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### **EMOTION MINING FROM STUDENT COMMENTS A LEXICON BASED APPROACH FOR PEDAGOGICAL INNOVATION ASSESSMENT**

**Abstract:** Course evaluation provided by student's play a major role in a wide range of factors that include suggestions on areas of improvement in terms of teaching, available resources, study environment, and student assessment techniques. These evaluations are collected in both quantitative and qualitative forms. The quantitative feedbacks include a Likert-type scale in which responses are scored along a range, to capture the level of agreement and disagreement. Whereas the qualitative feedbacks provide an open portal for the students to convey their feelings, thoughts or opinion about the course, instructor and assessments in a more general way. The qualitative data is in the form of textual comments which can be processed to mine student's emotional feeling and gain more intellectual insights. In this work we focus on qualitative student feedbacks through text mining and sentiment analysis. We analyze the efficiency of Active Learning methods Light Weight teams and Flipped Classroom. Results show the implementation of these methods is linked with increased positivity in student emotions.

**Keywords:** Data Mining; Education; Emotion Mining; Flipped Classroom; Light Weight Teams; Visualization.

#### **Introduction:**

Student evaluation of teaching is an important element in the process of evaluating and improving instruction in higher education as described by Zabaleta [1]. These evaluations help not only in teaching improvements but also in some of the decisions like future employment, retention, and promotion of faculty. It is now-a-days common in almost any edu-

cational institution to collect end of course evaluation, which allows students to express their feelings or opinion about the instructor. These evaluations are collected at the end of course typically end of semester. There are basically two types of question format in the evaluation system: Quantitative and Qualitative. Quantitative questions are Likert-type items which the students can respond in the scale of 1 to 5, starting

with Strongly Agree – 1, Agree – 2, Neutral – 3, Disagree – 4, and Strongly Disagree – 5. Qualitative questions are open ended questions where students can write their opinion, and/or thoughts in a free style manner. According to author Clayson [2] since the 1970's the application of student evaluation in teaching has become nearly universal.

Data Mining is one of promising fields which involves the practice of searching through large amounts of computerized data to find useful patterns [3]. These patterns are then utilized by analysts to find interesting measures and apply strategies to improve the current methodology or practices. According to author's Spooen et al. [4] there are three main purpose for which student evaluations are used as follows: a) improve teaching methodology and/or quality; b) serve as input for tenure/ promotion decisions, and; c) Demonstrate the evidence of institutional accountability in terms of resources and environment provided. Mining this kind of educational data is one of the important areas of research which is gaining importance in recent years due to increase in the demand of quality education and the demography of students attending higher education. Most of the students in recent years are Millennials and their mindset towards education is different which requires better understanding from University and the Instructors in order to provide a better experience in education.

In recent years there is an increase in the need for understanding what is said about a element. For instance, in an online store, customer reviews about a product – where customers convey their opinion about the quality and usefulness of the product and how well it suits their expectation. These kind of reviews helps business analyst improve their marketing strategies and apply to the quality of the products. Understanding people's feeling or emotion is a separate area of research which is called Sentiment Analysis.

The word Emotion dates to 1570's, derived from old French 'emouvoir' meaning 'stir up' according to online Etymology dictionary. Scientific research in understanding Human Emotion's dates to 1960's.

For instance, Ekman [5] studied human emotions and their relation to facial expressions. According to Ekman there are six basic emotions 'anger', 'disgust', 'fear', 'joy', 'sadness', and 'surprise'. Similarly, there are other scientists who proposed emotion theories, Author James [6] and Plutchik [7]. In [8], the authors discuss different basic emotion models proposed by theorists since 1960. In this work we use the National Research Council – NRC Emotion lexicon [9; 10].

In this paper we focus on mining student feedback collected from the end-of-semester course evaluations, in particular the qualitative results and identify student's emotion to understand whether incorporation of Light Weight teams [11; 12], and Flipped Classroom techniques [13] helped students during the course for the time period 2013 to 2017.

Reminder of this paper is organized as follows: section II talks about the related work in the area, section III the methodology in data extraction and emotion labeling followed by Experiments and results in section IV and Discussion and Conclusion in section V and VI respectively.

#### **Related Work:**

In this section we review studies that have been done in the area of analyzing student evaluations, including text and quantitative data.

Authors Kim et al. [14] perform Sentiment Analysis on the ratings and textual responses of student evaluation of teaching. They automatically rate the textual response as one of the three categories 'positive', 'negative', and 'neutral'. In which they have compared the performance of categorical model and dimensional model where 'joy' and 'surprise' are positive class, 'anger', 'fear' and 'sadness' are negative class respectively. In their work they have utilized two emotion lexicons WordNet-Affect and ANEW for the sentiment classification tasks. The following five approaches are modeled for automatic classification of three sentiments 'positive', 'negative', and 'neutral': a) Majority Class Baseline (MCB); b) Keyword Spotting (KWS), c) CLSA – LSA based categorical classification; d) CNMF – NMF based categorical classifica-

tion, and; e) DIM – Dimension based estimation. It is shown in terms of precision, recall and f-measure that NMF based categorical and dimensional models have a better performance than other models.

