozrobka novitnykh pryntsypiv stvorennia reiestru tsinnykh derev i kushchiv parkiv i skveriv m. Kyieva na osnovi terminolohichnykh standartiv* [Development of the new principles for creating a register of valuable trees and shrubs of Kyiv parks and squares based on terminological standards]. Kyiv: Milenium.

Urniaż, A.J., (2021), Shapes in Botanical Names: A Polyconfrontative Approach. *Academic Journal of Modern Philology*, vol. 12, 219-229. DOI: 10.34616/ajmp.2021.12

Usyk, L., (2017), *Kohnityvno-onomasiolohichna rekonstruktsiia otsinnoho komponenta u semantytsi fitonimiv (na materialy nazo likarskykh rosllyn u nimetskii, anhliiskii, rosiiskii ta ukrainskii movakh)* [Cognitive and onomasiological reconstruction of the evaluative component in the semantics of phytonyms (on the material of the names of medicinal plants in German, English,

Russian and Ukrainian languages)] (Doctoral dissertation). Kyiv: National Pedagogical Drahomanov University.

Vaan, M., (2016), *Etymological dictionary of Latin and the other Italic languages*. Leiden Indo-European etymological dictionary series, vol. 7.

Waniakowa, J., (2021), Gwarowe nazwy roślin jako odbicie nastawienia użytkowników gwar do przyrody (Ujęcie historyczno-porównawcze). *Poradnik Językowy*, no 3, p. 45–59. DOI: 10.33896/PorJ.2021.3.4.

IMPORTANT VALUES FOR INTERCULTURAL AWARENESS

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Abstract: *In the current Romanian educational system, teaching English includes the cultural perspective, which involves developing cultural communication skills and functional autonomy of students. Based on these assumptions, my article investigates the concept of intercultural competence in teaching English in order to better understand what strategies and techniques can facilitate understanding and integration of cultural concepts in real life communication contexts.*

Consequently, I shall demonstrate that teaching English involves not only morpho-syntactic or lexical structures: my premise is that besides enriching communication skills, the cultural competence facilitates understanding and respect for different cultures, it promotes objectivity and cultural insight, leading to effective identification of cultural differences and similarities in order to be further exploited and valued by students in real life.

Keywords: *interculturality, intercultural competence, teaching foreign languages, cultural awareness, cultural difference, European Framework of Reference.*

Important Values for Intercultural Awareness.

The concept of intercultural competence has appeared in recent years as an ideal end result of language education. The ability to interact successfully in other cultures is a skill to be desired through the learning of a second language. The studies and research on intercultural competence only emerged in the last 20 years, but scholars such as Byram and Bennet have deemed the development of it as absolutely necessary for students. Both scholars state that intercultural competence is a combination of many facets, but specifically it combines the language skills and knowledge of the target culture in order to navigate and interact with native speakers of the second language or actively participate in the target culture¹. Cardoso² defines *intercultural education* as a series of

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¹ M. Byram, B. Gripkova and H. Starkey, *Developing the Intercultural Dimension in Language Teaching. A practical introduction for teachers*. Strasbourg: Council of Europe, 2002.

² C. Cardoso, *Race Ethnicity and Education*. London: Routledge, 1998, pp. 13-14.

attempts to engage with diverse cultures and lifestyles showing respect. Intercultural education should promote understanding and respect for other people and cultures, fight racism and xenophobia, and promote equal opportunities for all. European countries are characterized by diversity despite efforts to produce an idea of Europeaness. Europe is multicultural and multi linguistic and therefore interculturality in Europe implies openness to plurality of values, religions, beliefs and ways of life.

Hence, intercultural education is not just about cultural differences, but about all of our characteristics as individuals and as members of groups, going beyond religious or ethnic customs, because although we are diverse, we share a common humanity. Intercultural education is a response to the challenge to provide quality education for all. It is framed within a Human Rights perspective as expressed in the Universal Declaration of Human Rights (1948): "Education shall be directed to the full development of human personality and to the strengthening of respect for human rights and fundamental freedoms. It shall promote understanding, tolerance and friendship among all nations, racial and religious groups, and shall further the activities of the United Nations for the maintenance of peace."

Intercultural education is defined by the Romanian National Council for Curriculum and Assessment (NCCA) as an

[...] education which respects, celebrates and recognizes the normality of diversity in all areas of human life. It sensitizes the learner to the idea that humans have naturally developed a range of different ways of life, customs and worldviews, and that this breadth of human life enriches us all. It is education, which promotes equality and human rights, challenges unfair discrimination, and promotes the values upon which equality is built.³

Intercultural awareness can be regarded as the foundation of communication. It involves the two qualities: one is the awareness of one's own culture; the other is the awareness of another culture. In other words, it involves the ability of standing back from our own point and becoming aware of not only our own cultural values, beliefs and perceptions, but also those of other cultures. In the absence of cultural awareness, we tend to misinterpret the verbal and non-verbal behavior of the person with

³ NCCA, *Intercultural Education in the Primary School. Guidelines for schools*. Dublin: Department of Education and Science, 2005, p. 3.

whom we interact. However, an effective way to develop their communicative competence is to cultivate empathetic concepts and precepts in the process of foreign language learning. The empathy in foreign language learning and intercultural communication is what we call *intercultural empathy*, which means placing himself into the cultural background of the target language and being able to effectively communicate his understanding of that world.

All of the definitions above show that intercultural competence is an (inter)active process and something that cannot be attained strictly by individually studying the linguistic structure of a language, but only through intentional interaction with others and an acceptance of cultural differences. In other words, language teaching with an intercultural dimension continues to help learners to acquire the linguistic competence needed to communicate in speaking or writing, to formulate what they want to say or write in correct and appropriate ways. By acknowledging diversity, as part of intercultural education, we can avoid a homogenizing approach as well as hypertrophying differences and forming special groups according to social categories that are established “a priori” (nationality, age, language, religion, social class, gender, etc.). Everyone, teachers and students, is involved, as active agents, in teaching and learning processes.

Cultural Benefits in Language Learning and Teaching.

Foreign language learning has several components, including grammatical competence, communicative competence, language proficiency, as well as a change in attitudes towards one’s own or another culture. At any rate, foreign language learning is foreign culture learning, and, in one form or another, culture has, even implicitly, been taught in the foreign language classrooms.

It has been recognized in the language teaching profession that learners need not just knowledge and skill in the grammar of a language but also the ability to use the language in socially and culturally appropriate ways. This was the major innovation of *communicative language teaching*. At the same time, the *communicative approach* introduced changes in methods of teaching, the materials used, the description of what is to be learnt and assessment of learning.

The *Council of Europe Common European Framework of Reference (CEFR)* embodies these innovations and also emphasizes the importance of *intercultural awareness, intercultural skills, and existential competence*.

According to the *Framework of Reference for Pluralistic Approaches to Languages and Cultures* (FREPA)⁴, the final product of a project coordinated by the European Centre for Modern Languages of the Council of Europe, intercultural competence includes:

a. Competence in the construction and broadening of a plural linguistic and cultural repertoire

- profiting from one's own inter-cultural/interlanguage experiences whether they are positive, problematic or frankly negative;

- applying systematic and controlled learning approaches in a context of otherness, in either an institutional or school context, in groups or individually.

b. Competence in managing linguistic and cultural communication in a context of *otherness*

- resolving conflict, overcoming obstacles, clarifying misunderstandings

- negotiation, which is the foundation for establishing contacts and relationships in a context of otherness;

- mediation, which is the foundation for establishing relationships between languages, between cultures and between people;

- adaptability, which calls on all the resources one has to 'approach what is unfamiliar, different'.

c. Intermediate competences, which clearly fit into two zones:

- decentering, which describes a key feature of the aims of pluralistic approaches, involving a change of vantage point, seeing things in a relative way, thanks to a number of resources stemming from attitudes, skills and knowledge;

- making sense of unfamiliar linguistic and/or cultural features, refusing to accept communicative or learning) failure, using all resources available, especially those based on inter-comprehension;

- distancing which, based on a range of resources, allows a critical approach to situations, keeping control, and avoids being completely immersed in the immediate interaction or learning activity;

- critical analysis of the (communicative and/or learning) activities one is involved in (close to what is sometimes called *critical awareness*)

⁴ M. Candelier, (coord.) et al. FREPA. A Framework of Reference for Pluralistic Approaches to Languages and Cultures: Competences and Resources. Council of Europe, 2013.

which puts the focus on the resources applied after the distancing has been carried out;

- recognizing the 'Other', and otherness, in what is different and similar.

In other words, the introducing of the intercultural dimension in CEFR into the aims of language teaching is essentially helping language learners to interact with speakers of other languages on equal terms, and to be aware of their own identities and those of their interlocutors. It is the hope that language learners who thus become 'intercultural speakers' will be successful not only in communicating information but also in developing a human relationship with people of other languages and cultures.

In this view, the main aim of teaching the intercultural dimension is not the transmission of information about a foreign country. The intercultural dimension is concerned with:

- a. helping learners to understand how intercultural interaction takes place,
- b. how social identities are part of all interaction,
- c. how their perceptions of other people and others people's perceptions of them influence the success of communication,
- d. how they can find out for themselves more about the people with whom they are communicating.

Consequently, a teacher does not have to know everything about the target culture, a teacher should try to design a series of activities to enable learners to discuss and draw conclusions from their own experience of the target culture as a result of what they have heard or read. The teacher might provide, for instance, some factual information related to the lifestyles current in the culture and patterns usually followed by members of these cultures, but the important thing is to encourage comparative analysis with learners' own culture. The set programme of study is likely to be based on themes as well as grammatical structures.

Intercultural Competence in Textbooks and Beyond

With regard to textbooks, these can be presented in a way that suggests that the materials are authoritative and definitive or in an intercultural and critical perspective. When developing intercultural skills,

teachers can start from the theme and content in the text-book, and then encourage learners to ask further questions and make comparisons. Themes treated in textbooks can lend themselves to development in an intercultural and critical perspective. The key principle is to get learners to compare the theme in a familiar situation with examples from an unfamiliar context.

For instance, the theme of **Sport** can be examined from many perspectives, including:

1. Gender. Are there sports that are, in the familiar context or in the unfamiliar context, predominantly played by men or by women? Are things changing?

2. Age. Are there sports for young people and older people?

3. Region. Are there any local sports? Do people, including the learners, identify with local teams? Do some teams have a particular cultural tradition?

4. Religion. Are there religious objections to playing sport, or days when some people choose not to do sport because of religious observance?

5. Racism. Is this found in spectator sports? Are the players of foreign teams, or foreign players in local teams treated with respect? Are there incidents of racist chants or insults?

Other themes, such as food, homes, school, tourism, leisure, can receive a similarly critical perspective. Grammatical exercises can reinforce prejudice and stereotypes or challenge them. For example, female subjects may be linked to stereotypically female activities or actions; stereotyping generalizations may be encouraged about groups. Moreover, teachers can encourage learners to comment on such statements and challenge them. Similar exercises can be proposed, which include a broader view of culture (e.g. use a wider range of names; include activities more likely to be enjoyed by minority groups, or clothes worn by minorities; include a wide range of names of countries and peoples).

Starting from the exercises proposed by the text-books, learners can devise further exercises, reinforcing the same grammatical structures, but using a different range of contexts and examples. They can then swap exercises and work on examples provided by other learners.

One important contribution to an intercultural perspective in textbooks is the inclusion of vocabulary that helps learners talk about cultural diversity. This can include terms such as: human rights; equality;

dignity; gender; bias; prejudice; stereotype; racism; ethnic minority; and the names of ethnic groups, including white groups. Textbooks can be written in an intercultural and critical perspective or in a way that suggests that the materials are authoritative. If there is a choice of textbook, one with this critical perspective is preferable. What we want is to provide students with the skills to argue, not learn by heart. Sources of information used are authentic texts, including audio recordings and a variety of written documents and visuals such as maps, photographs, diagrams and cartoons. The activities involve understanding, discussing and writing in the target language. The approach to the materials is always critical. There is every reason for applying such principles to all topics studied in the target language.

It is a question of challenging the reader by bringing together texts and visual materials which present contrasting views. Learners need to acquire concepts for analyzing texts more than factual information. However, if a textbook presents a single perspective, then teachers can suggest that other perspectives are also possible and legitimate. One way of doing this is to find or encourage learners to find additional authentic materials which present a different view. The Internet is a rich source for this. For instance, learners can find newspapers with different political or cultural perspectives and campaigning material from a variety of organizations. In any case, authentic materials should be presented in their context, or ensure that the textbook does this. It is important for learners to know information about a text or document such as the following:

A. **Context**, e.g. date the text was produced; the type of publication; the place where it was produced; the intended readership or audience; significant external events that influenced its production or may have been in the minds of readers/ listeners; likely political, religious or cultural viewpoint;

B. **Intention**, e.g. to persuade, to argue, to entertain, to sell something (advertisements). Learners can be encouraged to examine the textbook critically, including cartoons, photographs and other non-print material it may contain. They can also be encouraged to look for similar texts or other items from their familiar culture and compare and contrast them.

However, promoting the intercultural dimension requires a framework of accepted classroom procedures that allows for the expression of and recognition of cultural difference. These procedures

should be based on human rights – equal dignity and equal rights. They should be explicit and discussed with and agreed by the group. Procedural ground rules need to be established and adopted for discussion and debate in class. Whether the context is pair work, group work or whole class discussions, agreements such as the following apply:

- Participants are expected to listen to each other and take turns.
- Where a discussion is chaired, the authority of the chair is respected.
- Even heated debates must be conducted in polite language.
- Discriminatory remarks, particularly racist, sexist and homophobic discourse and expressions are totally unacceptable at any time.
- Participants show respect when commenting on and describing people portrayed in visuals or texts.
- All involved have the responsibility to challenge stereotypes.
- A respectful tone is required at all times.

Learners and teachers will expect to examine and challenge generalizations or stereotypes, and suggest or present other viewpoints. This is an essential part of developing intercultural competence. In oral work, learners can expect to discuss in pairs and small groups, as well as in plenary. They should have opportunities for making a personal response to images, stories, case-studies and other materials. Tasks set should be carefully formulated and include explorations of opinion gaps as well as information gaps. Learners bring considerable knowledge of their familiar culture and some knowledge of cultures being studied. However, they do not necessarily share the same knowledge, the same values or the same opinions. Language learning to promote an intercultural dimension encourages a sharing of knowledge and a discussion of values and opinions. Many intercultural and antiracist educational programmes, such as the *Council of Europe's All Different, All Equal* campaign, are based on the principle of peer education. That means that learners learn from each other as much as from the teacher or textbook.

Conclusion

The importance of the intercultural dimension is that it is a vision of language teaching and learning which goes beyond the concept of language learning as just acquiring skills in a language, accompanied by

some knowledge about a country where the language is spoken. Intercultural competence is different from factual knowledge about another country. Therefore, along with the linguistic competence teachers should be able to develop in their learners the intercultural competence which enables them to interact with people of different cultural backgrounds, multiple identities and a specific individuality.

REFERENCES:

Byram, M., Gripkova B.; Starkey, H., (2002), *Developing the Intercultural Dimension in Language Teaching. A practical introduction for teachers*. Strasbourg: Council of Europe;

Cardoso, C., (1998), *Race Ethnicity and Education*. London: Routledge.

Michel Candelier (coord.) et al. (2013). FREPA. A Framework of Reference for Pluralistic Approaches to Languages and Cultures: Competences and resources. Council of Europe;

NCCA, (2005), *Intercultural Education in the Primary School*. Guidelines for schools. Dublin: Department of Education and Science.

GENDER DIFFERENCES OF ENGLISH LANGUAGE TEACHERS' SELF-EFFICACY AND USE OF ICT IN UNIVERSITIES IN SOUTH-SOUTH GEO-POLITICAL ZONE, NIGERIA

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Abstract: *This research work was on assessment of English Language Teachers' (ELTs) self-efficacy and ICT use in universities in South-South Geo-political Zone of Nigeria. The population of the study comprise all undergraduate and postgraduate ELTs in all private and public universities in South-South Geopolitical Zone of Nigeria. Using simple random and stratified random sampling techniques, one hundred English language teachers of the universities were selected. The study was motivated by the gaps that existed among ELTs in their skills to use and integrate Information Communication Technologies (ICT) in their teaching and learning processes. The survey research method was used and data elicited through a five likert scale questionnaire. The data was analysed using t-test. Findings revealed that there was no difference in ICT use between ELTs in Public and Private tertiary institutions; there was no difference in the ICT self-efficacy of male and female ELTs in public and private universities. The recommendations include among others that all in-service teachers should have minimum ICT skills in the use of word processing, spreadsheet package and database, media and internet. Government and stakeholders should on a regular bases train both pre-service and in-service ELTs and that government should provide support staff in diverse areas and particularly, in the use of ICT facilities and equipment in tertiary institutions to help in achieving the ultimate objectives of instructional practice in Institutions of learning.*

Keywords: *Self-efficacy, Information and Communication Technology (ICT), English Language Teachers (ELTs), Tertiary Institutions, ICT skills.*

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Background to the Study

The information age assigns new challenges and duties on the modern teacher educator. The tradition of English teaching is drastically changing with the remarkable entry of technology. Technology provides so many options as making teaching interesting and making teaching more productive. To be able to do this, the teacher needs competence in related technicalities, operations, concept and productivity of Information and Communication Technology (ICT); these include tools like computers and communication devices such as available application on-line or off-line. Therefore, the competence and skills in basic computer operation and other information devices including basic troubleshooting and maintenance are required.

In consonance with the National Education Initiatives, the understanding of development is situated that "all classroom teachers, along with school administrators and school technical coordinators of K-12 schools should receive effective training in the use of ICT in education".¹ Teachers should be aware of the potentials of technology to promote educational reform. The ability to apply technology appropriately is one of the necessary skills for a good and qualified teacher. Teachers should demonstrate the ability to learn and relearn about emerging technology over time; use technology to support lifelong learning, professional development, and personal life. They should demonstrate an understanding of commonly used technology; the fundamental educational technology theories and educational technology methodologies.²

Teachers should be able to use technology to communicate with students, about learning activities, with parents to update them on students' performance; with peers on teaching ideas, materials and research; with administrators of different levels, about management as well as with technicians in fields such as courseware design, media selection and development and with experts to ask for professional

¹ The Conviction of NFI, 2007 as cited in UNESCO's document on the use of ICT in Education, 2018; and also, confer: S. Ghavifekr & W.A. Rosdy, W. A. (2015). Teaching and learning with technology: Effectiveness of ICT integration in schools. *International Journal of Research in Education and Science*, 1(2), 2015, 175-191.

² A.I. Bature & P.O. Isanbor, Philosophy of EFA and ICT Employment in ODL Arrangement for National Educational Development. *Benin Journal of Religions and Society*, 3(1), 2019, pp. 1-12.

assistance.³ These days, it is uncommon to find a language lesson that does not use some sort of technology. Language acquisition is aided and enhanced by technology. Numerous technological tools have been incorporated by teachers to support their instruction, engage students in the learning process by giving them real-world examples of the target culture, and link their classrooms to classrooms in other nations where the target language is spoken.

At present, the role and status of English language in Nigeria is that of the language of social context, political, socio-cultural, business, education, industries, media-library, communication across borders, and key subject in curriculum and language of imparting education. It is also a crucial determinant for university entrance and processing well-paid jobs in the commercial sector. Since there are more and more English learners in Nigeria, different teaching methods have been implemented to test the effectiveness of the teaching process. One method involves multimedia in English Language Teachers (ELTs) in order to create English contexts. This help students to get involved and learn according to their interests, it has been tested to be effective and is widely accepted for teaching English in the modern world.⁴

Following the above discussions, the researchers intend to find out gender differences of the self-efficacy of ELTs and their use of the ICT technologies in English Language instructional process considering English language teachers' access to "information and knowledge resources"; communication and knowledge sharing; and ICT efficiency according to the National ICT Competency Standard⁵ and National ICT Policy for teachers.⁶ Gender is an important influence in many aspects of the teaching and learning process and could have a significant impact on research most especially conducted in ICT. Institutional ownership differences could play a vital role in ELTs in public and private universities in their use of ICT. A number of researchers have been conducted to determine how gender affects the usage of ICT in teaching and learning. However, the results of the research are inconclusive. On

³ UNESCO, *UNESCO ICT competency framework for teachers* (3rd Ed.). Paris: UNESCO Publishing, 2018.

⁴ ACTF, 2012

⁵ UNESCO, *Ibid*

⁶ E. Adomi, *Handbook of research on information communication technology policy: Trends, issues and advancements*. IGI Global. 2010.

the one hand, certain studies⁷ claim that gender disparities do not exist. On the other hand, male and female differences are highlighted in literature. Literature reveals considerable gender differences in terms of attitudes towards ICT.⁸ For example, some researches reveal significant gender differences with regard to attitudes to ICT. The males have more positive attitudes toward the integration of ICT in teaching and learning than their female counterparts.⁹

Ali, Ashraf, & Yasmin¹⁰ compared the digital skills of teachers in public and private schools. The researchers had a sample of 216 teachers in both sectors using a two-stage simple random sampling methodology. The data was compiled using a self-developed digital skills tool with 9 indicators. The reliability and validity of the research tool were confirmed, and the results were reported using t-tests and ANOVA. The results showed that public and private school teachers have different approaches to digital skills. Private school teachers are more innovative when it comes to digital skills.

Arhin, *et al's* study¹¹ was to explore "the influence of teachers' self-efficacy and attitude towards the integration of ICT into teaching and learning at the basic school level." The study consisted of a descriptive survey designed to collect data from a sample of 159 teachers, which was representative of 270 accessible populations that were purposively chosen. The respondents responded to an online survey. The data collected were analyzed using frequency, percentage, mean, standard deviation, and Pearson Product Moment Correlation Coefficient. One of the findings of the study revealed that there is a significant difference between male and female teachers' attitudes towards the integration of ICT in teaching and learning. The males have more positive attitudes toward the integration of ICT in teaching and learning than their female counterparts.

⁷ E.F. Fomsi & S.E. Orduah, Gender differences in the use of ICT among teachers in model primary schools in Rivers State, Nigeria. *British Journal of Education*, 5(4), 2017, 88-94.

⁸ A.I. Bature & P.O. Isanbor, *Ibid*.

⁹ D. Arhin, K. Kwakye, L.Q. Quaynor, R.O. Boakye & J.A. Yeboah, Influence of teachers' self-efficacy and attitude towards the integration of ICT into teaching and learning at the basic school level. *American Journal Education and Practice*, 6(1), 2020, pp. 36-45.

¹⁰ M.S. Ali, M.N. Ashraf & A. Yasmin, Inequities of Digital Skills and Innovation: An Analysis of Public and Private Schools in Punjab. *Bulletin of Education and Research*, 42(2), 2020, pp. 97-112.

¹¹ D. Arhin, K. Kwakye, L.Q. Quaynor, R. O. Boakye & J. A. Yeboah, *Ibid*.

Fomsi & Orduah did a study titled: *Gender Differences in the Use of ICT among Teachers in Model Primary Schools in Rivers State, Nigeria*.¹² The Descriptive survey research design was used for the study. The population of the study comprises all the teachers in the 50 model schools in Port Harcourt City Council and Obio-Akpor Local Government Areas of Rivers State. Using simple random technique, a sample of 200 teachers was used for the study. Two research questions were raised which were hypothesized. The research questions were answered using mean with a mean-cut-off point of 2.50, while the hypotheses were tested using independent t-test. Findings indicated that there is no significant difference between the mean scores of the male and female model primary school teachers in the use of information and communication technology.

The primary objective of Odike¹³ study was to assess the perception of teachers on the utilization of Information and Communication Technologies (ICT) in the teaching of Fine and Applied Arts in secondary schools in Anambra state, Nigeria. The survey research design was adopted and the sample size was 189 respondents, all of whom were Fine and Applied Arts (F&A) teachers in public or private secondary schools. A structured questionnaire with 20 items was used to collect data, which was verified by three experts. The instrument's reliability was assessed using the Measure of Internal Consistency (MIC) method and the data was analysed with Cronbach Alpha Reliability (CRA). The research questions were answered using mean and standard deviation, and null hypotheses were tested using a t-test. One of the findings of the study indicated that there were no significant differences between the average ratings of the Fine & Applied Arts teachers in the public & private secondary Schools.

Mwila's study¹⁴ was conducted to assess the attitudes of secondary school teachers in the Kilimanjaro region of Tanzania regarding the

¹² E.F. Fomsi & S.E. Orduah, Gender differences in the use of ICT among teachers in model primary schools in Rivers State, Nigeria. *British Journal of Education*, 5(4), 2017, 88-94.

¹³ F.I. Odike, Perception of Teachers on the Use of ICT Facilities in Teaching Fine and Applied Arts in Secondary Schools in Anambra State of Nigeria. *International Journal of Innovative Social and Science Education Research*, 8(4), 2020, pp. 141-149.

¹⁴ P. Mwila, Assessing the attitudes of secondary school teachers towards the integration of ICT in the teaching process in Kilimanjaro, Tanzania. *International Journal of Education and Development using Information and Communication Technology*, 14(3), 2018, pp. 223-238.

integration of ICT into the teaching process. The survey was conducted using a cross-sectional design and involved a sample of 100 teachers from 10 secondary schools. The research tools used were an interview schedule and questionnaires, as well as an observation schedule. The results of the survey were analyzed using both descriptive and inferential statistics. The survey revealed that both female and male teachers were enthusiastic about the inclusion of ICT in their classrooms. In another vein, Tijani & Tolorunleke¹⁵ did a study titled: *Teachers' self-efficacy in the use of information and communication technology for teaching basic technology in Ilorin Metropolis*. The design of the study is a descriptive survey. The sample comprises 262 Basic Technology teachers in upper basic schools in Ilorin. The researchers designed the questionnaire that was used to elicit responses from the respondents. The data were analysed using mean and t-test of independent sample. One of the findings revealed that there was no significant difference between male and female Basic Technology teachers' in their self-efficacy in the use of ICT.

Statement of the Problem

Technology use in the classroom presents an on-going challenge in education. Although with a few exceptions, most professional development programmes provide teachers with little or no knowledge or experience to begin to use computer technology in their classroom in same manner as other tools like the board, posters, pictures, graphs, mapping and images, sounds, voices, manipulative senses, text and so on. This is because technology integration involves not only knowing the computer related technologies and software, as it also involves the way teachers and students use technology to approach learning. The amount of information (primary and secondary) available to the classroom and how that information can be organized, thought about and presented requires new skills for both teachers and students.¹⁶ Prospective teachers often come to the public or private schools with a basic understanding of computer applications and not of the big picture of the possibilities for technology integration. The question is, what percentage of ELTs in tertiary institution in the South-South Geopolitical Zone in Nigeria are prepared to use technology in the classroom?

¹⁵ A.A. Tijani & E.A. Tolorunleke, 'Teachers' self-efficacy in the use of information and communication technology for teaching basic technology in Ilorin Metropolis. *Ilorin Journal of Education*, 43 (2), 2023, pp. 29-41.

¹⁶ T. Stanley, The importance of 21st-Century skills. *Authentic Learning*, 2021, 17-28.

All teachers, regardless of the subject areas or the grade levels they teach, are expected to be capable of utilizing the extensive capacities of ICT to create effective teaching and learning activities to an expected standard.¹⁷ ICT is a crucial tool that is mostly and widely integrated in the teaching and learning process, especially in English language. As one of the important aspects of teacher education programmes, the educational technology courses equip teachers with technological skills and strategies to help learners learn a second language better and easier. But the question is how versed are English Teacher Educators (ETE) in using this tool? Do they possess sufficient ICT skills to sufficiently carry out integrated activities in class? Does their self-efficacy and use of ICT differ according to gender or type of tertiary institution of teachers? These are the gaps which this study is set out to explore and fill.

Research Questions

To guide the study, the following research questions were raised:

1. Is there any difference in the use of ICT in Nigeria public and private universities?
2. Is there any difference between the male and female ELTs in their use of ICT in universities in south-south geo-political zone of Nigeria?
3. Is there any difference between the male and female ELTs in their ICT self-efficacy in universities in South-South Geopolitical zone of Nigeria?

Hypotheses

The research questions were hypothesised as follows:

1. There is no significant difference in the use of ICT between public and private universities ELTs in South-South Geopolitical Zone of Nigeria.
2. There is no significant difference between the male and female ELTs in their use of ICT in universities in South-South Geopolitical Zone of Nigeria.
3. There is no significant difference between male and female ELTs in their ICT self-efficacy in universities in South-South Geopolitical Zone of Nigeria.

¹⁷ A. I. Bature & P. O. Isanbor, *Ibid.*

Theoretical Framework

The theoretical Frameworks that underpin this study are Davis' Technology Acceptance Model (TAM)¹⁸ and Bandura's Self-efficacy theory.¹⁹ Davis's TAM aims not only to explain key factors of user acceptance of information systems, but also to predict the relative importance of the factors in the diffusion of technological systems.²⁰ The model attempts to derive the determinants of computer acceptance that is general, capable of explaining user behaviour across a broad range of end-user computing technologies and user populations, while at the same time trying to be parsimonious and theoretically justified. These views have led to understandings that equate innovations with patents of new products and/or processes.

Self-efficacy mediates the relationship between knowledge and action. Individuals must also be guided by a belief in their ability to effectively use their knowledge in a given context.²¹ In the context of this self-efficacy theory, computer self-efficacy does not refer to component skills such as using a specific software feature or booting up a computer only, but also a judgements of the ability to apply one's skills when using technology for broader pedagogy tasks.²² A greater sense of computer self-efficacy has been shown to influence individuals' choices regarding computer usage and adoption in general. In the case of teachers, research has suggested that a strong sense of computer self-efficacy among teachers affects both how often and the way ICT is used in everyday instructional practice.²³ Teachers need to become completely computer-literate in a practical sense, and have the confidence to use the available technology adequately. The innovative potential of languages going online must be fully grasped, where teachers can build and sustain

¹⁸ F.D. Davis, *The technology acceptance model for empirically testing new end-user information systems: theory and results*. PhD Dissertation. Massachusetts Institute of Technology, 1986.

¹⁹ A. Bandura, Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 1977, pp. 191-215.

²⁰ See, G. Sang, M. Valcke, J.V. Braak & J. Tondeur, Student teachers' thinking processes and ICT integration: Predictors of prospective teaching behaviors with educational technology. *Computers & Education*, 54(1), 2010, pp. 103-112.

²¹ A. Bandura, Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 1977, pp. 191-215.

²² C. Player-Koro, Factors influencing teachers' use of ICT in education. *Education Inquiry*, 3(1), 2012, pp. 93-108.

²³ C. Player-Koro, *Ibid*.

language communities. Teachers are as mobile as their students, working for several institutions and providers, all over the world, at any one time. They focus on promoting the concepts of ownership of the learning process, active learning, and independence. Hence, self-efficacy is concerned with judgments of what one can do with whatever skills one possesses. It consists of two components, efficacy expectations, and outcome expectations. Several research studies indicate that depending on these sources of judgments, individuals have negative or positive ideas about behaviour before they undertake it and these ideas affect their course of action.²⁴

Meaning and Nature of ICT

ICT is an increasingly powerful tool for participating in the global market, promoting political accountability and improving the delivery of basic services. ICT is seen as information handling tools that are used to produce, store, and process, distribute and exchange information. It can be defined as "anything which allows us to get information and communicate with each other or to have an effect on the environment using electronic or digital equipment". As an instructional resource, ICT encompasses a wide range of technologies that can enhance the processes of finding, exploring and analysing, documenting, exchanging and presenting instruction-based information. Digital technologies carry their own properties, strengths, and constraints, so certain technology may perfectly match some specific tasks, but not others. This new digital ICT are combination of hardware, software, media, and delivery systems.²⁵

Skills and Uses of ICT

Human factors are most important in nurturing the ICT culture and growing the critical mass of teachers able to sustain the use of ICTs

²⁴ L.K. Ruto, Teaching and learning with technology: Effectiveness of ICT integration in science, technology, English and Mathematics (STEM) teaching and learning in African digital schools initiative (ADSI) schools in Narok County. *World Journal of Innovative Research*, 13(1), 2022, pp. 9-19; C. Zehir, B. Muceldili, B. Akyuz & A. Celep, The Impact of Information Technology Investments on Firm Performance in National and Multinational Companies. *Journal of Global Strategic Management*, 4(1), 2010, pp. 143-154.

²⁵ J.Y.M. Asprilla, Importance of ICT fort Social Science teaching in higher education. *Webology*, 19 (2), 2022, pp. 2486-2498.

effectively in their teaching. Granger, Morhey, Owston & Wideman²⁶ explain that the "relationship between teachers' ICT skills and successful implementation is complex". ICT skills are especially important for effective usage of ICT and are the strongest predictor of technology integration in the classroom. Mukuna²⁷ suggests that ICT training should begin during initial teacher training. To be really effective, schools and training institutions need to take a proactive role in promoting ICT.

The integration of ICTs in University teaching and particularly in teacher training has been the topic of much debate. The penetrating influence of ICT advances has provided a rich global resource and collaborative environment for the dissemination of ICT. Literacy materials; interactive software, discussions, research information, and international exchange of ideas which are critical for advancing meaningful educational initiatives, training a highly skilled labour force, and understanding issues related to technological development should be encouraged. The decline in the quality of teacher education in Nigeria has become glaring. This decay is a result of the over dependency of teachers on lecture notes, hand-outs and programmed textbooks. In 2004, Nigeria ranked 80th of the 104 countries surveyed²⁸ suggesting a decline in Nigeria's preparedness to benefit from ICT development globally.²⁹

ICT has changed the (English) teachers' classical role and expectations in the classroom. By providing students with opportunities to discover and create knowledge, ICT permits the teacher to take on the role of a facilitator. This is done by either directly giving students information or helping them to find information for themselves.³⁰ Teachers are increasingly using ICT as a medium of instruction and research in the teaching and learning process. What is the place of the English language teacher in the use of the ICT?

²⁶ C. Granger, M. Morbey, H. Lotherington, R. Owston & H. Wideman, Factors contributing to teachers' successful implementation of IT. *Journal of Computer Assisted Learning*, 18(4), 2002, pp. 480-488.

²⁷ T. Mukuna, T., Integration of ICT into teacher training and professional development in Kenya. *Makerere Journal of Higher Education*, 5(1), 2013, pp. 3-10.

²⁸ The Global Information Technology Report 2003-2004 (2004): Towards an Equitable Information Society (GITS). New York: Oxford University Press, Inc, 2004.

²⁹ A. Tella, Availability and use of ICT in south-western Nigeria colleges of education. *African Research Review*, 5(5). 2011, pp. 25-32.

³⁰ S. Ghavifekr & W.A. Rosdy, Teaching and learning with technology: Effectiveness of ICT integration in schools. *International Journal of Research in Education and Science*, 1(2), 2015, pp. 175-191.

ICT Teacher Professional Development Needs

Technology as a tool involves the use of a large array of hardware and software: word processors, graphic packages; digital camera, presentation applications, databases, and spreadsheet, among others. These hardware and software do not have limited educational purpose, but they are designed to help people extend their abilities to do work. Computer and information science deal with specialty in computer as an area of study for students with particular interests in technology. ICT need to be used as a pedagogically powerful tool for the construction and modelling of knowledge. ICT recognised potentials, and their integration in teaching learning process will be dependent on teachers' knowledge, competence and willingness to integrate ICT in their teaching. Technology as a tool needs to be used as a pedagogically powerful tool for the construction and modelling of knowledge. ICT recognised potentials and their integration in teaching learning process will be dependent on teachers' knowledge, competence and willingness to integrate ICT. Researchers³¹ opine that ICT competencies are concerned with the ability to know when to apply or develop a particular skill in using an ICT resource: be aware of the reasons for using ICT and its effect on both users and context: and have a critical and confident attitude to learning with the technology.

Aduwa-Ogiegbaen ³² , citing the assessment of the Ministerial Advisory Council on the Quality of Teaching, 1995, asserts that the Twenty-first-century teachers are required to maximize the use of the computer in the classroom and recommends a teachers' Continuous Professional Development (CPD) which is at the heart of teachers' quality and students' achievements. There is a need for extensive preparation and on-going support for teachers to ensure they have the knowledge, skills, and confidence in using ICT in the classroom. CPD is argued to be of particular utility for fresh graduates as they face challenging situations related to how to exercise their theoretical knowledge in vivid school contexts. The need to provide teacher education programmes and professional development needs cannot be overemphasized. There is no

³¹ N. Husain, Teacher Competencies for the Use of Information Communication Technology. *Journal of Indian Education*. Vol. XXXVI, 2010; L. Akudolu, Quest for Teacher Needed Competencies for Instructional Use of ICT: Views from European Union (EU). *Nigeria Journal of Teachers Education*, 1(4), 2008.

³² S.E.O. Aduwa-Ogiegbaen, Nigerian In-service Teachers' Self-Assessment in Core Technology Competences and their Professional Development Needs in ICT. *Journal of Computing in Teacher Education*, 26(1), 2009, pp. 17-28.

doubt that the part of the challenges that is encountered in the integration of ICT teaching is the pedagogical implications, the impact on the structure and content of the curriculum, classroom organization and practice, and the change in the role of the teacher.³³ UNESCO has prescribed four basic strategies for professional development needs that are helpful for integrating technologies into classroom education. The strategies include focusing on teaching rather than on hardware and software; the need to provide access to technology resources; the need for professional development activities on ICT use should be a continuous activity and on-going processes.³⁴

Teachers' roles as guides or facilitators in the technology environment have been acknowledged in empirical findings. Karaseva, Siibak, & Pruulmann-Vengerfeldt³⁵ revealed that teachers' mediation is negatively correlated with students' digital and safety skills. Nevertheless, finding the right balance between restrictions, safety, and digital literacy guidance is a crucial matter as putting too heavy restrictions on websites could prevent students from exploring additional opportunities. The findings of Zhao, Lynch & Chen³⁶ also suggest that teacher support has a small but significant influence on high school students' curiosity about the Internet, but only a weak influence on the intrinsic motivation to use the internet. The latter finding is also supported by the results of Karaseva, Siibak, & Pruulmann-Vengerfeldt,³⁷ who found that teacher mediation was the weakest predictor for taking up the opportunity of online content creation. Hence, empirical studies suggest that the role of teachers as "windows" of children's computer and Internet use is rather insignificant.

ICT Adoption in Higher Education

A country's capacity to take advantage of the knowledge economy depends on how quickly it can adjust its capacity to generate and share knowledge. There is an apparent consensus that the starting point of this adjustment is with higher education. The need have been identified for

³³ Ministerial Advisory Council on the Quality of Teaching, 1995 cited in Ismail, Hussein, & Saw, 2012.

³⁴ UNESCO, *Ibid*.

³⁵ A. Karaseva, A. Siibak & P. Pruulmann-Vengerfeldt, Relationships between teachers' pedagogical beliefs, subject cultures, and mediation practices of students' use of digital technology. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 9(1), 2015.