Typically, in an end-of-course evaluation the students do not benefit to see the actions taken as they move on from the section after that semester. In order to overcome it is required to obtain prompt feedback from students to instructors and necessary actions can be taken during the course. Authors Leong et al. [15] propose the use of short message service (SMS) for student evaluation and explore the application of text mining in particular Sentiment Analysis ('positive' and 'negative') on SMS texts. They show the positive and negative aspects of lecture in terms of the conceptual words extracted and text link analysis visualization.

Similar to [15] authors Altrabsheh et al. [16] explore approaches for real time feedbacks. This work discusses how feedback is collected via social media such as Twitter and apply Sentiment Analysis to improve teaching called as *Sentiment Analysis for Education (SA-E)*. This system collects data from Twitter where the students provide their feedback. The text data after pre-processing and extracting features including: term presence and frequency, N-gram position, part-of-speech, syntax, and negation. Later the text is analysed via Naive Bayes and/or Support Vector Machine which categorizes the whole post as either 'positive' or 'negative'.

Authors Jagtap et al. [17] perform Sentiment Analysis on student feedback data classifying into 'positive' and 'negative' categories. They combine Hidden Markov Model (HMM) and Support Vector Machine (SVM) and use a hybrid approach for sentiment classification. Though they have concluded that applying advance feature selection method combined with hybrid approach work well for complex data, their works did not show the results of classification model for validation.

Authors Rajput et al. [18] apply text analytics methods on student's feedback data and obtain

insights about teacher's performance with the help of tag clouds, and sentiment score. In this work the authors use sentiment dictionary Multi-Perspective Question Answering (MPQA) [24] to find words with positive and negative polarity. By combing the word frequency and word attitude the overall sentiment score for each feedback is calculated. Finally, they have compared the sentiment score with Likert scale-based teacher evaluation and conclude that Sentiment score with word cloud provide better insights than Likert-scale results.

In this paper we propose analyzing the qualitative end-of-course teacher evaluations with fine grained emotions such as 'anger', 'trust', 'sadness', 'joy', 'anticipation', 'fear', and 'disgust' with the help of National Research Council – NRC Emotion lexicon and combing the word frequency and sentiment score to determine the overall sentiment – emotion associated with student comments.

### Methodology:

This section details the approach used in this paper to process the student evaluation data. The following are the steps involved in the experimental framework. Data collection, data extraction, pre-processing, Emotion labeling, visualization. The overall methodology is shown in (Figure 1).

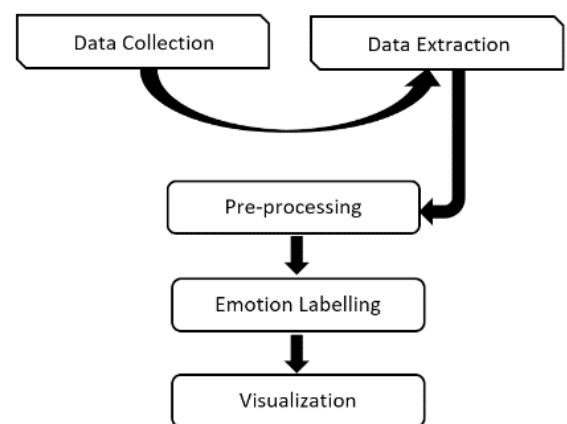


Figure 1. Methodology

### Data Collection:

The data for this study is collected from the Web-Based course evaluation system by UNC Charlotte. This system is administered by a third-party

Campus Labs. In assistance with UNC Charlotte Center for Teaching and Learning, Campus Labs collect the student feedback for course evaluations. The student feedbacks for an instructor is collected for the terms of 2013 to 2017 including Fall, Spring and Summer sections of various courses handled by the instructor. We collect the html files from Campus Labs website for each of the semester. Next, we

process the data as described in the Data Extraction subsection below. This data includes both quantitative and qualitative results. For this study we used qualitative feedback mainly focusing on Sentiment Analysis. Sample qualitative data shown in (Table 1). The (Table 2). shows the list of semesters for which the data is collected.