³⁶ X. Zhao, J.G. Lynch & Q. Chen, Reconsidering baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, 37(2), 2010, pp. 197-206.

³⁷ A. Karaseva, A. Siibak & P. Pruulmann-Vengerfeldt, *Ibid*.

student teachers to experience models of ICT use in their own learning before they can go ahead to implement the same in their later profession as teachers.³⁸ This is made possible by using ICT. A study expressed the existence of knowledge and skills as major conditions relevant to ICT integration. In the findings are built on Rogers' (2003) and Davis, et al., (1989).³⁹ They examined the factors affecting teachers in adopting new teaching technologies and barriers emerging during adoption and concluded among other things, that trusting and reliability of technology is the most important factor in teachers' decisions whether or not to adopt ICT. Know-how, difficulty in learning, ease of use and time required to learn, was also an important factor in adoption. Believing that technology enriches and improves education, difficulty in learning and using technology and management support appears as other factors affecting adoption.⁴⁰

Demography Issues in ICT Integration in Higher Education Based on Gender

The specific characteristics of ICT create new opportunities for addressing gender issues. The "problem" of gender in relation to ICT is a numerical problem about the number of females and males using computer technology and the preferences and attitudes of males and females towards the use of ICT. Males hold the majority of high-skilled, high-value-added jobs, whereas women are concentrated in low-skilled lower-value-added jobs. Evidence suggests that females may have a stronger sense of efficacy than males due to the fact that the teaching profession predominantly is a female-dominated profession. Since the introduction of computers, ICT-related activities have been viewed as a "male domain". There is a significant body of evidence supporting the notion that gender plays a role in actual computer integration.⁴¹ For instance, in Todman⁴², male teachers

³⁸ P. Jegede, Assessment of Nigerian teacher educators' ICT training. *InSITE Conference*, 2009; E. Khvilon & M. Patru, *Information and communication technologies in teacher education: a planning guide*. Retrieved from

<https://unesdoc.unesco.org/ark:/48223/pf0000129533>. 2002.

³⁹ As cited in K. Obiri-Yeboah, O.K. Kwarteng & R. Kyere-Djan, Factors Affecting ICT Adoption in Tertiary Institutions in Ghana: A Case of Kwame Nkrumah University of Science and Technology. *International Institute for Science, Technology and Education*, 3(6), 2013, pp. 13-21.

⁴⁰ K. Obiri-Yeboah, O.K. Kwarteng & R. Kyere-Djan, *Ibid*.

⁴¹ See, G. Sang, M. Valcke, J.V. Braak & J. Tondeur, *Ibid*.

⁴² J. Todman, Gender differences in computer anxiety among university entrants since 1992. *Computers & Education*, 34(1), 2000, pp. 27-35.

are found to be more confident and less anxious about computers compared to their female counterparts. Males appear to be more positive in their attitudes toward computers than females.⁴³ Male teachers tend to score significantly higher than females. Significant differences between males and females were observed in technical ICT capabilities and sustainability.⁴⁴ Since technologies have become a normal part of the workplace setting, a number of researchers argue that computing should no longer be regarded as a male domain.⁴⁵ This emphasises the need to reconsider the potential impact of gender in the context of educational ICT use. Gender differences, especially in secondary and primary female teacher's computer attitude seems to be less positive than that of males. Female and male take on different tasks when working together on the computer and they tackle ICT tasks differently.⁴⁶ Teachers with more access to the Web for instructional purposes had higher levels of self-efficacy, and ESL teachers with better computer access had lower computer anxiety and more computer self-efficacy.⁴⁷

Research Design

The research design for this study was the descriptive survey design. The justification of this choice of design is because it is most suitable for the collection of data about the characteristics of a large population in terms of being cost effective. Moreover, questionnaire as an instrument was utilised to elicit the necessary primary data for the test of the hypotheses of the study.

⁴³ J. Šabić, B. Baranović & S. Rogošić, Teachers' self-efficacy for using information and communication technology: The interaction effect of gender and age. *Informatics in Education*, 21(2), 2021, pp. 353-373.

⁴⁴ A. Aremu & O. Fasan, Teacher Training Implications of Gender and Computer Self Efficacy for Technology Integration in Nigerian Schools. *The African Symposium: Journal of the African Educational Research Network*, II (1), 2011, pp. 178-185.

⁴⁵ See, G. Sang, M. Valcke, J.V. Braak & J. Tondeur, *Ibid*.

⁴⁶ M. Liu & R.C. Kleinsasser, Exploring EFL Teachers' Call Knowledge and Competencies: In-Service Program Perspectives. *Language Learning & Technology*, 19(1), 2015, pp. 119-138.

⁴⁷ M. Cancino & K. Towle, Relationships among higher education EFL student perceptions toward fully online language learning and computer self-efficacy, age, gender, and proficiency level in emergency remote teaching settings. *Higher Learning Research Communications*, 12(0). 2022.

Population of the Study

The population of this study comprise all undergraduate and postgraduate ELTs in all Private, and public tertiary Institutions in South-South Geopolitical Zone of Nigeria.

Sample and Sampling Procedure

The sample size of this study is one hundred teachers of the selected tertiary institutions and was categorised into the following strata: public and private universities. This sample in terms of gender was made up of 59 males and 41 females as a representative of the entire ELTs in South-South Geopolitical Zone of Nigeria. The simple random and stratified random sampling techniques were used in this study. The major reason for using stratified random sampling was to ensure adequate or proportional representation of the different categories of element that make up the population in the sample.

Research Instrument

The instrument used in collecting data from the respondents was a structured 35 items questionnaire titled: *Assessment of English Language Teachers' Self-Efficacy and Use of ICT in Teaching*. The items are formed from the research questions and other relevant educational literature. The questionnaire was made up of two sections: comprising sections A and B. Section A contains respondents' personal information such as gender, professional level, highest academic qualification and institution. Section B contains a 35 item questions to elicit information on teachers' skill level and use of ICT in instruction. Items 1-26 solicited responses on teachers' self efficacy. Respondents were requested to respond to the items on a five point likert-like-type scale questionnaire; items in the questionnaire range from "No skill at all (1) Least Skilled (2), Less Skilled (3), Skilled (4) and Highly Skilled (5); while items 27-35 solicited responses on teachers' use of ICT. Respondents were requested to respond to the items on a five point *likert*-like-type scale questionnaire; items in the questionnaire range from "Daily (5) Weekly (4) Once in a while (3) At least once a semester (2) Never (1) question items. The response scale is designed in such a way that the highest score for response to each item is 5 while the lowest scored item is 1.

Validity of the Research Instrument

The questionnaire was validated by two Instructional Technology experts and one measurement and evaluation expert in the University of Benin, Benin City, Nigeria for content validity and usability.

Reliability of Research Instrument

The reliability of the instrument was determined by administering the questionnaire to fifteen ELTs who were not part of the study but were part of the population. The data collected from these teachers were subjected to *Cronbach Alpha* reliability statistics and an a reliability coefficient of 0.75 was obtained, showing that the instrument is reliable.

Administration of the Instrument

With the cooperation and assistance of the Heads of Department of English language Departments of the selected institutions, the researchers personally administered the one hundred questionnaires to sampled teachers from the selected schools used for the sample study, out of which seventy-nine were retrieved and found usable; of these were forty-eight males and thirty-one females.

Method of Data Analysis

Statistical Package for the Social Sciences (SPSS) version 21 was used for the data analysis. The questionnaire responses were quantified and analysed using both descriptive and inferential statistics. The t-test was used to test the differences between the participants' self-assessment of Self-Efficacy and their Use of ICT tools at their disposal to teach English, as well as other variables.

Presentation and Analysis of Results

Table 1: Type of Institution

Institution Type	Public	Private	Total
No. of Respondents	69	10	79
%	87	13	100

Table 1 shows the result of the type of institutions, which are either public or private institution which the various respondents (teachers) belong. 69 of them are from public institutions, which represented 87% of the total respondents while teachers from private institutions are 10 representing 13% of teachers.

Hypothesis 1:

There is no significant difference in the use of ICT between English language teachers in Nigeria public and private tertiary institutions.

Table 2: t-test difference for ICT Use in Public and Private Institutions

Mean	Private School (4.957) Public (3.828)
t-value	-1.195
Mean dif.	1.129
Sig. 2 tail	0.411
Df	78

Table 2 reveals that the t-value for mean difference in ICT use between English language teachers in public and private tertiary institution stood at 1. 129 and the two-tailed significance value is 0.411 which is greater than the critical 0.05 test value. Hence the hypothesis that there is no significant difference in the ICT use between ELTs in public and private institution is accepted.

Hypothesis 2

There is no significant difference between male and female English language teacher Educators in their use of ICT.

Table 3: t-test for male and female ELTs' use of ICT Self-Assessment

Mean	Male (4.1195) Female (3.537)
t-value	-1.195
Mean dif.	0.5825
Sig. 2 tail	0.823
Df	78

The t-value for mean difference stood at 0.5825 and the two-tailed significance value is 0.823 which is greater than the critical 0.05 test value. Hence the hypothesis that there is no significant difference in the ICT use between English language teachers in public and private is accepted.

Hypothesis 3:

There is no significant difference in self-efficacy between male and female ELTs in Universities.

Table 4: t-test for Gender on ICT Self-Efficacy

Mean	Male (4.591) Female (3.585)
t-value	-1.471
Mean dif.	1.006
Sig. 2 tail	0.921
Df	78

Furthermore, to investigate if the aggregate mean difference between male and female ELTs, the t-statistical test was conducted and it was observed that the t-value for mean difference , stood at 1.006 and the two-tailed significance value is 0.921 which is greater than the critical 0.05 test value and hence the hypothesis that there is no significant difference in ICT self-efficacy male and female English language teachers in Universities is accepted.

Discussion of Results

Hypothesis One

First, the finding from hypothesis one indicates that there is no significant difference between ELTs in public and private universities in their use of ICT. This affirms the findings of researchers such as Odike⁴⁸ who found no significant differences between the average ratings of the Fine & applied arts teachers in the public & private secondary schools in the perception of teachers on the utilization of ICT, and Tella,⁴⁹ who agrees that significant difference does not exist in the ICT use between ELTs in public and private institutions. The result however is contrary to the findings of Ali, Ashraf, & Yasmin,⁵⁰ who found that public and private school teachers have different approaches to digital skills. Private school teachers are more innovative when it comes to digital skills.

⁴⁸ F.I. Odike, Perception of Teachers on the Use of ICT Facilities in Teaching Fine and Applied Arts in Secondary Schools in Anambra State of Nigeria. *International Journal of Innovative Social & Science Education Research*, 8(4), 2020, pp. 141-149.

⁴⁹ A. Tella, Availability and use of ICT in south-western Nigeria colleges of education. *African Research Review*, 5(5), 2011.

⁵⁰ M.S. Ali, M.N. Ashraf & A. Yasmin, Inequities of Digital Skills and Innovation: An Analysis of Public and Private Schools in Punjab. *Bulletin of Education and Research*, 42(2), 2020, pp.97-112.

Hypothesis Two

Secondly, hypothesis two-result findings show that no difference exists between the male and female educators in their self-assessment of ICT use. The reason for this result could be because ICT has become normalized in today's world and has become a strong tool shaping the educational world. So both males and females have access to it and are trained on the use of it. This finding is in agreement with the findings of Fomsi & Orduah⁵¹, Mwila⁵², but in contrast to the findings of Arhin, *et al*⁵³, Brown & Czerniewicz⁵⁴, Markauskaite⁵⁵, Morahan-Martin⁵⁶, Nsibirano⁵⁷, and Sang, *et. al*⁵⁸, who found a difference between the male and female in their self-assessment in the use of ICT.

Hypothesis Three

Thirdly the findings of the study from hypothesis three reveals that no significant difference exists in ICT self-efficacy between male and female ELTs in universities. This finding is in agreement with the findings of Tijani & Tolorunleke⁵⁹ who found no significant difference between male and female Basic Technology teachers in their self-efficacy in the use

⁵¹ E.F. Fomsi & S.E. Orduah, Gender differences in the use of ICT among teachers in model primary schools in Rivers State, Nigeria. *British Journal of Education*, 5(4), 2017, 88-94.

⁵² P. Mwila, Assessing the attitudes of secondary school teachers towards the integration of ICT in the teaching process in Kilimanjaro, Tanzania. *International Journal of Education and Development using Information and Communication Technology*, 14(3), 2018, pp. 223-238.

⁵³ D. Arhin, K. Kwakye, L.Q. Quaynor, R.O. Boakye & J.A. Yeboah, Influence of teachers' self-efficacy and attitude towards the integration of ICT into teaching and learning at the basic school level. *American Journal Education and Practice*, 6(1), 2020, pp. 36-45.

⁵⁴ C. Brown & L. Czerniewicz, *Making sense of Gender and ICTs in Education: Exploring theoretical explanations for complex findings*. A paper presented at the University of Cape Town conference on ICT usage, 2008.

⁵⁵ L. Markauskaite, Gender issues in preservice teachers' training: ICT literacy and online learning. *Australasian Journal of Educational Technology*, 22(1), 2006, pp. 1-20.

⁵⁶ J. Morahan-Martin, Women and the Internet: Promise and Perils. *Cyber Psychology and Behavior*, 3 (5), 2000, pp. 683-691.

⁵⁷ R. Nsibirano, "Him and her" - Gender differentials in ICT uptake: A critical literature review and research agenda. *International Journal of Education and Development using Information and Communication Technology*, 5 (5), 2000, pp. 33-42.

⁵⁸ See, G. Sang, M. Valcke, J.V. Braak & J. Tondeur, *Ibid*.

⁵⁹ A.A. Tijani & E.A. Tolorunleke, Teachers' self-efficacy in the use of information and communication technology for teaching basic technology in Ilorin Metropolis. *Ilorin Journal of Education (IJE)*, 43 (2), 2023, pp. 29-41.

of ICT, but contrary to the findings of researchers such as Todman⁶⁰, Kiptum⁶¹ Sang, *et. al.*⁶² who found a significant differences between teachers gender on their ICT self-efficacy.

Summary

This study was to ascertain the level of ICT skills and technological integration in classroom by ELTs looking at their self-assessment based on gender and university type. The data for the study were collected from four universities in South-South Geo-Political Zone of Nigeria. Data collected were analysed using t-test of independent samples at 0.05 level of significance. The finding of the study revealed that there was no significant difference in the ICT use between ELTs in public and private universities; no significant difference between the male and female educators in their self-assessment of ICT use and no significant difference in ICT self-efficacy between male and female ELTs in universities in South-South Geopolitical Zone of Nigeria.

Conclusion

Based on the result of the study, it can be seen that the main objective to ascertain gender differences of ELTs' self-efficacy and use of ICT in Universities in south-south geo-political zone, Nigeria and the individual ELT's perception of their skills to use ICT as tools for teaching and learning has been achieved. This research examined gender differences of ELTs' self-efficacy and use of ICT in universities in south-south geo-political zone, Nigeria. The result obtained from the data gathered and analysed in this study indicated that the ELTs in both private and public universities use ICT for teaching. The findings of this research also established that ELTs' self-efficacy and the use of ICT is moderate. ELTs are proficient in their skills possessed in the use of ICT. ELTs derive benefits from the use of ICT for teaching. Finally, it can be concluded that ELTs' self-efficacy and use of ICT in Universities in south-south geo-political zone, Nigeria is not influenced by gender. Thus, the study concluded that: there is no difference in the self-assessment of ELTs' use

⁶⁰ J. Todman, Gender differences in computer anxiety among university entrants since 1992. *Computers & Education*, 34(1), 2000, pp. 27-35.

⁶¹ J.C. Kiptum, ICT framework for adoption in the dissemination of agricultural information in Kenya: Case study of agricultural development corporation. Master of Science Thesis, University of Nairobi, 2016.

⁶² See, G. Sang, M. Valcke, J.V. Braak & J. Tondeur, *Ibid.*

of ICT in South-South zone of Nigeria. The study also revealed an existence of self-efficacy challenges amongst language teachers especially on the use of telecommunication and Internet. This may prevent teachers' ICT integrated teaching and learning activities and ELT's self-assessments level of skills in integrating ICT into teaching and learning especially at a professional level.

Recommendations

In order to have a positive perception of ELT skills: self-efficacy and use of ICT in universities in the South-South Zone of Nigeria, the researchers in view of the conclusion in the foregoing section, presents the following recommendations:

1. Quality preparation on ICT should be introduced to in-service teachers generally so that on graduation, they will integrate ICT in their teaching. For educators and researchers at all levels to have a high-self efficacy, there is a need or the exposure and awareness on the need to have adequate ICT information and skills; and to take responsibility to upscale their skills of ICT where and when required.

2. The study also recommends that government, policy makers and educational planners should make useful policies to provide the necessary information required on the importance of using ICT in teaching in tertiary education. This will enable the government to make direct decisions regarding the provision of the ICT facilities as teaching aids in tertiary institutions. Teachers should not only be ICT literate, but encouraged in the use of ICT in their day-to-day learning and teaching activities.⁶³ Teachers irrespective, of gender should be motivated with facilities and structures to access the web for instructional and collaborative purposes. This may lead to greater level of competence and self-efficiency.

3. The study provided information needed on the level of preparedness of faculty (teachers) to use the available ICT Facilities in schools of higher learning. There is therefore a need for a general awareness and enlightenment by way of in-service professional development in the use of ICT for educators; since technologies have become an integral part of the workplace and classroom settings.

⁶³ P. Askar & A. Umay, Perceived computer self-efficacy of the students in the elementary mathematics teaching programme. *Hacettepe University Journal of Education*, 21, 2001, pp. 1-8.

Therefore, teachers should be provided with the necessary incentives to acquire knowledge and skills in the use of ICT, such incentives should include sponsorship of teachers to ICT oriented conferences, workshops, seminars and even higher degree programmes in ICT university teachers.

4. Also, grants should be granted for teachers to acquire technological skills, as professional development is a catalyst for change in pedagogical practice to provide effective in-service teacher professional development.⁶⁴

5. Finally, ICT in academics should no longer be regarded as a male domain but one for all, as the issues of the skills teachers need to have in the use of technology for effective teaching has been our intense discussion which concur with recent suggestions⁶⁵

Suggestion for Further Research

The researchers are highly of the opinion of the need to provide effective in-service teacher professional development.⁶⁶ In line with the recommendations above, the following topics are suggested for further studies:

1. Assessment of the available Professional Development Programmes and incentives to motivate teachers in their ICT integration.

2. An on-going Teacher Professional Development Programmes and Training is critical to the successful utilisation of ICT in Education

3. Assessment of teachers' Professional Development Programmes as a process not an event.

⁶⁴ See, M.A. Adarkwah & Y.K. Mekonen & U. Kalim, Teacher Professional Development as a Catalyst for Faculty Development: The Case of a University in China. *Journal of Education and Training Studies*, 9(5), 2021, pp. 1-15; K.A. Lawless & J.W. Pellegrino, Professional development in integrating technology into teaching and learning: Knowns, unknowns, and ways to pursue better questions and answers. *Review of Educational Research*, 77(4), 2007, pp. 575-614.

⁶⁵ Cf, J.B. Adegbenro, M. T. Gumbo & E.E. Olakanmi, In-Service Secondary School Teachers' Technology Integration Needs in an ICT Enhanced Classroom: *The Turkish Online Journal of Educational Technology* 16 (3), 2017, pp 79-87.

⁶⁶ Cf, J. Hughes, Technology Learning Principles for Pre-service and In-service Teacher Education. *Contemporary Issues in Technology and Teacher Education*, 4(3), 2004, pp. 345-362; P. Mishra & M.J. Koehler, Technological Pedagogical Content Knowledge: A framework for teacher knowledge. *Teachers College Record*, 108 (6), 2005, pp. 1017-1054.

REFERENCES:

Adarkwah, M.A. & Mekonen, Y.K. & Kalim, U., (2021), Teacher Professional Development as a Catalyst for Faculty Development: The Case of a University in China, *Journal of Education and Training Studies*, 9(5), 1-15.

Adegbenro, J.B., Gumbo, M.T., Olakanmi, E.E., (2017), In-Service Secondary School Teachers' Technology Integration Needs in an ICT Enhanced Classroom: *The Turkish Online Journal of Educational Technology* 16 (3), 79-87.

Adomi, E., (2010), *Handbook of Research on Information Communication Technology Policy: Trends, Issues and Advancements*. IGI Global.

Aduwa-Ogiegbaen S. E. O., (2009), Nigerian In-service Teachers' Self-Assessment in Core Technology Competences and their Professional Development Needs in ICT. *Journal of Computing in Teacher Education*, 26(1), 17-28. Retrieved from

<https://files.eric.ed.gov/fulltext/EJ856113.pdf>

Akudolu L., (2008), Quest for Teacher Needed Competencies for Instructional Use of ICT: Views from European Union (EU). *Nigeria Journal of Teachers Education*, 1(4). Retrieved from

<https://www.lilianrita.com/docs3/lilian-docs3b/QUEST%20FOR%20TEACHER%20NEEDED%20COMPETENCIE S.doc>

Ali, M.S., Ashraf, M.N. & Yasmin, A., (2020), Inequities of Digital Skills and Innovation: An Analysis of Public and Private Schools in Punjab. *Bulletin of Education and Research*, 42(2), 97-112.

American Council on the Teaching of Foreign Languages (2012). ACTFL proficiency guidelines. Retrieved from:

www.actfl.org/sites/default/files/pdfs/public/ACTFLProficiencyGuidelines2012FINAL.

Aremu, A., & Fasan, O., (2011), Teacher Training Implications of Gender and Computer Self Efficacy for Technology Integration in Nigerian Schools. *The African Symposium: Journal of the African Educational Research Network*, II (1), 178-185.

Arhin, D., Kwakye, K., Quaynor, L., Q., Boakye, R., O. & Yeboah, J., A., (2022), Influence of Teachers' Self-efficacy and Attitude towards the Integration of ICT into Teaching and Learning at the Basic School Level. *American Journal Education and Practice*, 6, (1), 36-45, 2022<https://doi.org/10.47672/ajep.999>

Askar, P.; & Umay. A., (2001), Perceived Computer Self-efficacy of the Students in the Elementary Mathematics Teaching Programme. *Hacettepe University Journal of Education*. 21. 1-8.

Asprilla, J.Y., M., (2022), Importance of ICT for Social Science Teaching in Higher Education. *Webology*, 19 (2), 2486-2498.

Bandura, A., (1977), Self-efficacy: Toward a Unifying Theory of Behavioral Change. *Psychological Review*, 84(2), 191-215.

Brown, C. & Czerniewicz, L., (2008), *Making Sense of Gender and ICTs in Education: Exploring Theoretical Explanations for Complex Findings*. A Paper Presented at the University of Cape Town conference on ICT usage.

Bature, A.I. & Isanbor, P.O., (2019), Philosophy of EFA and ICT Employment in ODL Arrangement for National Educational Development. *Benin Journal of Religions and Society*, 3(1), 1-12.

Cancino, M., & Towle, K., (2022), Relationships among Higher Education EFL Student Perceptions toward Fully Online Language Learning and Computer Self-efficacy, Age, Gender, and Proficiency Level in Emergency Remote Teaching Settings. *Higher Learning Research Communications*, 12(0). doi:10.18870/hlrc.v12i0.1317

Davis, F.D., (1986), *The Technology Acceptance model for Empirically Testing new End-user Information Systems: Theory and Results*. PhD Dissertation Massachusetts Institute of Technology.

Fomsi, E.F. & Orduah, S.E., (2017), Gender Differences in the Use of ICT among Teachers in Model Primary Schools in Rivers State, Nigeria. *British Journal of Education*, 5(4), 88-94.

Ghavifekr, S., & Rosdy, W. A. (2015). Teaching and Learning with Technology: Effectiveness of ICT Integration in Schools. *International Journal of Research in Education and Science*, 1(2), 175-191. doi:10.21890/ijres.23596

Granger, C., Morbey, M., Lotherington, H., Owston, R., & Wideman, H., (2002), Factors contributing to Teachers' Successful Implementation of IT. *Journal of Computer Assisted Learning*, 18(4), 480-488. doi:10.1046/j.0266-4909.2002.00259.doc.x

Hughes, J., (2004), Technology Learning Principles for Pre-service and In-service Teacher Education. *Contemporary Issues in Technology and Teacher Education*, 4(3), 345-362.

Husain, N., (2010), Teacher Competencies for the Use of Information Communication Technology. *Journal of Indian Education*. Vol. XXXVI, 23-34.

Ismail, R., Hussein, A., & Saw, O. L., (2012), A Factor Analysis of Teacher Competency in Technology. *New Horizons in Education*, 60(1), 13-22. Retrieved from <https://files.eric.ed.gov/fulltext/EJ974075.pdf>

Jegede, P., (2009), Assessment of Nigerian Teacher Educators' ICT Training. *InSITE Conference*. doi:10.28945/3337

Kalim, U., (2021), The Growing Role of Big Data in Education and its Implications for Educational Leadership. *International Journal of Research and Innovation in Social Science*, 5(1), 257-262.

Karaseva, A., Siibak, A., & Pruulmann-Vengerfeldt, P., (2015), Relationships between Teachers' Pedagogical Beliefs, Subject Cultures, and Mediation Practices of Students' Use of Digital Technology. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 9(1).

Khvilon E. & Patru M., (2002), *Information and Communication Technologies in Teacher Education: A Planning Guide*. Retrieved from <https://unesdoc.unesco.org/ark:/48223/pf0000129533>

Kiptum, J.C., (2016), *ICT Framework for Adoption in the Dissemination of Agricultural Information in Kenya: Case Study of Agricultural Development Corporation*. Master of Science Thesis, University of Nairobi.

Lawless, K.A., & Pellegrino, J.W., (2007), Professional Development in Integrating Technology into Teaching and Learning: Knowns, Unknowns, and Ways to Pursue Better Questions and Answers. *Review of Educational Research*, 77(4), 575-614.

Liu, M., & Kleinsasser, R. C., (2015), Exploring EFL Teachers' Call Knowledge and Competencies: In-Service Program Perspectives. *Language Learning & Technology*, 19(1), 119-138. Retrieved from

https://www.researchgate.net/publication/281751213_Exploring_efl_teachers'_call_knowledge_and_competencies_In-service_program_perspectives

Markauskaite, L., (2006), Gender Issues in Pre-service Teachers' Training: ICT Literacy and Online Learning. *Australasian Journal of Educational Technology*, 22(1). 1-20.

Mishra, P. & Koehler, M.J., (2005), Technological Pedagogical Content Knowledge: A Framework for Teacher Knowledge. *Teachers College Record*, 108 (6), 1017-1054.

Morahan-Martin, J., (2000), Women and the Internet: Promise and Perils. *Cyber Psychology and Behavior*, 3 (5), 683-691

Mukuna, T., (2013), Integration of ICT into Teacher Training and Professional Development in Kenya. *Makerere Journal of Higher Education*, 5(1), 3. doi:10.4314/majohe.v5i1.1

Mwila, P., (2018), Assessing the Attitudes of Secondary School Teachers towards the Integration of ICT in the Teaching Process in Kilimanjaro, Tanzania. *International Journal of Education and Development using Information and Communication Technology*, 14(3), 223-238.

Nsibirano, R., (2009), "Him and her" - Gender differentials in ICT uptake: A critical literature review and research agenda. *International Journal of Education and Development using Information and Communication Technology*, 5 (5), 33-42.

Obiri-Yeboah K., Kwarteng, O. K., & Kyere-Djan R., (2013), Factors Affecting ICT Adoption in Tertiary Institutions in Ghana: A Case of Kwame Nkrumah University of Science and Technology. *International Institute for Science, Technology and Education*), 3(6), 13-21. Retrieved from <https://core.ac.uk/download/pdf/234671410.pdf>

Odike, F.I., (2020), Perception of Teachers on the Use of ICT Facilities in Teaching Fine and Applied Arts in Secondary Schools in Anambra State of Nigeria. *International Journal of Innovative Social & Science Education Research*, 8(4), 141-149.

Player-Koro, C., (2012), Factors influencing Teachers' Use of ICT in Education. *Education Inquiry*, (1), 93-108. doi.org/10.3402/edui.v3i1.22015

Rogers, M. E., (2003), Diffusion of Innovations, 5th ed. New York: The Free Press.

Ruto, L. K., (2022), Teaching and Learning with Technology: Effectiveness of ICT Integration in Science, Technology, English and Mathematics (STEM) Teaching and Learning in African Digital Schools Initiative (ADSI) Schools in Narok County. *World Journal of Innovative Research*, 13(1), 9-9. doi:10.31871/wjir.13.1.9

Šabić, J., Baranović, B., & Rogošić, S., (2021), Teachers' Self-efficacy for using Information and Communication Technology: The Interaction Effect of Gender and Age. *Informatics in Education*, 21(2), 353-373. doi:10.15388/infedu.2022.11

Sang, G., Valcke, M., Braak, J. V., & Tondeur, J., (2010), Student Teachers' Thinking Processes and ICT Integration: Predictors of Prospective Teaching Behaviors with Educational technology. *Computers & Education*, 54(1), 103-112. doi:10.1016/j.compedu.2009.07.010

Stanley, T., (2021), The Importance of 21st-Century Skills. *Authentic Learning*, 17-28. doi:10.4324/9781003233152-3

Tella, A., (2011), Availability and Use of ICT in South-Western Nigeria Colleges of Education. *African Research Review*, 5(5). doi:10.4314/afrrrev.v5i5.25

The Global Information Technology Report 2003–2004 (2004): Towards an Equitable Information Society (GITR). New York: Oxford University Press, Inc.

Tijani, A., A. &Tolorunleke, E., A., (2023), Teachers' Self-efficacy in the Use of Information and Communication Technology for Teaching Basic Technology in Ilorin Metropolis. *Ilorin Journal of Education*, 43 (2), 29-41.

Todman, J., (2000), Gender Differences in Computer Anxiety among University Entrants since 1992. *Computers & Education*, 34(1), 27-35. doi:10.1016/s0360-1315(99)00036-6

UNESCO, (2018). *UNESCO ICT Competency Framework for Teachers*. (3rd Ed.). Paris: UNESCO Publishing.

Zehir, C., Muceldili, B., Akyuz, B., & Celep, A., (2010), The Impact of Information Technology Investments on Firm Performance in National and Multinational Companies. *Journal of Global Strategic Management*, 4(1), 143-154.

Zhao, X., Lynch, J.G., & Chen, Q., (2010), Reconsidering Baron and Kenny: Myths and Truths about Mediation Analysis. *Journal of Consumer Research*, 37(2), 197-206. doi:10.1086/651257.

STUDENTS' IC LEVELS IN CLIL AND EMI PROGRAMMES: COMPARATIVE STUDY OF SPANISH AND UKRAINIAN MA STUDENTS

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Abstract: *Internationalization of higher education resulted in the introduction of various innovations into the study process, including English language instruction, novel teaching methodologies, diverse classroom assessment techniques, and more. The evolving nature of global education and the need for individuals to navigate and thrive in diverse, multicultural environments underscores the significance of intercultural competence for all individuals involved in this educational context. The aim of this study is to measure and compare the students' Intercultural Competence (IC) levels in English-Medium Instruction (EMI) and Content and Language Integrated Learning (CLIL) settings to detect whether CLIL programmes are more effective for students' IC development. The research is conducted within tertiary education settings in Ukraine (Vasyl Stefanyk Precarpathian National University) and Spain (Universidad Complutense de Madrid) correspondingly. This comparative approach focuses on assessing students' IC using both quantitative and qualitative methods. Quantitative data (collected through a self-rating IC scale) and qualitative data (obtained from students' interviews) were analysed for a comprehensive understanding of IC in both contexts.*

Keywords: *intercultural competence, internationalization, EMI, CLIL, tertiary education, master students.*

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Introduction

Rapid internationalization of education caused by globalization and digitalization processes predetermines changes in the teaching methods and approaches. Numerous studies of the effective means to create educational programmes, supporting students in obtaining the necessary skills to be successful on the job market, prove the importance of intercultural competence (IC) development, through language learning in particular.

The pragmatic phenomenon of language use across the cultures reflects the ability to be interculturally competent. Language knowledge is a tool for learning both one's own and another culture. Therefore, knowledge of the language of another culture is inevitable for intercultural competence, as it provides an adequate understanding of the cultural characteristics of another country. Language knowledge allows the individual to adapt their behaviour to the behaviour of others, which means that they develop a higher ability to intercultural communication, i.e. to adequate mutual understanding of communication participants belonging to different cultures. Language knowledge also forms personal qualities of the participant of communication – openness, tolerance and willingness to communicate with representatives of another culture. Furthermore, research approves the interconnection between foreign language learning and cultural awareness¹. Thus, foreign language learning and teaching as fields of major opportunities of culture learning are under the scope of this investigation.

At present higher educational institutions implement two major programmes incorporating the use of a foreign language in learning of academic subjects: English Medium Instruction (EMI) and Content and Language Integrated Learning (CLIL). Being alike in foreign language usage in the process of learning, these approaches differ in the learning objectives. CLIL approach is characterized by explicit both content and language learning objectives, as well as a dominant role of content,

¹ M. Byram, (1997). *Teaching and assessing intercultural communicative competence*. Clevedon: Multilingual Matters Ltd.; D. K. Deardorff, (2006). *Assessing Intercultural Competence in Study Abroad Students*. In M. Byram, and A. Feng, (Eds.) 2006. *Living and Studying Abroad. Research and Practice*, (pp. 232-256). Clevedon: Multilingual Matters; C. Maíz-Arévalo, & E. Orduna-Nocito, (2021). *Developing intercultural Communicative Competence: A cornerstone in EMI in-service training programmes in higher education*. *Revista Alicantina De Estudios Ingleses*, (34), 159.

communication, cognition and culture components in the learning process. While EMI programmes focus on content, while language learning objectives are not explicit. Therefore, our research aims at measuring and comparing the students' IC levels in EMI and CLIL settings to detect whether the key role of culture within CLIL approach makes CLIL programmes to be more relevant and effective for students' IC development.

Theoretical background

Trends in modern society, integration and globalization processes, resulted in the learners' needs to obtain the professional competence which includes generated theoretical and practical knowledge, skills and abilities to interact with representatives of other cultures, in order to effectively implement the goals and objectives in the professional sphere. It predetermined the study of intercultural communication in the 1950s². Among numerous studies we can find the works of Condon & Yousef³, Gudykunst & Kim⁴, and others devoted to various aspects of intercultural communication and intercultural competence within more than 50 years. These investigations provide the techniques for the development of competence in intercultural interaction of the individual regardless of the sphere and peculiarities of their activities.

Origins and development of the notion "intercultural competence" and its elements

The term "intercultural competence" evolutionized from studying the specifics of intercultural communication into the independent scientific discipline in the process of active research in this field and the publication of numerous books by such researchers as Bennet⁵, Byram⁶, Deardorff⁷,

² E. Hall, (1959), *The silent language*. New York: Doubleday & Company, Inc.; Smith, M.B. (1966). Explorations in competence: A study of Peace Corps teachers in Ghana. *American Psychologist*, 21(6), 555-566.

³ J.C., Condon, & F.S., Yousef, *An introduction to intercultural communication*. Bobbs-Merill, (1975).

⁴ W. Gudykunst, (1997), *Communication with strangers: An approach to intercultural communication*. Boston: McGrawHill; W.B. Gudykunst, & Y.Y. Kim, (1984). *Communication with strangers: An approach to intercultural communication*. New York: Random House.

⁵ M.J. Bennett, Becoming interculturally competent. In J.S. Wurzel (Ed.) *Toward multiculturalism: A reader in multicultural education*. Newton, MA: Intercultural Resource Corporation, 2004.

Hall⁸, Smith⁹, Samovar and Porter¹⁰, Condon and Yousef¹¹, Gudykunst and Kim¹² and others.

IC is defined as “an ability to communicate effectively and appropriately in intercultural situations”¹³, which incorporates the ability of handling problems induced by intercultural contact”¹⁴.

It is considered that intercultural competence comprises knowledge, skills, abilities, attitudes and the experience of intercultural communication as an activity¹⁵.

According to Byram¹⁶, the structure of intercultural competence consists of the following components: 1) the ability to overcome misunderstandings that arise in the process of intercultural interaction; 2) the ability to explain the mistakes of intercultural interaction; 3) the desire and readiness to discover something new; 4) the ability to gain knowledge about another cultural reality and use them to penetrate into foreign culture; 5) the ability to establish and maintain communication between native and foreign language culture; 6) to accept the peculiarities of other people’s culture, to critically evaluate one's own culture; 7) the curiosity and openness towards other individuals; 8) the readiness to

⁶ M. Byram, *Teaching and assessing intercultural communicative competence*. Clevedon: Multilingual Matters Ltd, 1997.

⁷ D.K. Deardorff, Assessing Intercultural Competence in Study Abroad Students. In Byram, M. and Feng, A. (Eds.) 2006. *Living and Studying Abroad. Research and Practice*, (pp. 232-256). Clevedon: Multilingual Matters.

⁸ E. Hall, *The silent language*. New York: Doubleday & Company, Inc, 1959.

⁹ M. B. Smith, Explorations in competence: A study of Peace Corps teachers in Ghana. *American Psychologist*, 21(6), 1966, 555-566.

¹⁰ L.A. Samovar, & R.E. Porter, *Intercultural communication a reader*. Wadsworth Publishing Company, 1994.

¹¹ J.C. Condon, & F.S. Yousef, *An introduction to intercultural communication*. Bobbs-Merill, 1975.

¹² W.B. Gudykunst, & Y.Y. Kim, *Communication with strangers: An approach to intercultural communication*. New York: Random House, 1984.

¹³ D.K. Deardorff, Assessing Intercultural Competence in Study Abroad Students. In Byram, M. and Feng, A. (Eds.). *Living and Studying Abroad. Research and Practice*, (pp. 232-256). Clevedon: Multilingual Matters, 2006, p. 247.

¹⁴ Y. Guo, (), The concept and development of intercultural competence. In Tsai, Y., & Houghton, S. (Ed.), *Becoming intercultural: Inside and outside the classroom* (pp. 23-47). Cambridge Scholars Publishing, 2017, p. 27.

¹⁵ M. Byram, G. Zarate, *Investigating Cultural Studies in Foreign Language Teaching*. Clevedon, Philadelphia, cop., 1991, p. 15.

¹⁶ M. Byram, *Teaching and assessing intercultural communicative competence*. Clevedon: Multilingual Matters Ltd., 1997, p. 5.

accept other opinions; 9) the ability to determine the level of ethnocentrism; 10) the ability to overcome ethnocentric attitudes and prejudices. In addition, the structure of intercultural competence can be complemented by the people's values formed due to belonging to certain social groups and a certain society.

Gudykunst¹⁷ provides a generalized three-component model of intercultural competence: 1) motivational factors (the needs of participants of interaction, their mutual attraction, the openness of the individual to the new information, etc.); 2) knowledge factors (expectations, general information networks, ideas about different points of view, knowledge about the existence of alternative interpretations, knowledge of similarities and differences); and 3) skills factors (the ability to empathize, to adapt communication, to be tolerant to ambiguity, to change behaviour and to gather new relevant information).

Intercultural competence development in educational processes

In the 21st century responsibility for providing students with “the knowledge and skills necessary to become productive members of society”¹⁸ is taken by the educational systems. Students are prepared to be capable to behave and communicate effectively across the cultures, to work in different settings and demonstrate “attitudes that move beyond ethnocentric thinking”¹⁹. The effectiveness of the resulting internationalization of tertiary education provides opportunities for teachers and students, as well as universities in general. It is considered that international and intercultural learning experience will help to expand students' employability chances²⁰.

Rubinfeld et al.²¹ emphasize the possibility of personal changes through foreign language learning. It was mentioned that L2 learning has a positive impact on students' representation of the L2 community, thus it

¹⁷ W. Gudykunst *Communication with strangers: An approach to intercultural communication*. Boston: McGrawHill, 1997.

¹⁸ P. Garrett-Rucks, *Intercultural competence in instructed language learning: Bridging theory and practice*. Information Age Publishing, Inc., 2016, p. 4.

¹⁹ Ibid., p. 4.

²⁰ E. Arnó-Macià, & M. Aguilar, ESP, EMI AND interculturality: How internationalised are university curricula in Catalonia? *ESP Today*, 6(2), 184–207, 2018, p. 185.

²¹ S. Rubinfeld, R. Clement, J. Vinograd, D. Lussier, Amireault Valérie, Auger Réjean, & M. Lebrun, Becoming a cultural intermediary. *Journal of Language and Social Psychology*, 26(2), 182–203, 2007, p. 184.

may serve as a way to discover, understand and accept another culture, as well as to become conversant with beliefs, know-how, and values. Byram et al.²² mentioned the importance to teach “language-and-culture as an integrated whole”. Although many curricula do emphasize the importance of developing intercultural competence, in practice there are still gaps in this area (for instance in the differences between CLIL and EMI programmes in development of IC), and more attention to intercultural dimension is needed in teacher training, inspectors’ reports, and so forth.

IC development and EMI

According to Jenkins²³ in terms of EMI implementation the key point for students is their “studying not English, but through English” and language itself serves as a communicational tool. Thus, it could be stated that EMI is understood as an approach where English is used as a lingua franca (ELF) for educational purposes in the university²⁴.

The EMI course at university can follow with several learning outcomes for students. It could include language proficiency development, or its learning as a skill for a global market, to be able to cope with cultural differences, to solve cultural misunderstandings, etc. Despite EMI popularity in tertiary education as well as IC need for global market, the main focus of the mentioned educational approach is still on disciplinary rather than cultural competence²⁵.

The use of language as a medium of instruction proceeds with the emphasis on instructors as multicultural managers in the classroom whose language and communicative competence delivery play the key role in a content classroom. Therefore, the university EMI classes are teacher-centered, students’ interaction is also facilitated by teachers, and the expected learning outcome is students’ disciplinary competence, which to some extent includes language proficiency and intercultural communicative competence, but does not deal with them equally as for instance in CLIL classroom.

²² P.M. Byram, A. Nichols, & D.D. Stevens, (Eds.). *Developing intercultural competence in practice*. ProQuest Ebook Central, 2001, p. 1.

²³ J. Jenkins, English medium instruction in higher education: The role of English as lingua franca. *Springer International Handbooks of Education*, 1–18, 2018, p. 13.

²⁴ See Ibid.

²⁵ TAEC EMI Handbook (2019). TAEC Erasmus+ project (2017-2020), p. 11.

IC development and CLIL

The issue of language and content integration has become very important in the internationalization of higher education in Europe. The main goal of CLIL in Europe is intercultural development of individuals, who are able to interact with representatives of other cultures “on a basis of flexibility, mutual respectfulness and understanding”²⁶. Despite the fact that intercultural competence “is not ‘automatically’ inherent in CLIL”, it is “one of the greatest potentials of CLIL”²⁷.

Studies that have been conducted with regard to CLIL and its effects in higher education²⁸ emphasize on students’ linguistic and cognitive skills simultaneous development. As it is mentioned by Hansen-Pauly²⁹ CLIL as an approach which helps to “transform knowledge into understanding” has been foregrounded as a tool for intercultural learning. In this direction, CLIL is practically the only dual-aimed methodology that aims at integrative learning in which cultural awareness is one of its key elements. Furthermore, CLIL also adapts to the cultural environment of the place where it had been implemented what makes it a universal approach³⁰.

In comparison with EMI where the main objective usually is content learning while the language learning objectives are implicit³¹, CLIL, emphasizes on its dual focus on integrative learning of content and foreign

²⁶ Coyle, 2009, as cited in Méndez García, M. del. (2012). The potential of CLIL for intercultural development: A case study of Andalusian bilingual schools. *Language and Intercultural Communication*, 12(3), 196-213, p. 199.

²⁷ Ibid., p. 199.

²⁸ See D. Coyle, (2006), *Developing CLIL: towards a theory of practice*. In Monographs, 6. *CLIL in Catalonia, from theory to practice*, pp. 5-29. Barcelona: APAC; Dalton-Puffer, C., T. Nikula, & U. Smit, (2010). *Language use and language learning in CLIL classrooms*. John Benjamins Publishing Company.

²⁹ Hansen-Pauly, 2009, as cited in B. Strotmann, V. Bamond, Lago J.M., López M. Bailen, S. Bonilla, & F. Montesinos, (2014). Improving bilingual higher education: Training university professors in content and language integrated learning. *Higher Learning Research Communications*, 4(1), 91-97, p. 92.

³⁰ D. Coyle, P. Hood, & D. Marsh, (2010). *CLIL: Content and language integrated learning*. Cambridge, UK: Cambridge University Press.

³¹ B. Strotmann, V. Bamond, Lago J. M. López, M. Bailen, S. Bonilla, & F. Montesinos, (2014), Improving bilingual higher education: Training university professors in content and language integrated learning. *Higher Learning Research Communications*, 4(1), 91-97, p. 93.

language. Furthermore, it was stated by Coyle's 4Cs Framework³² that culture and communication are determinant elements of language learning in CLIL setting. Consequently, students have an opportunity to better comprehend and understand the culture of the language being studied, which leads to the development of intercultural competence of students.

Methodology

Research context and participants

All the participants in this study were Master's students of two national universities: Universidad Complutense de Madrid (UCM) (Spain) and Vasyl Stefanyk Precarpathian National University (PNU) (Ukraine). These universities adhere to the norms and standards of the Bologna system, a European framework for higher education. A total of 22 Master's students from the target universities, took part in the study by completing questionnaires and participating in online interviews as part of the research process.

Data collection and procedure

The researchers employed a mixed-methods approach, incorporating both qualitative (for collecting and analyzing data obtained from interviews) and quantitative (for statistical analysis using Google Sheets and the Mann-Whitney U test) research methods.

The study was conducted on the basis of an anonymous questionnaire comprising 12 close-ended statements that portrayed various situations commonly encountered in immersion environments, encompassing scenarios that students had experienced or could potentially encounter. It was developed taking into account the 24-item scale coined by Chen and Starosta³³ for measuring the ICC. It aimed at capturing the students' attitudes toward situations that are likely to occur in immersion environments, including those they have already encountered and those they might encounter in the future.

³² Coyle, 1999, 2007, as cited in B. Strotmann, V. Bamond, Lago J.M. López, M. Bailen, S. Bonilla, & F. Montesinos, (2014), Improving bilingual higher education: Training university professors in content and language integrated learning. *Higher Learning Research Communications*, 4(1), 91-97, p. 93.

³³ G.M. Chen, & W.J. Starosta, (2000), The development and validation of the intercultural sensitivity scale. *Human Communication*, 3, 1-15.

A standardized open-ended interview of five qualitative questions aimed to uncover the participants' individual comprehension of intercultural competence (IC) and their perspectives regarding the role of culture and communication in its development.

The study followed a sequential approach, beginning with the completion of the quantitative questionnaire aimed at examining the intercultural competence of students who had undergone language learning through English-Medium Instruction (EMI) or Content and Language Integrated Learning (CLIL). Subsequently, the qualitative interviews were conducted to investigate differences and commonalities in the Master's students' understanding of intercultural competence and their perspectives on the subject. Following the completion of the questionnaires, the participants proceeded with the interviews. The data collection process was facilitated through Google Forms Questionnaire, and the resulting data was automatically organized into Google Sheets. Subsequently, statistical analyses were carried out using specialized formulas to determine the mean and standard deviation values, employing the "AVERAGE" and "STDEV" functions, respectively.

Results

This section is subdivided into two distinct subsections: students' questionnaire results and interview analysis. The former subsection scrutinizes the level of intercultural competence (IC) awareness among students enrolled in selected Spanish and Ukrainian universities who have undergone language instruction through EMI or CLIL. It presents a statistical overview of the gathered questionnaire data. The latter subsection offers a comprehensive summary of the outcomes derived from open-ended questions posed to the students during interviews.

Students' questionnaire results

The table below displays the mean and standard deviation values for two groups of students: UCM MA students and PNU MA students. These values are associated with each statement in the questionnaire.

Table 1: Mean and standard deviation

Statement	UCM MA Students		PNU MA Students	
	Mean	Stand. Deviat.	Mean	Stand. Deviat.
1. People of different nationalities and religions arouse my interest in communicating with them.	5.63	0.504	5.36	0.924
2. It is easy for me to adapt when I come to a foreign country.	4.63	0.809	4.54	1.213
3. I have no barriers in communication with people from different language communities and cultures.	4.9	1.044	4.63	0.924
4. I respect other people's culture and values.	5.81	0.404	5.81	0.404
5. I feel uncomfortable in new/not familiar to me environments.	3.63	1.286	2.9	1.3
6. When I meet foreign people abroad, I see how different we are.	4.27	0.786	3.9	1.578
7. I often start the conversation with students in my group because I am interested in their cultural, social, etc. background.	3.9	1.758	4.54	1.507
8. I know some facts about different cultures (such as food, traditions, famous places etc.) which help me in communication with people from different cultures.	4.81	1.078	5.45	0.934
9. English language learning inspires me to travel abroad and to communicate with foreign nationalities.	5.72	0.467	5.81	0.404
10. It's hard for me to understand and accept other cultures' traditions and worldview.	1.54	0.82	2.09	1.375
11. I like to observe my classmates' verbal and non-verbal behaviour.	4.9	1.136	4.27	1.272
12. I don't like it when people behave inappropriately with others due to their racial, religious, cultural, etc. differences.	5.27	1.555	5.72	0.467

Based on the findings presented in Table 1, it is evident that both groups of students share a keen interest in exploring diverse cultures. This mutual interest is further reflected in their responses to the second

statement of the questionnaire, suggesting a lack of significant challenges for students when it comes to traveling or residing abroad. Moreover, despite the infrequent presence of international students in the Ukrainian university (refer to students' interview), students there exhibit a noteworthy readiness to engage with individuals from varied linguistic and cultural backgrounds. The responses to the fourth statement reveal a consensus among students from both groups regarding their inclination towards tolerance of other cultures and values. Likewise, statements 5, 7, 8, 9, and 11 exhibit closely aligned mean and standard deviation values across both groups of MA students. This underscores a parallel perspective on interacting with peers (7 and 11), possessing cultural proficiency (8), undertaking English language acquisition (9), and navigating specific situational emotions (5). While there is a slight discrepancy in standard deviation values for statements 6, 10, and 12 between UCM and PNU students' responses, it is worth noting that, as per the two-tailed U test, these distinctions do not hold statistical significance.

In summary, based on the results of the Mann-Whitney U test, it is evident that U_1 , which falls outside the critical region for both mean and standard deviation values, does not provide sufficient evidence to reject the null hypothesis ($A = B$). Therefore, all the findings are statistically insignificant at the 0.05 significance level. This implies that the reflections of students from both Universidad Complutense de Madrid and Vasyl Stefanyk Precarpathian National University are remarkably similar, contrary to the initial expectations.

Students' interview results

In this section, we will analyze the responses gathered from interviews conducted with two distinct groups of students using content analysis. Specifically, we interviewed MA students who willingly participated in these interviews. The objective was to delve into their attitudes regarding intercultural competence by eliciting their responses to the following questions: 1) *How can you define being interculturally competent?*; 2) *What do you think is the role of culture in language learning?*; 3) *How many international students have studied in your group? Would you like to be a part of international classroom? Explain*; 4) *During your studies, have you been encouraged to study about different cultures? Describe your experience*; 5) *In your opinion, is communication an important part of intercultural competence? Explain*. Consequently, we will discuss their perspectives on

various aspects, including cultural studies and language acquisition, communication, and intercultural competence.

The first question aims at analyzing how students perceive themselves as interculturally competent. It is crucial to ascertain the fundamental understanding of intercultural competence (IC) among respondents in order to comprehend how they conceptualize it. As stated by some researchers, "learning to communicate in a foreign language will often encompass learning about the cultural norms and habits (e.g., food, weather) of the foreign language being studied,"³⁴ particularly for EMI and CLIL students. Consequently, in our interviews, all students were asked to mention at least one of the key elements associated with IC³⁵. These elements are integral to successful communication and cultural awareness, and they include:

- (1) SPS2. *Being able to interact successfully with people who belong to different cultures.*
- (2) SPS4. *As having the necessary knowledge and abilities to communicate effectively with people from other cultures.*
- (3) UKR4. *Being acquainted with the culture of different countries.*
- (4) UKR10. *The capacity to adapt myself in any intercultural situation.*

The respondents acknowledge possessing various abilities associated with intercultural competence (IC). They affirm the capacity *to be tolerant, to support, to be competent, to manage communication, to adapt themselves, and possess knowledge, being familiar with peculiarities of other countries or nations, to be interested in other cultures*. Given that all these students are enrolled in English Philology/Linguistics programs and are participating in English-medium instruction courses, it can be inferred that certain facets of IC are inherently integrated into their foreign language learning process. This observation substantiates Byram's assertion³⁶ regarding the significance of

³⁴ M. Byram, (2014), Twenty-five years on: From cultural studies to intercultural citizenship. *Language, Culture and Curriculum*, 27, 209-225; Byram, Gribkova, & Starkey, 2002, as cited in M. Aguilar, (2008). Dealing with Intercultural Communicative Competence in the Foreign Language Classroom. In: Soler, E.A., Jordà, M.S. (eds) *Intercultural Language Use and Language Learning*. Springer, Dordrecht, p. 31.

³⁵ See D.K. Deardorff, (2006), Assessing Intercultural Competence in Study Abroad Students. In Byram, M. and Feng, A. (Eds.) 2006. *Living and Studying Abroad. Research and Practice*, (pp. 232-256). Clevedon: Multilingual Matters.

³⁶ Byram, 1997, as cited in D.K. Deardorff, J. Heyl, & H. Wit, de. (2012). *The sage handbook of international higher education*. SAGE Publications, p. 5.

intercultural competence as a crucial educational objective, particularly in the context of foreign language teaching.

It is notable that, despite the overall comprehension of the concept of “being interculturally competent,” some students still tend to associate culture primarily with countries and nations. However, it’s crucial to acknowledge that the concept of culture, and by extension, intercultural competence, is far more intricate and multifaceted³⁷. This observation underscores the need for further clarification and heightened awareness among students regarding the nuances of intercultural competence. It is evident that both universities would benefit from providing additional education and guidance in this regard to ensure a more comprehensive understanding of the subject matter.

The question concerning *the role of culture in language learning* revealed an unanimous acknowledgment of the interconnectedness and substantial significance of culture in the realm of language studies among all participants. This aligns with Douglas Brown's assertion that “culture is really an integral part of the interaction between language and thought. Cultural patterns, customs, and ways of life are expressed in language; culture-specific world views are reflected in language.”³⁸ Furthermore, the participants recognized language not only as a tool for communication but also as a representative cultural component. For instance:

(5) SPS5. *The language is part of the culture. To learn one, you need to know at least the basic about the other.*

(6) UKR4. *If language education will be to successfully incorporate the presentation of cultural information in language classroom, it would greatly increase the benefits of language study.*

The presence of international students in the classroom can bring both challenges and advantages, benefiting not only newcomers but also all participants of the educational process. The third question posed to the

³⁷ G. Hofstede, (2001), *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations Across Nations*, 2nd ed. Sage, Thousand Oaks, CA; C. Kluckhohn, (1951) *Values and Value-Orientations in the Theory of Action: An Exploration in Definition and Classification*. In: Parsons, T. and Shils, E., Eds., *Toward a General Theory of Action*, Harvard University Press, Cambridge, 388-433; Kroeber, A., and T. Parsons. (1958). *The concept of culture and of social system*. *American Sociological Review* 23: 582-583.

³⁸ Brown, 1980, as cited in G. Boylan, & S. Huntley, (2003). *Foreign language learning and cultural awareness*. *El Guiniguada*, 12, 37-44, p. 39.

participants (*How many international students have studied in your group? Would you like to be a part of international classroom?*) revealed a notable disparity in the responses. Specifically, four students from PNU noted the absence of international students in their groups but expressed a desire to be part of an international classroom. In contrast, students from UCM reported the presence of approximately 10 international students in their Master's course. This discrepancy in experiences highlights the varying internationalization levels between the two universities. Nevertheless, students from both universities who provided detailed responses to the second sub-question emphasized the advantages of studying alongside foreign students. They highlighted the opportunities for cultural exploration, language skill improvement, and broadening of their worldviews. Interacting with host students in an internationalized higher education classroom can indeed be highly beneficial, as pointed out by Crose³⁹. The university that facilitates such a scenario plays a significant role in fostering cultural understanding and the establishment of cross-border relationships through the internationalization of both the classroom and the broader university community, as stated by Crose⁴⁰.

The data obtained from the responses to the fourth question indicates that all students *had been encouraged to study about different cultures* or had taken courses related to intercultural studies to some extent:

(7) SPS4. *Yes. It wasn't hard because it was all culture close to mine: all East-European culture. It would have been more difficult I think, if it was an Asian culture for example. I could integrate myself really easily.*

(8) UKR1. *I have been encouraged to study about different cultures. I even had a class called ICC. I learned a lot about other cultures and the way I should behave with them.*

One student (SPS2) noted attending college with a tricultural orientation, which suggests a comprehensive approach to cultural education. Additionally, three students (SPS3, SPS4, UKR4) expressed their personal enthusiasm for studying various cultures, indicating a proactive interest in cultural diversity. However, it is worth mentioning that one student from UCM mentioned the insufficient encouragement of multicultural studies, suggesting that there may be room for improvement in promoting multicultural education in that particular context.

³⁹ B. Crose, (2011), Internationalization of the Higher Education Classroom: Strategies to Facilitate Intercultural Learning and Academic Success. *International Journal of Teaching and Learning in Higher Education*, 23(3), 388-395, p. 389.

⁴⁰ Ibid., p. 388.

The responses provided in the interviews contribute to our understanding of the students' overall familiarity and awareness of intercultural education. Interestingly, the results suggest that these aspects are nearly equivalent for participants from both universities.

The final section of the interviews delved into the significance of communication in intercultural competence. The responses from all interviewees consistently affirm that *communication is an essential part of IC*. Students expressed the following views:

(9) UKR1. *Communication is an essential part of ICC. Those notions are interrelated and connected with each other. In my opinion, one cannot gain knowledge in the field of ICC without communication. It is extremely important to talk to other people, exchange thoughts and of course listen others.*

(10) SPS1. *Yes, because you must know how to interact with people from different cultures.*

(11) SPS3. *Yes, of course. I would say it is the base of it, since it allows to actually show if someone is interculturally competent through words.*

(12) SPS4. *Yes of course. Without communication it's almost impossible to learn any culture. We all need to interact with each other to understand the opinion and the way the others are thinking. Moreover, they are some little things we can't learn on tv or find in the books or internet, we have to learn it with the people, so a direct communication is a need.*

(13) UKR4. *Yes, in order to express your opinion.*

As mentioned in previous sections, the majority of scholars in the field of intercultural competence, including Deardorff⁴¹, Knapp and Knapp-Potthoff⁴², Matsumoto and Juan⁴³, Triandis⁴⁴, and others, consistently emphasize the critical role of communication skills in achieving successful intercultural interaction. In fact, some scholars even equate the concepts of international competence and international communicative competence. It's evident that the participants also underscore the importance of

⁴¹ D.K. Deardorff, (2006), Assessing Intercultural Competence in Study Abroad Students. In M. Byram, and A. Feng, (Eds.) 2006. *Living and Studying Abroad. Research and Practice*, (pp. 232-256). Clevedon: Multilingual Matters.

⁴² K. Knapp, & A. Knapp-Potthoff, (1990). Interkulturelle Kommunikation. [Intercultural communication]. *Zeitschrift fur Fremdsprachen forschung*, 1, 62-93.

⁴³ D. R. Matsumoto, & L. Juang, (2003). *Culture and psychology: People around the world*. Thomson Wadsworth.

⁴⁴ H. C. Triandis, (2003): Forty-five years of researching the culture and behaviour link: An intellectual autobiography. In Tjosvold, D., & Leung, K. (Eds). *Cross-cultural management: Foundations and future* (pp. 11-27). Routledge, Taylor & Francis Group.

communication within intercultural competence, effectively associating intercultural competence with linguistic skills, as noted by Gierke et al.⁴⁵. Moreover, this connection between communication and intercultural competence may be a notable outcome of studying a foreign language and its content through EMI or CLIL approaches.

In summary, in the context of foreign language learning, it can be concluded that both groups of students, hailing from Spanish and Ukrainian universities, possess a general understanding of intercultural competence (IC) and recognize its significance, particularly in the realm of communication. As pointed out by Aguilar⁴⁶, intercultural competence is considered one of the common outcomes in immersion and CLIL educational settings, as the integration of culture in language learning has been a recurring theme in literature on these approaches. The responses provided by students indicate that international competence is indeed cultivated within their foreign language studies, and it stands as a key element of learning within their internationalized university environments. However, the students' answers and the subsequent analysis reveal certain shortcomings in language programs or the universities themselves, where there may be a lack of adequate emphasis on IC education. These deficiencies will be further elaborated upon in the concluding remarks.

Discussion

This section presents the conclusions drawn from the results of the conducted study and suggests potential avenues for future research in the field of intercultural competence (IC) in tertiary education. The choice of Universidad Complutense de Madrid and Vasyl Stefanyk Precarpathian National University for this study was not arbitrary; it was based on the authors' familiarity with their educational systems, which allowed for a more precise analysis. Consequently, the study reviewed intercultural theories to provide a solid theoretical foundation. Subsequently, both quantitative and qualitative data were collected and analyzed from students' surveys and interviews. The primary objective of this analysis was to investigate the impact of English-Medium Instruction (EMI) and

⁴⁵ L. Gierke, N. Binder, M. Heckmann, Ö. Odağ, A. Leiser, & camp; K. K. Kedzior, (2018). Definition of intercultural competence (IC) in undergraduate students at a private University in the USA: A mixed-methods study. *PLOS ONE*, 13(4).

⁴⁶ M. Aguilar, Integrating intercultural competence in ESP and EMI: From theory to practice. *ESP Today*, 6(1), 2018, 25–43.

Content and Language Integrated Learning (CLIL) programs on students' development of intercultural competence within tertiary education settings in Ukraine and Spain correspondingly. Specifically, it sought to compare two institutions offering EMI or CLIL courses, with a focus on the role of foreign language studies in students' IC development. Here, the research has been conducted within the context of specific universities and language programs. However, future research could expand on these findings and explore the broader implications for IC development in tertiary education. This could involve investigating the effectiveness of various pedagogical approaches, curricular designs, or intercultural training programs across different universities and settings. Furthermore, exploring the impact of IC on students' academic and career success could be another valuable area of research in this field.

The analysis of the questionnaire data reveals several noteworthy findings:

1. *Interest in Discovering Different Cultures*: MA students from both Universidad Complutense de Madrid (UCM) and Vasyl Stefanyk Precarpathian National University (PNU) share a common interest in exploring different cultures.

2. *Tolerance in Intercultural Communication*: Students from both UCM and PNU exhibit tolerance and open-mindedness when communicating with individuals from diverse cultural backgrounds.

3. *Similar Views on Intercultural Competence (IC)*: Participants from both Spanish and Ukrainian universities hold similar views regarding the importance of IC, English language learning, and their attitudes toward specific situations.

4. *Challenges in Intercultural Interaction for PNU Students*: PNU students occasionally encounter difficulties when interacting with people from other cultures. This difference may be attributed to the fact that PNU students might have fewer opportunities for intercultural exposure compared to their UCM counterparts.

These findings provide valuable insights into the perspectives and experiences of MA students in both universities regarding intercultural competence and communication. They also suggest areas where educational programs or support services could be enhanced to further promote intercultural competence among students, particularly at PNU, where students may face more challenges in this regard.

The data gathered from the interviews provide substantial support for several key findings:

1. *Understanding of Intercultural Competence (IC)*: MA students from both Universidad Complutense de Madrid (UCM) and Vasyl Stefanyk Precarpathian National University (PNU) demonstrate a clear understanding of the concept of IC. They are aware of the elements comprising IC and recognize the pivotal role of communication in achieving successful intercultural interaction.

2. *Benefits of International Classmates*: Students from both UCM and PNU concur on the advantages of having international students as their classmates. However, students from PNU highlight the limited presence of foreign students in their educational environment.

3. *Opportunities for Studying Different Cultures*: MA students at both universities have opportunities to explore various cultures, not only through interaction with individuals from diverse backgrounds but also by attending classes that focus on intercultural studies.

These findings underscore the shared understanding and experiences of MA students from both universities concerning intercultural competence. The presence of international students is viewed as valuable, although there is a notable difference in their numbers between the two institutions. Additionally, the provision of courses related to intercultural studies contributes to the students' exposure to and understanding of different cultures.

The results show that interviewees participated in courses that covered topics related to culture and civilizations, including Linguoculturology classes, among others. This involvement in educational activities centered around intercultural content underscores the significance of cultural knowledge in the development of intercultural competence, as noted by Gierke⁴⁷. As emphasized by Jones⁴⁸, the internationalization of curriculum, achieved by incorporating intercultural content in domestic settings, empowers students to acquire new knowledge and critically engage with global issues. This approach not only broadens their understanding of the world but also cultivates a thoughtful and discerning perspective on global matters.

⁴⁷ L. Gierke, N. Binder, M. Heckmann, Ö. Odağ, A. Leiser, & camp; K.K. Kedzior, (2018). Definition of intercultural competence (IC) in undergraduate students at a private University in the USA: A mixed-methods study. *PLOS ONE*, 13(4).

⁴⁸ Jones, 2010, as cited in *ibid.*, p. 10.

Implications

The implications drawn from this study extend beyond the specific context of Universidad Complutense de Madrid and Vasyl Stefanyk Precarpathian National University. They offer valuable insights and recommendations that can inform the broader field of intercultural competence (IC) in tertiary education and research. These implications encompass both the findings and the limitations of the study. Universities globally can enrich their curriculum by integrating intercultural content and activities, fostering the development of students' intercultural competence. Strategies to increase the presence of international students, particularly in Vasyl Stefanyk Precarpathian National University (PNU), can offer local students more opportunities for intercultural interactions, aligning with their desire for diverse classmates. Researchers conducting online interviews should be cognizant of potential limitations, such as the Hawthorne effect, and explore strategies to elicit more in-depth responses, thereby enhancing data quality in online settings. Future studies employing content analysis should consider structured interview formats with follow-up questions to encourage participants to provide more detailed responses, especially when dealing with brief or incomplete answers. Given the small sample size, caution is warranted when generalizing findings to a larger population. Future research should prioritize larger and more diverse participant groups for increased robustness and generalizability. Universities should consider early internationalization of their curriculum, incorporating intercultural content to facilitate students' acquisition of new knowledge and encourage critical reflection on global issues, fostering a broader understanding of the world. These implications provide valuable guidance for future research and educational practices in promoting intercultural competence among students in tertiary education settings. Researchers and educators can leverage these insights to design more effective intercultural programs and initiatives, address limitations in data collection, and continue exploring the complexities of intercultural competence development on a global scale.

Conclusions

The analysis of the questionnaire and interviews data show that MA students at both programmes share a common interest in exploring different cultures; exhibit tolerance and open-mindedness when communicating with individuals from diverse cultural backgrounds; hold

similar views regarding the importance of IC; demonstrate a clear understanding of the concept of IC and its elements; recognize the pivotal role of communication in achieving successful intercultural interaction; concur on the advantages of having international students as their classmates; and have opportunities to explore various cultures, not only through interaction with individuals from diverse backgrounds but also by attending classes that focus on intercultural studies. Nevertheless, MA students from PNU (Ukraine) highlight the limited presence of foreign students in their educational environment and occasionally encounter difficulties when interacting with people from other cultures as they have fewer opportunities for intercultural exposure compared to their UCM (Spain) counterparts.

These findings provide valuable insights into the perspectives and experiences of MA students in both universities regarding intercultural competence and communication. They also suggest areas where educational programs or support services could be enhanced to further promote IC among students, particularly at PNU, where students may face more challenges in this regard. The findings underscore the shared understanding and experiences of MA students from both universities concerning IC. The presence of international students is viewed as valuable, although there is a notable difference in their numbers between the two institutions. The results demonstrate that CLIL programme does not predetermine higher levels of IC development. The provision of courses and educational activities related to intercultural studies, as well as internationalization of curriculum contribute to the students' exposure to and understanding of different cultures even in EMI settings. For instance, the courses that covered topics related to culture and civilizations, including Linguoculturology classes, among others motivate EMI students to acquire new knowledge, enable to critically engage with global issues, broaden their understanding of the world and model a thoughtful perspective on global matters.

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REFERENCES:

Aguilar, M., (2008), Dealing with Intercultural Communicative Competence in the Foreign Language Classroom. In: Soler, E.A., Jordà, M.S. (eds) *Intercultural Language Use and Language Learning*. Springer, Dordrecht. https://doi.org/10.1007/978-1-4020-5639-0_4

Aguilar, M., (2018), Integrating intercultural competence in ESP and EMI: From theory to practice. *ESP Today*, 6(1), 25–43.
<https://doi.org/10.18485/esptoday.2018.6.1.2>

Arnó-Macià, E., & Aguilar, M. (2018). ESP, EMI AND interculturality: How internationalised are university curricula in Catalonia? *ESP Today*, 6(2), 184–207. <https://doi.org/10.18485/esptoday.2018.6.2.3>

Bennett, M.J., (2004), Becoming interculturally competent. In J.S. Wurzel (Ed.) *Toward multiculturalism: A reader in multicultural education*. Newton, MA: Intercultural Resource Corporation.

https://www.idrinstitute.org/wp-content/uploads/2018/02/becoming_ic_competent.pdf

Boylan, G., & Huntley, S., (2003), Foreign language learning and cultural awareness. *El Guiniguada*, 12, 37-44.

https://accedacris.ulpgc.es/bitstream/10553/5476/1/0235347_02003_0003.pdf

Byram M., Zarate G., (1991), *Investigating Cultural Studies in Foreign Language Teaching*. Clevedon, Philadelphia, cop.

Byram, M., (1997), Teaching and assessing intercultural communicative competence. Clevedon: Multilingual Matters Ltd.

Byram, M., (2014), Twenty-five years on: From cultural studies to intercultural citizenship. *Language, Culture and Curriculum*, 27, 209–225.

Byram, P.M., Nichols, A., & Stevens, D. D. (Eds.), (2001), *Developing intercultural competence in practice*. ProQuest Ebook Central. <https://ebookcentral.proquest.com/lib/universidadcomplutense-ebooks/reader.action?docID=1685902>

Chen, G.M. & Starosta, W.J., (2000), The development and validation of the intercultural sensitivity scale. *Human Communication*, 3, 1–15. https://digitalcommons.uri.edu/com_facpubs

Condon, J.C., & Yousef, F.S., (1975), *An introduction to intercultural communication*. Bobbs-Merill.

Coyle, D., (1999), Supporting students in content and language integrated contexts: Planning for effective classrooms. In J. Mash (Ed.), *Learning through a foreign language – Models, methods and outcomes* (pp.46-62). Lancaster: CILT.

Coyle, D., (2006), Developing CLIL: towards a theory of practice. In Monographs, 6. *CLIL in Catalonia, from theory to practice*, pp. 5-29. Barcelona: APAC.

Coyle, D., (2007), The CLIL quality challenge. In D. Marsh, & D. Wolff (Eds.), *Diverse contexts - Converging goals: CLIL in Europe* (Mehrsprachigkeit in Schule Und Unterricht; Vol. 6). Frankfurt: Peter Lang Pub.

Coyle, D., (2009), Promoting Cultural Diversity through Intercultural Understanding: A Case Study of CLIL Teacher Professional Development at In-service and Pre-service Levels. In M. L. Carrió-Pastor (Ed.), *Content and Language Integrated Learning: Cultural Diversity* (Vol. 92, pp. 105-124). (Linguistic Insights; Vol. 92). Peter Lang.

Coyle, D., Hood, P., & Marsh, D., (2010), *CLIL: Content and language integrated learning*. Cambridge, UK: Cambridge University Press. DOI: 10.1017/9781009024549

Croese, B., (2011), Internationalization of the Higher Education Classroom: Strategies to Facilitate Intercultural Learning and Academic Success. *International Journal of Teaching and Learning in Higher Education*, 23(3), 388-395. <http://www.isetl.org/ijtlhe/>

Dalton-Puffer, C., Nikula, T., & Smit, U., (2010), *Language use and language learning in CLIL classrooms*. John Benjamins Publishing Company.

Deardorff, D.K., (2006), Assessing Intercultural Competence in Study Abroad Students. In Byram, M. and Feng, A. (Eds.) 2006. *Living and Studying Abroad. Research and Practice*, (pp. 232-256). Clevedon: Multilingual Matters.

Deardorff, D.K., Heyl, J., & Wit, H. de. (2012), *The sage handbook of international higher education*. SAGE Publications.

Garrett-Rucks, P., (2016), *Intercultural competence in instructed language learning: Bridging theory and practice*. Information Age Publishing, Inc.

Gierke, L., Binder, N., Heckmann, M., Odağ, Ö., Leiser, A., & camp; Kedzior, K.K., (2018), Definition of intercultural competence (IC) in undergraduate students at a private University in the USA: A mixed-methods study. *PLOS ONE*, 13(4).

<https://doi.org/10.1371/journal.pone.0196531>

Gudykunst W., (1997), *Communication with strangers: An approach to intercultural communication*. Boston: McGrawHill.

Gudykunst, W.B., & Kim, Y.Y., (1984), *Communication with strangers: An approach to intercultural communication*. New York: Random House.

Guo, Y., (2017), The concept and development of intercultural competence. In Tsai, Y., & Houghton, S. (Ed.), *Becoming intercultural: Inside and outside the classroom* (pp. 23-47). Cambridge Scholars Publishing.

Hall, E., (1959), *The silent language*. New York: Doubleday & Company, Inc.

Hansen-Pauly, M., Bentner, G., Llinares, A., Morton, T., Dafouz, E., Favilli, F., Novotna, J., et al. (2009), *Teacher education for CLIL across contexts*. Brussels, Belgium: European Commission, Directorate General for Education and Culture. Retrieved from <http://clil.uni.lu>

Hofstede, G., (2001), *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations Across Nations*, 2nd ed. Sage, Thousand Oaks, CA. [https://doi.org/10.1016/S0005-7967\(02\)00184-5](https://doi.org/10.1016/S0005-7967(02)00184-5)

Jenkins, J., (2018), English medium instruction in higher education: The role of English as lingua franca. *Springer International Handbooks of Education*, 1-18. https://doi.org/10.1007/978-3-319-58542-0_7-1

Gluckhohn, C., (1951), Values and Value-Orientations in the Theory of Action: An Exploration in Definition and Classification. In: Parsons, T. and Shils, E., Eds., *Toward a General Theory of Action*, Harvard University Press, Cambridge, 388-433.

<http://dx.doi.org/10.4159/harvard.9780674863507.c8>

Knapp, K., & Knapp-Potthoff, A., (1990), Interkulturelle Kommunikation. [Intercultural communication]. *Zeitschrift für Fremdsprachen forschung*, 1, 62-93. https://doi.org/10.1007/978-3-531-91113-7_5

Kroeber, A., and T. Parsons, (1958), *The concept of culture and of social system*. *American Sociological Review* 23: 582-583.

Maíz-Arévalo, C., & Orduna-Nocito, E., (2021), Developing intercultural Communicative Competence: A cornerstone in EMI in-service training programmes in higher education. *Revista Alicantina De Estudios Ingleses*, (34), 159. <https://doi.org/10.14198/raei.2021.34.01>

Matsumoto, D. R., & Juang, L., (2003), *Culture and psychology: People around the world*. Thomson Wadsworth.

Méndez García, M. del. (2012), The potential of CLIL for intercultural development: A case study of Andalusian bilingual schools. *Language and Intercultural Communication*, 12(3), 196-213.

<https://doi.org/10.1080/14708477.2012.667417>

Rubenfeld, S., Clement, R., Vinograd, J., Lussier, D., Amireault Valérie, Auger Réjean, & Lebrun, M., (2007), Becoming a cultural intermediary. *Journal of Language and Social Psychology*, 26(2), 182-203. <https://doi.org/10.1177%2F0261927X07300080>

Samovar, L. A., & Porter, R. E., (1994), *Intercultural communication a reader*. Wadsworth Publishing Company.

Smith, M. B., (1966), Explorations in competence: A study of Peace Corps teachers in Ghana. *American Psychologist*, 21(6), 555-566. <https://doi.apa.org/doi/10.1037/h0023607>

Strotmann, B., Bamond, V., López Lago, J. M., Bailen, M., Bonilla, S., & Montesinos, F., (2014), Improving bilingual higher education: Training university professors in content and language integrated learning. *Higher Learning Research Communications*, 4(1), 91-97. <https://doi.org/10.18870/hlrc.v4i1.198>

TAEC EMI Handbook (2019), TAEC Erasmus+ project (2017-2020). https://cip.ku.dk/english/projects-and-collaborations/taec/TAEC_Handbook_FEB_2020_NoEdit.pdf

Triandis, H.C., (2003): Forty-five years of researching the culture and behaviour link: An intellectual autobiography. In Tjosvold, D., & Leung, K. (Eds). *Cross-cultural management: Foundations and future* (pp. 11-27). Routledge, Taylor & Francis Group.

HISTORICAL OVERVIEW OF ENGLISH VETERINARY TERMINOLOGY FORMATION

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Abstract: *This article provides a comprehensive historical overview of the formation and evolution of English veterinary terminology. Beginning with the ancient roots of veterinary medicine and the influence of Latin and Greek languages, the narrative traces the development of veterinary terminology through various historical periods, including the Middle Ages, the Renaissance, and the Enlightenment. The article highlights key milestones and influences that shaped the vocabulary of veterinary medicine, such as advancements in anatomical understanding, the establishment of veterinary schools, and the emergence of standardized scientific nomenclature. Furthermore, the article explores the impact of cultural, linguistic, and technological factors on the enrichment and refinement of English veterinary terminology over time. By illuminating the historical context of veterinary language, this article offers valuable insights into the linguistic heritage and evolution of veterinary medicine, contributing to a deeper understanding of its contemporary terminology and practices.*

Keywords: *veterinary terminology, milestones, evolution, veterinary medicine, development, historical context.*

Introduction

Globalization and internationalization processes taking place in the world contribute to the rapid accumulation of scientific information throughout the world, as a result of which there is a rapid increase in the number of terms in various fields, including in the field of veterinary medicine. Any science is expressed by a system of terms, and the life of a term is the history of science. Thus, studying the history of science means studying the history of terms. The veterinary terminology of the modern English language was formed over many centuries and developed together with the science of animal husbandry, confirming the similarity of the evolutionary processes of both general and terminological vocabulary. The relevance of our research is due to the fact that the history of the formation, main stages and principles of creation of English-

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language veterinary terms is insufficiently studied from a linguistic point of view.

It is obvious that the long stay in the shadow of other sciences led to the fact that the language of veterinary medicine did not fall into the sphere of interests of linguists. Indeed, veterinary medicine is in many ways a medical science. Humane and veterinary medicine, from the moment of the birth of the medical business, first developed together, but gradually veterinary medicine became an independent field. However, the connection between the two industries is still present. One of the aspects of this connection is the protection of humanity from diseases that can be transmitted from animals – zoonoses. Today, veterinary medicine is a branch of human knowledge and activity, which is rapidly developing and covers wide sections of society.

The aim of our work is to outline the main stages of the formation of English-language terminology in veterinary medicine, considering its history of development from inception to the current state of its terminological system.

Research materials and methods

English-language lexicographic sources and Internet materials on veterinary medicine served as the source base of the work. During the analysis, we relied on lexicographic and descriptive research methods.

Literature Review

In the Ukrainian scientific space, trends of formation of clinical veterinary terminology was studied by M. Lychuk¹. The study of O. Syrotina, Yu. Rozhkov was devoted to the genesis of veterinary medicine terminology². In the scientific studies of T. Nemova and M. Lychuk, the peculiarities of the formation of clinical veterinary terminology, the structural organization of its terms were considered^{3,4}. Origin sources of

¹ M. Lychuk, *Trends of formation of clinical veterinary terminology. Linguistic ecology: the language of medicine*. Materials of the AllUkrainian scientific-practical conference with international participation. February 22 - 23, 2023, Ukraine, Lviv, 2023, P. 103-108

² O. Syrotina, Yu. Rozhkov, *Genesis of veterinary medicine terminology (based on English and ukrainian languages)*, Materials of the AllUkrainian scientific-practical conference with international participation. February 22 - 23, 2023, Ukraine, Lviv, 2023. P.119-126.

³ T.V. Nemova, & M.I. Lychuk, *Clinical Veterinary Terminology: Specificities of Formation and Translation Difficulties*. International journal of philology, 13(2). 2022. P. 5-14.

English veterinary terminology and development trends of the English clinical veterinary terminology system were the subject of research by O. Syrotina^{5,6}.

Many studies show that English-language veterinary terminology is dominant in the modern world. As noted by Yu. Rozhkov, approximately 75% of all information on veterinary medicine in the world is published in English⁷.

However, research by linguists devoted to certain aspects of terminology in the context of veterinary medicine in the English language does not provide an opportunity to draw up a complete picture of how veterinary terms are formed with the development of veterinary science. The study of the general trends in the development of the studied terminology in the English language and the peculiarities of its formation is important from both a theoretical and a practical point of view.

Today, veterinary medicine is a branch of human knowledge and activity that supports the health of animals, carries out the prevention of their diseases, fights against diseases common to humans and animals, guarantees the safety of food products of animal origin, and prevents infectious animal diseases from entering the country. Veterinary medicine as a science of animals has the following main fields: animal hygiene, feeding and breeding of farm animals, ethology, veterinary and sanitary examination of food products, etc. The terminology of veterinary medicine is a set of names denoting the concept of veterinary medicine as a science, and special nomenclature names of veterinary medicine as a field of professional activity. The modern terminology of veterinary medicine is one of the broadest and most complex in terms of conceptual and substantive terminological systems. The lexicon of veterinary medicine consists of several hundred thousand words and phrases. The huge volume of modern veterinary terminology is explained by the variety of categories of scientific concepts reflected in it. Veterinary terminology is

⁴ T.V., Nemova, M.I. Lychuk, *Features of formation and translation of terminology of clinical veterinary hematology*. International journal of philology, 2020, 11 (3), 73-81.

⁵ O. Syrotina, *Origin sources of English veterinary terminology*. Euromentor. Vol. 14. Issue 1. 2023, p. 117-135.

⁶ O. Syrotina, *Development trends of the English clinical veterinary terminology system*. Euromentor Journal, Vol. 14. Issue 2, 2023. P. 115-123

⁷ Yu. H. Rozhkov, *Verbalization of Animal Diseases in English: Linguocognitive and Structural-Semantic Aspects*. Dissertation for a Doctor of Philosophy in Philology degree: specialty - 035 Philology. Borys Grinchenko Kyiv University, Kyiv, 2021, p. 203.

extremely diverse and can be classified into different types according to different characteristics. Depending on the field of application, veterinary terms are divided into terms of veterinary science and terms of veterinary practice. The terminology of veterinary science is the terms used in veterinary scientific works. The sphere of its existence and fixation is scientific and educational veterinary literature. It is worth noting that almost any term used in the field of veterinary practice is included in the scientific veterinary vocabulary, while not every doctrinal term is reflected in certain veterinary documents. Depending on the prevalence of use in the language, all terms used in veterinary science and practice can be divided into three groups: commonly used (general scientific), basic (fields of medicine and biology), own (highly specialized) terms. According to its etymological composition, the term system of the English language of veterinary medicine is represented by: 1) borrowings from classical languages; 2) lexemes of the native language; 3) terms borrowed from European languages.

Veterinary medicine is a science dealing with the prevention, diagnosis and treatment of animals. The name "veterinary medicine" used quite often today is a pleonasm, because veterinary medicine in translation means treatment of livestock. According to Lenglet's explanation, the word "veterinary" originates from the Celtic "vee" (hence the German "vieh") – livestock, "teeren" (hence the German "zehren") – to be ill, and "aerts" or "arts" (German "frtzt") – physician. According to this version, the Romans borrowed this term from Celtic druids, basing it on the words "veterinaria", "veterinarius", which literally translates to "one who cares for livestock", "one who treats livestock", or "one who attends to livestock". At the same time, the Romans used the words "mulomedicina", "mulomedicus" (literally – "mule doctor"). The term "veterinary" first appears in the treatise "On Agriculture" by the famous Roman agronomist Columelli. The treatise was written in the 1st century BC, and the sixth and seventh books of this treatise are dedicated to animal husbandry and veterinary medicine.

Veterinary medicine has gone through a long stage of formation and development from knowledge of the world, accumulation of experience and knowledge to their analysis, systematization, creation of scientific schools and practical achievements.

The evolution of English veterinary terminology reflects the intersection of various linguistic, scientific, and cultural influences over centuries. From its origins rooted in the husbandry practices of early

agrarian societies to the sophisticated medical discipline it is today, the journey of veterinary terminology is rich and complex.

The foundations of veterinary medicine trace back to ancient civilizations such as Mesopotamia, Egypt, Greece, and Rome, where rudimentary animal healing practices emerged alongside human medicine. However, formalized veterinary terminology as we understand it today began to take shape much later.

The main criteria by which the time limits of the formation of the terminological system can be defined are the scientific level of theoretical research and the state of veterinary practice. Proceeding from such grounds and taking into account modern realities, in our opinion, it is appropriate to single out three periods of formation and development of the terminology system of veterinary medicine: the first – Ancient – from the most ancient times to the fall of the Western Roman Empire (476 AD), the second – Medieval – from the period of the Western Roman Empire to the Renaissance (476-1500 AD) and the third – the period of modern times – from 1500 AD. e. before the establishment of veterinary institutions and from the time of establishment of veterinary institutions to the present⁸.

The Ancient period is characterized by the formation of basic concepts and terms used in veterinary practices, primarily based on observation and experience. Knowledge in veterinary medicine was mainly transmitted through oral tradition, passed down from older generations to younger ones without systematization or standardization. The earliest veterinary lexicon, which has retained its semantics, consists mainly of terms related to the management and treatment of working animals, such as "stable" or "equine hospital," "instrument," and "amputation." The terminology of this period reflected the primitiveness and limitations of the knowledge and methods of that time, but it laid the foundation for the further development of veterinary medicine. Therefore, the terminology of the veterinary field during this period was largely of an economic and domestic nature, formed based on colloquial language and Latin, the vocabulary of which formed the primary basis of the scientific language.

⁸ S.D. Jones, & P.A. Koolmees, *A Concise History of Veterinary Medicine. New Approaches to the History of Science and Medicine*. Cambridge University Press. 2022, 318 p.

The second – the Medieval period – is characterized by the beginning of the development of scientific medicine in Ancient Greece, where relevant schools functioned. Therefore, a rather significant layer of veterinary vocabulary is made up of Greek words. Most terms of Greek origin are used to denote various organs, diseases and clinical examination of animals (Gastritis – gastritis, Otitis – otitis, Cystitis – cystitis, Mastitis – mastitis). Over time, the Latin language began to supplant Greek as the basis of professional medical and veterinary language. Some of the Greek terms have survived, some have undergone structural modifications, some have fallen into archaisms. Terms of Latin origin occur in the anatomy and physiology of animals: Caninus - canine, Nervus - nerve, Corpus - body, Vena - vein, Musculus - muscle.

During the Medieval period, veterinary knowledge was largely transmitted orally and through apprenticeships within agrarian communities. Latin, as the language of scholarship and the Church, exerted significant influence on early veterinary terminology. Terms like "equus" for horse and "bovis" for cattle have Latin origins that persist in modern veterinary discourse.

The beginning of the terminology of medicine and veterinary medicine was laid by Hippocrates. Hippocrates even coined the name of cancer, which is common nowadays. It was he who introduced the medical term "carcinoma", which comes from the Latin word cancer, which in translation means "cancer", "crab".

Significant contribution to the development of medical and veterinary terminology was made by Plato's disciple Aristotle, who created the first classification of animals. During the Greek and Roman epochs, veterinary medicine developed in the form of hippiatrics (the study of horse treatment). The most famous Greek hippiatrists were Apsyrtus, Pelaganus, and Hierocles. Greek hippiatrists, like physicians, were guided by the teachings of Hippocrates in their practice.

In the early 14th century, a work called "Hippiatrica" was written by L. Russius, which was published in Constantinople. It compiled works in the field of veterinary medicine, mainly from Greek veterinarians. For a long time, it served as a manual for animal treatment throughout Europe.

Therefore, the terminology of the veterinary field during this period was largely of an economic and domestic nature and was formed based on the Greek and Latin languages, the vocabulary of which formed the basis of the scientific language. Specialized vocabulary was expressed through

noun and verb forms. The introduction of new terms into the English-speaking context primarily occurred through scientific literature.

The third – the period of Modern times – is from 1500 AD. e. before the establishment of veterinary institutions and from the time of establishment of veterinary institutions to the present.

The Renaissance and Enlightenment periods marked significant advancements in veterinary science and the standardization of terminology. Pioneering figures such as Claude Bourgelat and Edward Jenner contributed to the formalization of veterinary education and terminology. Latin remained the lingua franca of academia, resulting in the proliferation of Latin-derived terms in veterinary literature.

Numerous works on veterinary medicine by Greek and Roman authors were translated in England, France and Germany. The first veterinary schools were opened in France in 1762, in Lyon, in Allierdet near Paris in 1765. Then schools were opened in other cities of various Western European countries. In 1791, the Royal Veterinary College was founded, which was destined to become the first educational institution that started training veterinary doctors in Great Britain. Since that time, we have observed the development of the science of veterinary medicine and, accordingly, the replenishment of its terminological apparatus in the English language.

General medical and veterinary terminologies began to be formed in the English language from ancient and classical works, but developed most actively during the Enlightenment. In this period, neoclassicisms (terms formed with the help of Greek and Latin roots) appear in the terminological system under study, which are used to denote animal diseases. For example, pseudocowpox (false cowpox) from the Greek. *pseudes* – fake, fake + cowpox – cowpox; pseudorabies from the Greek. *pseudes* + rabies – rabies.

The general medical and veterinary terminologies began to take shape in the English language from ancient and classical works, but they developed most actively during the Enlightenment era. During this period, neoclassical terms (terms formed using Greek and Latin roots) began to emerge in the studied terminology system, which were used to denote animal diseases. For example, "pseudocowpox" (false cowpox) from Greek "*pseudes*" meaning false + "cowpox" – cowpox; "pseudorabies" (false rabies) from Greek "*pseudes*" + "rabies" – rabies.

Latin, adopted in a certain historical period as the language of science in Western European countries, left deep traces in the formation of national languages of science. Latin remained the language of science until the middle of the 19th century. However, the situation with the dominant position of the Latin language begins to change during the Late Renaissance. The language of veterinary medicine is developing in parallel with European languages. This is connected with new discoveries that contributed to the creation of new terms and the desire of scientists to use the richness of the national language in the nomination of their discoveries. By the middle of the 19th century the Latin language finally recedes into the background, giving way to national languages.

The Industrial Revolution brought profound changes to agriculture and veterinary medicine, catalyzing the development of specialized terminology to address emerging challenges in animal husbandry and disease control. As scientific understanding deepened, terminology began to incorporate elements from Greek, French, and other languages to describe complex anatomical structures, diseases, and pharmacological interventions.

At this time, a large number of terms borrowed from modern European languages appear in veterinary terminology, among which the most common nominations are from the French language. This phenomenon is due to the fact that in the 19th century. The teaching of medicine and medical literature in Europe, in particular in France, played a significant role in the development of British and American doctors of humane and veterinary medicine.

Examples of borrowed terms from the French language include: anesthesia (from the French "anesthésie"), bandage (from the French "bandage"), diagnosis (from the French "diagnostic"), Hemorrhage (from the French "hémorragie"), osteotomy (from the French "ostéotomie"), fracture (from the French "fracture"), ligament (from the French "ligament"), prognosis (from the French "prognose"), Respiration (from the French "respiration"), symptom (from the French "symptôme"), teak (from the French "tic"), shock (from the French "shoc").

The German language also contributed to veterinary terminology. German-derived terms used to describe diseases, conditions, and procedures. For example, angina (from the German "Angina"), euthanasia (from the German "Euthanasie"), Rabies (from the German "Rabies"), parvovirus (from the German "Parvovirus"), spasm (from the German "Spasmus"), allergen (from the German "Allergen") anemia (from the

German "Anämie"), Edema (from the German "Ödema"), hernia (from the German "Hernie"), jaundice (from the German "Gelbsucht").

In the middle of the 19th century in Europe, knowledge of anatomy, physiology, and surgery greatly expanded, and new methods of research and treatment began to be applied. During this period, more systematized terms reflect scientific approaches to veterinary medicine, such as "anatomy," "physiology," "infection," "vaccination," "immunization", and "parasitology." With the advent of such sciences as microbiology, immunology, biochemistry, genetics, biotechnology, the terminological apparatus of veterinary medicine began to be increasingly replenished with words of English origin.

In the contemporary era of veterinary medicine, English serves as the primary language for communication, research, education, and practice. This dominance reflects the widespread influence of Anglophone veterinary communities across the globe. Veterinary terminology in English has evolved to encompass a vast array of specialized terms and concepts, reflecting advancements in animal health, diagnostics, treatment modalities, and research methodologies.

With the advent of advanced diagnostic tools such as ultrasound, MRI, CT scans, and molecular diagnostics, veterinary terminology has expanded to include terms specific to these technologies. For example, terms like "echocardiography," "radiography," and "PCR" (polymerase chain reaction) are commonplace.

The field of veterinary pharmacology encompasses a wide range of drugs and therapeutic agents used in the prevention, treatment, and management of animal diseases. Terms related to drug classes, dosage forms, pharmacokinetics, and pharmacodynamics are integral to veterinary practice.

Veterinary surgery involves a diverse range of procedures, from routine spaying and neutering to complex orthopedic and neurosurgical interventions. Terms such as "laparotomy," "arthroscopy," and "craniotomy" are examples of surgical terminology commonly encountered in veterinary medicine.

Given the interconnectedness between animal and human health, veterinary medicine plays a crucial role in the surveillance, prevention, and control of zoonotic diseases. Terms like "zoonosis," "epidemiology," and "One Health" represent concepts at the intersection of veterinary medicine, human medicine, and environmental health.

During this period, the terminology continues to actively develop in accordance with new scientific discoveries and technological advances, such as "genetic engineering", "genomics", "molecular diagnostics" and "biochemistry". New terms associated with specialized fields of veterinary medicine are emerging, such as "animal ethics," "exotic medicine," "wild animal rehabilitation," etc. As awareness of animal welfare and ethical issues continues to grow, veterinary terminology encompasses terms related to animal behavior, enrichment, welfare assessment, and ethical decision-making in clinical practice.

Overall, the contemporary era of veterinary medicine is characterized by a rich and dynamic lexicon that reflects the diverse facets of animal health, research, and care in an increasingly interconnected world.

Conclusion

The historical overview of English veterinary terminology formation underscores the dynamic nature of language within the veterinary profession. By understanding the historical roots and evolutionary trajectory of veterinary language, practitioners and scholars can gain deeper insights into the linguistic heritage of their field and appreciate the ongoing process of linguistic innovation and adaptation in veterinary medicine.

Despite the rich historical legacy of English veterinary terminology, its evolution is ongoing, reflecting advances in veterinary science, technology, and global interconnectedness. As new diseases emerge, diagnostic techniques evolve, and treatment modalities expand, the vocabulary of veterinary medicine continues to evolve to meet the changing needs of practitioners and researchers.

REFERENCE:

Jones, S.D., & Koolmees, P.A., (2022), *A Concise History of Veterinary Medicine. New Approaches to the History of Science and Medicine*. Cambridge University Press. 318 p.

Lychuk, M., (2023), *Trends of formation of clinical veterinary terminology. Linguistic ecology: the language of medicine*. Materials of the All Ukrainian scientific-practical conference with international participation. February 22 - 23, 2023, Ukraine, Lviv, pp. 103-108.

Nemova T., & Lychuk M., (2021), *Peculiarities of the formation and translation of the terminology of clinical veterinary hematology*. International journal of philology. Vol. 11(3), pp. 73-81.

Nemova, T. V., & Lychuk, M. I., (2022), *Clinical Veterinary Terminology: Specificities of Formation and Translation Difficulties*. International journal of philology, 13(2), pp. 5-14.

Rozhkov, Yu. H., (2021), *Verbalization of Animal Diseases in English: Linguocognitive and Structural-Semantic Aspects*. Dissertation for a Doctor of Philosophy in Philology degree: specialty - 035 Philology. Borys Grinchenko Kyiv University, Kyiv, 224.

Syrotina, O., (2023), *Development trends of the English clinical veterinary terminology system*. Euromentor Journal, Vol. 14. Issue 2, pp. 115-123.

Syrotina, O., (2023), *Origin sources of English veterinary terminology*. Euromentor. Vol. 14. Issue 1, pp. 117-135.

Syrotina, O., & Rozhkov, Yu., (2023), *Genesis of veterinary medicine terminology (based on English and Ukrainian languages)*, Materials of the All Ukrainian scientific-practical conference with international participation. February 22 - 23, 2023, Ukraine, Lviv, pp. 119-126.

RATIONAL VALUES AS REFINED AESTHETIC MOLD- ERASMUS DARWIN

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Abstract: *Medical profession helps people not only by healing the body but also the soul. Medicine has been by man's side since its beginnings, and a society that lacks care for man is doomed to suffering. Even if sometimes the doctors who became literate abandoned the path of practicing medicine, their thoughts turned consciously or not to this noble profession. As Richard Gordon said, without medicine we could not talk about the human being himself: "Man's activities have been hopelessly open to disaster since that calamitous business of the serpent in the Garden of Eden. Best treatment is to admit, to analyze, to avoid. Medicine readily confesses its share. But what a disaster, were there no doctors amid the world's unending catalogue of disasters."*¹

Literature is just one of the languages that doctors use to relate to the world and reality. Of all the exact sciences, medicine is the closest to literary fiction. The art of the word is a reference to what defines us as people. Human gregariousness had to be supported through communication, and medicine has language as its main means of existence and of creating deep inter-human connections. Hence the naturalness of the expression of deep feelings on the page written by those who heal their fellow men physically.

Keywords: *artistic values, innovation, lyrics, Enlightenment, associationism*

What literature and medicine have in common is observation. In the case of the art of healing, the examination is based on scientific evidence around which, like a detective, the doctor does reconstruction work. The writer who weaves a story has the same creative force. Medicine is not only a science of healing, but it has also as its main goal the rediscovery of man.

From the agony of losing a patient to the sublime of saving a life, there was no corner of the human soul left for doctors to explore. All this experience that they have accumulated in their own soul finds its outlet through the art that doctors create.

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¹ Richard Gordon, *Great Medical Disasters*, Hutchinson, 1983, p. 211.

The aim of our article is to reveal the subtle way in which medical specialists found relief and mental comfort in the art of writing. The interweaving of the medical studies of the authors analyzed in this monograph with their deep psychic experience represents the central idea of the approach of this work.

Accustomed to living in a system of scientific values, the personalities of the medical world can show a special inner experience to which we have access as readers. They are living proof that healing begins with the soul and that inner wounds can be more dangerous than physical ones. Defenders of human values, doctors can step beyond the limits of other writers because they are equipped with a fine inner mechanism through which they can detect, like a seismograph, the tremors of human consciousness.

The permanent struggle they lead in their professional life with physical illness continues in their literature. But, this time, the confrontation is aimed at the psychic powers of the human being. Physicians understand man in the most profound way because they struggle daily with his suffering. They are living proof that artistic and scientific experiences can twin and complement each other.

Other fields of scientific knowledge have given humanity personalities who have transgressed into the areas of aesthetics, but the number of doctors who have consumed their imagination in the artistic area far exceeds that of practitioners of other professions. Bold and not afraid to confront preconceptions, doctors approached literature, painting and even music with some of the most amazing results. Everything we experience leaves deep traces and defines us as people. This also applies to doctors who struggle day by day with human suffering. It could be said that facing anomalies can direct the soul towards prosaism.

However, the torments of the human body not only did not widow the doctors of the sense of aesthetics, but, on the contrary, led them to sharpen their sensitivity. Tempered by the flame of suffering, physicians found the power to see and create beauty. The cuteness that directed them to the dark realms of the human body and soul did not affect their drive and enthusiasm to create harmony.

Having access to spiritual values that were beyond the reach of ordinary people, doctors propagated knowledge: "Interhuman contacts, vast experience, the credibility they enjoyed, the desperation determined by suffering that drove people to them, all resulted in a social and cultural impact, above all, huge. Many times, even the great artists of the world

acted on society through doctors and not directly on others. Doctors were the "active agents" who spread the culture, ensuring the creations a human dimension, translating them to fit the people."²

Writing, as a way of debate, is a way of self-treatment against the vulgar caused by suffering. As a confession of what they live in the inner forum, some doctors externalize themselves through art. And this confession should be viewed with much more understanding on the part of the reader as it is doubled by the real experience of the passions that doctors endure.

Witnessing patients' confessions, doctors feel beset by emotions that they must discharge somewhere, and the art of writing offers them that means of getting rid of this overflow. All the experience a physician accumulates acquires a deeper meaning through writing, the more it is passed through the filter of his own experiences.

All this accumulation of experience becomes meaningful when it is shared with their peers. The bliss of writing can only be equaled by seeing their patients healed. Creating, either through the medical act or artistically, gives the sensation of being a creator or at least brings the physician closer to it. Sometimes what pushes them to the creative act is the exact opposite: regrets and writing has the role of penance.

Medical profession is perhaps the most difficult of all. Not only does it require a huge memory capacity and deductive skills, but it also requires long practice and dedication. In the case of medicine, these qualities only make the aesthetic task that many doctors have assumed more difficult. Medicine puts its practitioners face to face with real life because they have access to symptoms that remain unknown to many.

The tight schism between medicine and art is, in essence, man. Both address the same receiver, only the means differ. One addresses the body, the other the soul. The contact with human vulnerability entitles doctors to reach the core of knowledge about ourselves: "The connection between medicine, an exact discipline, but, by virtue of human excellence, and art, in general, is perfectly explicable, if we think that both the other is addressed directly and directly to man and that both interfere in the sphere of human sensitivity. Not infrequently, doctors have shown us that

² Ion N. Oprea, *The contribution of medical journals in the training and training of prestigious personalities*, in *Luceafărul*, July 21, 2015

their work laboratory has become and is also a laboratory of inspiration and creation.”³

If Arab medicine had dominated European knowledge between the 5th and 11th centuries, founded in the 10th century, the School of Salerno trained some of the most refined scholars as well as renowned doctors. This institution was the first in which medical sciences were taught in a systematized way. Still ideologically dependent on the ancient, Arabic and Hebrew teachings, this institution had as its main didactic material a translation of a Latin treatise *Tractatus de pulsibus and De quattuor humoribus corporis humanis*. The school has the merit of also allowing women, called at that time *mulieres salernitanae*, access to medical training.

The European Enlightenment had to contend with feudal beliefs and systems of thought. The only way to fight back and create an innovative society was to abandon dogmas, adopt some rational principles and eliminate, as far as possible, the barriers between social categories. Changing paradigms was one of the ways the Enlightenment was able to reach as many people as possible.

The propagation of sciences, culture and high values regarding the human being took place between the 17th and 19th centuries. The new discoveries in numerous fields, the liberation from the tutelage of religious dogmatism, the aspirations of cultured people for a world centered on the values, ideals and aspirations of the human being made this period a favorable one for change. The astronomer, mathematician, doctor and writer Nicolaus Copernicus (1473-1543) was the one who initiated the scientific revolution. In turn, this led to the propagation of innovative ideas that represented the ideological core of the Enlightenment.

The physicians of these times of cultural revival focus their activity on the patient's interests. At the same time, it is the era in which it becomes desirable for people to gain access to more and more information, in which the role of personal and public hygiene in improving living conditions begins to be understood. Considering human nature to be perfectible, the Enlightenment opened the way to progress and medicine becomes a science per se, which takes its civilizing role seriously. The role of physicians became more and more complex because they are the ones who, having the knowledge, will also have the task of spreading the culture.

³ Ibidem

One of the promoters of this current on English soil was the naturalist philosopher, physiologist, physician and poet **Erasmus Darwin** (1731-1802). At the intersection of the natural sciences, medicine and philosophy, Darwin's poetry was a pioneering attempt to promote rational values in a refined aesthetic form. Although he was criticized for his obvious dogmatism, this doctor's lyrics were an act of great courage.

The club created by Darwin to promote innovative ideas, the *Lunar Society of Birmingham*, was a ferment of local intellectual life that brought together not only cultured people but also new industrialists. The emerging new class, the bourgeoisie, was increasingly attracted to cultural values and had the financial means to propagate intellectual ideas.

Lyrica allowed the dissemination of knowledge to those social categories that did not have the necessary training to understand innovation. And the main category that benefited from this opening was women. The fact that they did not have access to the academic institutions of the time or to scientific discoveries was counterbalanced by the fact that literature allowed this disadvantaged category to approach high standards. The popularization of science soon became an independent category in the literary landscape of the time. The didacticism of which Darwin was accused, although it was obvious, allowed the access of broad layers of society to the new evolutionary theories, discussed within the narrow framework of societies of intellectuals.

Full of social, scientific and even political transformation, Darwin's lyrics came up with innovative theories about the biological evolution of life, plant sexuality and even how the universal came into being. The scientific didactic poetry that Darwin promoted was a new model of approach to the realities in which the new world was being built. Although he was, historically speaking, a contemporary of the Enlightenment, Darwin was also considered a landmark in romantic poetry.

Darwin's authentic character, however, makes it difficult to absolutely integrate his poetry into a specific literary vein. More important than a cataloging of his style, however, is the impact that this doctor's poetry had on intellectual circles and the general public. The breaking free from religious dogmas, the amalgamation of scientific, philosophical and historical notions in an apparently scientific corpus make the doctor's work an original and exciting read.

The violent reaction of society towards the ancient norms seems to have found in Darwin's lyrics a reliable exponent, especially since his

scientific activity was a firm guarantor. The progressivism promoted by Darwin, the optimistic perspective of the possibility of a perpetual evolution of human nature and the concept that we can learn from the study of some biological structures bring an extra positivism. Something that the new society emerging at the turn of the 18th-19th centuries needed.

Erasmus Darwin came from a family that had provided English society with lawyers, army commanders, doctors. As such, following family tradition, Erasmus is in fact the grandfather of the famous naturalist Charles Darwin. Erasmus becomes a doctor after graduating from the Medical School in Edinburgh. His passion for medicine would bring him fame. In 1761, Erasmus was invited to become a royal physician but refused. Erasmus was a visionary. He campaigned for the abolition of slavery, equal rights and access to education.

The interest he had in translating the work of another physician, of Swedish origin, Carl Linnaeus, led to the establishment of an organization dedicated to the translation of the texts of the physician and naturalist of Nordic origin - A Botanical Society, at Lichfield. The extraordinary work of translation would materialize in two volumes *A System of Vegetables* (1783-1785) and *The Families of Plants* (1787).

The terminology proposed by Erasmus has remained in force to this day. In 1789, Erasmus published a novel volume, *The Loves of the Plants*, with which he entered the world of literature and thanks to which he would be known not only as a naturalist but also as a man of letters. Later, the work would be republished during the 1790s under the name Botanic Garden. Initially skeptical and scared of how his lyrical work would be received, Erasmus would be amazed at how well it was received in the society of the time.

However, Darwin's most important work was *Zoonomy* (1794-1796) which foreshadowed the future evolutionary theory the mycologist and biologist Jean-Baptiste Lamarck (1744-1829) would later issue. An admirer of the theories proposed by David Hartley (1705-1757), associationism, Darwin put sensations at the center of emotions as the governing principle of existence. What creates the connection of sensations, images, concepts, feelings and unites them into a unitary whole are associations and repetition.

The evolution of life, as perceived by Darwin, starts from simple organic structures, which later acquire superior values through their own activity, transmitting these improvements to subsequent generations. And

Zoonomy reconfirms these scientific principles that Darwin arrived at and, at the same time, reconfirms that by fulfilling primary needs, living organisms continued to thrive.

In 1804, after the death of Erasmus, *The Origin of Society* is published, which chronicles the evolution from single-celled life forms to nineteenth-century society. The combination of aesthetic images with literary art is a novelty for the era in which Erasmus lived and the innovative character of his writing was appreciated by the romantic poet Wordsworth.

The unique combination of philosophy, naturalism, mythological references and scientific knowledge make Darwin's lyric a gem of English literature, all the more so because it is the creation of a neophyte.

By firm immutable immortal laws
Impress'd on Nature by the Great First Cause,
Say, Muse! how rose from elemental strife
Organic forms, and kindled into life;
How Love and Sympathy with potent charm
Warm the cold heart, the lifted hand disarm;
Allure with pleasures, and alarm with pains,
And bind Society in golden chains.

Four past eventful Ages then recite,
And give the fifth, new-born of Time, to light;
The silken tissue of their joys disclose,
Swell with deep chords the murmur of their woes;
Their laws, their labours, and their loves proclaim,
And chant their virtues to the trump of Fame.

.....
Her snow-white arm, indulgent to my song,
Waves the fair Hierophant, and moves along. —
High plumes, that bending shade her amber hair,
Nod, as she steps, their silver leaves in air;
Bright chains of pearl, with golden buckles brac'd,
Clasp her white neck, and zone her slender waist;
Thin folds of silk in soft meanders wind
Down her fine form, and undulate behind;
The purple border, on the pavement roll'd,
Swells in the gale, and spreads its fringe of gold.

"First, if you can, celestial Guide! disclose
From what fair fountain mortal life arose,
Whence the fine nerve to move and feel assign'd,
Contractile fibre, and ethereal mind:

"How Love and Sympathy the bosom warm,
Allure with pleasure, and with pain alarm,
With soft affections weave the social plan,
And charm the listening Savage into Man."⁴

The colors that Darwin uses - white, silver, amber, gold - are meant to highlight the purity in which life was born.

The Loves of the Plants is unique precisely because of this transmutation of the human world into that of plants. Flowers love, hope and die like people. Their world is, through Darwin's pen, more and more similar to the dramas that human beings experience. The loves, shared or not, of flowers seem to be a parallel to the mead in which man lives his passions. The shy turmeric loves platonic and the mallow has a violent life and other flowers express their longing by crying.

Woo'd with long care, CURCUMA cold and shy
Meets her fond husband with averted eye:
Four beardless youths the obdurate beauty move
With soft attentions of Platonic love.

With vain desires the pensive ALCEA burns,
And, like sad ELOISA, loves and mourns.
The freckled IRIS owns a fiercer flame,
And three unjealous husbands wed the dame.
CUPRESSUS dark disdains his dusky bride,
One dome contains them, but two beds divide.
The proud OSYRIS flies his angry fair,
Two houses hold the fashionable pair.⁵

⁴ Erasmus Darwin, *The Temple of Nature or The Origin of Society, A poem with philosophical notes*, 1803, London, J. Johnson, St. Paul's Churchyard, pp. 9-10.

⁵ Erasmus Darwin, *The Botanic Garden. Part II. Containing The Loves of the Plants. A Poem. With Philosophical Notes*, T. & J. Swords, the Faculty of Physic of Columbia College, 1798, p. 65.

Doctor Darwin's lyrics are important not only to understand how a nature inclined towards science can perceive the world aesthetically, but also to understand the effervescent atmosphere of the British Enlightenment and also of the romanticism current. The heroic couplets that Darwin preferred are built in iambic pentameter that intellectually stir the reader. The references are not only to botany, medicine, mythology, but also to historical events that the author manages to integrate into a unitary, didactic and elevated whole.

Obvious erudition, refined style and attention to detail, make the lyrics of this botanist and physician, a complex and living fabric, as animated as the life that he tries to transpose with pen to paper as a painter transposes his visual art to canvas. Like a multi-faceted diamond, Darwin's lyric lifts a veil and lets the reader enter a world both of the mysteries of creation but subtly addresses some of the deepest insights of natural philosophy, technology, subtle eroticism, history, linguistics and life. science that animates the 18th century. It is this seemingly unrelated amalgam that has led some exegetes to declare Darwin's writing a disorganized eclecticism, "magpie intertextuality."⁶

Tireless in seeking to alleviate human suffering, Darwin experiments with various gases for palliative purposes. In fact, the way clouds are formed was the subject of a study that Darwin published in 1788.

In 1784 the doctor publishes *Zoonomy*. In the poem *The Temple of Nature*, Darwin presents the evolutionary ideas of life that evolved from unicellular to the appearance of man. At the same time, the doctor notes that a law still applicable to life is transformation. Another idea that the doctor brings to the attention of the reader is heredity, what characteristics are inherited.

In the introduction to *Frankenstein* from 1831, Mary Shelly explicitly mentions the doctor Darwin whose ideas formed the basis of Lord Shelley's novel. More specifically, it is about bringing an apparently lifeless organism back to life through the use of electroplating.

Trying to translate scientific knowledge into poetry, Erasmus Darwin makes use of scientific education. Darwin created the premises for a liberalization of the arts in the sense of openness to science. The two approaches - science and art - begin to be used more and more in the 19th century, and the doctor Darwin and his lyrics are in its atrium. The

⁶ Martin Priestman, *The Poetry of Erasmus Darwin: Enlightened Spaces, Romantic Times*, Farnham, Surrey: Ashgate, 2013, p. 67.

challenge the doctor brought to literature is a parallel he drew between the world of botany and human organization.

By bringing biological life to the level of human life, it revealed unsuspected microcosms, created the sensation of a multi-faceted existence in which man is no longer the main actor. The change of paradigm, the departure from the patterns imposed by the literature of the time is what ensured the success of these writings. However, there have been other attempts in English literature to juxtapose science and lyricism. The poet Abraham Cowley wrote *History of Plants* in 1689, a successful interweaving of lyrical mastery and elements of botany and even medicine.

But perhaps more important than the scientific content is the timing of Darwin's publication. For once the path to popular scientific culture had been opened since 1790, the new ideas would be integrated much more easily and addressed to an ever wider and more eager public for intellectual challenges. Even if the framing of Darwin's poetry cannot be done precisely in a particular literary current, it is a departure from the literary canon by addressing such taboo issues as sexuality, morality and political mores. The innovation that the doctor brings is the unchaining of dogma and conservatism. Living scientifically and feeling lyrically, Darwin positioned himself at the junction of the two approaches to reality and assumed a difficult role for that time - that of interconnecting them into a harmonious whole.

Aided by the intuition they have developed, doctors propagate the noblest moral and cultural values. The receptivity and affective identification of the personality of others come to enrich the dense baggage of scientific knowledge. It is natural that exceptional artistic values arise from this twinning. Scientific language is not equipped with all the strings on which the human soul can resonate and doctors, assuming the role of healers, understood that they can make suffering a source of aesthetic beauty.

What can be more uplifting than finding the strength to find the beautiful even in the darkest corners of the human being! Medicine is meant to get closer to man, to help and save human beings. Although they have had disturbing experiences, there are not a few medical practitioners who have kept their candor and deep emotion that they managed to translate into art or literature.

Writing became a way to transmit knowledge, feelings and everything that concerned Hippocrates' servants. At the same time, literature clarifies

many of the dilemmas they had in relation to existence. Doctors, aware of the enormous value of knowledge, made their contribution through their practical activity but also through their writing. Their literary works often bear the imprint of their profession or their own sufferings. Medicine not only heals physically but also spiritually and the path of literature was something natural for those practitioners who wanted more.

The awareness of the fact that all human knowledge represents a whole was only a first stage for creating the premises of an evolutionary understanding of any field. By its nature, by the fact that it was devoted to man and his healing, medicine carried one of the most difficult duties: that of bringing the advances made by science closer to the man it addressed. Medical sciences represented an important link in the chain of human knowledge and Enlightenment intuited this phenomenon.

REFERENCES:

Darwin, Erasmus, (1798), *The Botanic Garden. Part II. Containing The Loves of the Plants. A Poem. With Philosophical Notes*, T. & J. Swords, the Faculty of Physic of Columbia College.

Darwin, Erasmus, (1803), *The Temple of Nature or The Origin of Society, A poem with philosophical notes*, London, J. Johnson, St. Paul's Churchyard.

Gordon, Richard, (1983), *Great Medical Disasters*, Hutchinson.

Oprea, Ion N., (2015), *The contribution of medical journals in the training and training of prestigious personalities*, in *Luceafărul*, July 21.

Priestman, Martin, (2013), *The Poetry of Erasmus Darwin: Enlightened Spaces, Romantic Times*, Farnham, Surrey: Ashgate.