Table 1. – Sample Student Feedback – Qualitative

S. NO	Top
1.	Easily available to communicate with if needed
2.	The course has a lot of valuable information
3.	Get rid of the group project
4.	There was no enthusiasm in the class. The instructor should make the class more lively and interactive.
5.	Best professor

Table 2. – List of Semesters – Student Feedback

Year	Semester
2013	Spring, Summer, Fall
2014	Spring, First Summer, Second Summer, Fall
2015	Spring, First Summer, Second Summer, Fall
2016	Spring, Spring Midterm, First Summer, Second Summer, Fall
2017	Spring, First Summer, Second Summer, Fall

Table 3. – Sample Data Extracted

Year	Term	Course	Question	Comments
2014	Fall 2014	Operating Systems and Networking	Please list outstanding strengths of the course and/or instructor	Easily available to communicate with if needed
2014	Fall 2014	Operating Systems and Networking	Please list outstanding strengths of the course and/or instructor	The course has a lot of valuable information
2014	Fall 2014	Operating Systems and Networking	Please provide other observations, comments, or suggestions	Get rid of the group project
2017	Fall 2017	Cloud Comp for Data Analysis	Please suggest areas for improvement of the course and/or instruction method	There was no enthusiasm in the class. The instructor should make the class more lively and interactive
2017	Fall 2017	Cloud Comp for Data Analysis	Please list outstanding strengths of the course and/or instructor	Best professor

**Data Extraction:**

After the data collection from Campus Labs, jsoup [19] a Java library is used to process the html files and extract the comments. The following fields are extracted from the html file: Year, Term, Course, Questions, Comments. Sample data is shown in Table 3. The data extracted consists 959 records with the five attributes as mentioned in (Table 3).

**Pre-Processing:**

Pre-processing is one of the important steps in handling text data. This involves removal of noisy and unwanted parts from the text. In this work the

Input: "She is good at reading powerpoints, I guess."

Output: 

She	is	good	at	reading	powerpoints	,	I	guess
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Figure 2. Tokenization

**Lower Case:**

Natural language text written by human beings contains both lower case and upper case. In terms of processing this kind of text using a machine requires all the text to be in same case for better performance. This step changes the text to lower case.

**Stop Words Removal:**

Some of the words in English language are frequently used in order to make the sentence more complete in terms of grammar. These words are generally not much useful in terms of the context of the sentence in most of the cases. For instances words like 'am', 'is', 'was', 'are' etc. There is list of stop words available in the Python Natural Language Toolkit (NLTK) [20] corpus which is used as part of this stop words removal step.

In the pre-processing step, certain comments which are not valid are removed for instance comments with only 'n/a', 'NA', etc. The pre-processed dataset contains close to 700 records in the dataset.

**Emotion Labeling:**

After Data extraction and pre-processing the next important step is labeling the data – student feedback comments with different types of Emotion. We use the National Research Council – NRC Lexicon [9],

Python Natural Language Toolkit (NLTK) [20] is used to work with student evaluation data. The following steps are involved in pre-processing of student course evaluation comments: Tokenization, lower case, stop words removal.

**Tokenization:**

Tokenization is the process of splitting the text or sentence into words. In specific it is the task of chopping character sequences into pieces called tokens (words) and removing certain characters like punctuation. An example is shown in (Figure 2).

[10] for this purpose. NRC Emotion lexicon is a list of English words and their associations with eight basic emotions (anger, fear, anticipation, disgust, surprise, trust, joy, and sadness) and two sentiments (positive and negative). The Annotations in the lexicon are at WORD-SENSE level. Each line has the format: <Term> <AffectCategory> <AssociationFlag> as shown in (Figure 3). A tree map of the lexicon with words containing Flag as 1 for each of the respective emotion filtered is shown in (Figure 4).

Each of the student comments is processed and if a match to word is found then the score is incremented accordingly based on the Flag value in lexicon, here if a word is present twice then automatically based on the frequency score for that particular emotion will be incremented. After the entire comment is processed the Emotion which has the highest score is assigned as the final Emotion with respect to that student comment. As part of Emotion labeling if the final emotion score is zero then those records are omitted from the dataset.

**Visualization:**

This paper mainly focuses on identifying if the students are feeling better in a way the course is delivered with changes including Light Weight teams,

flipped class room, and active learning methodologies. After labeling the students feedback with appropriate Emotion class, the data is used to visualize the results over the years 2013 to 2017 and results are

analyzed. For visualization Tableau software [21] is used. Visualization is a powerful tool for exploring large data, both by itself and coupled with data mining algorithms [22].

**<term>**<tab>**<AffectCategory>**<tab>**<AssociationFlag>**

**<term>**: is a word for which emotion associations are provided;

**<AffectCategory>**: is one of eight emotions (anger, fear, anticipation, trust, surprise, sadness, joy, or disgust) or one of two polarities (negative or positive);

**<AssociationFlag>**: has one of two possible values: 0 or 1. 0 indicates that the target word has no association with affect category, whereas 1 indicates an association.

Figure 3. NRC Emotion Lexicon – Word Level Annotation

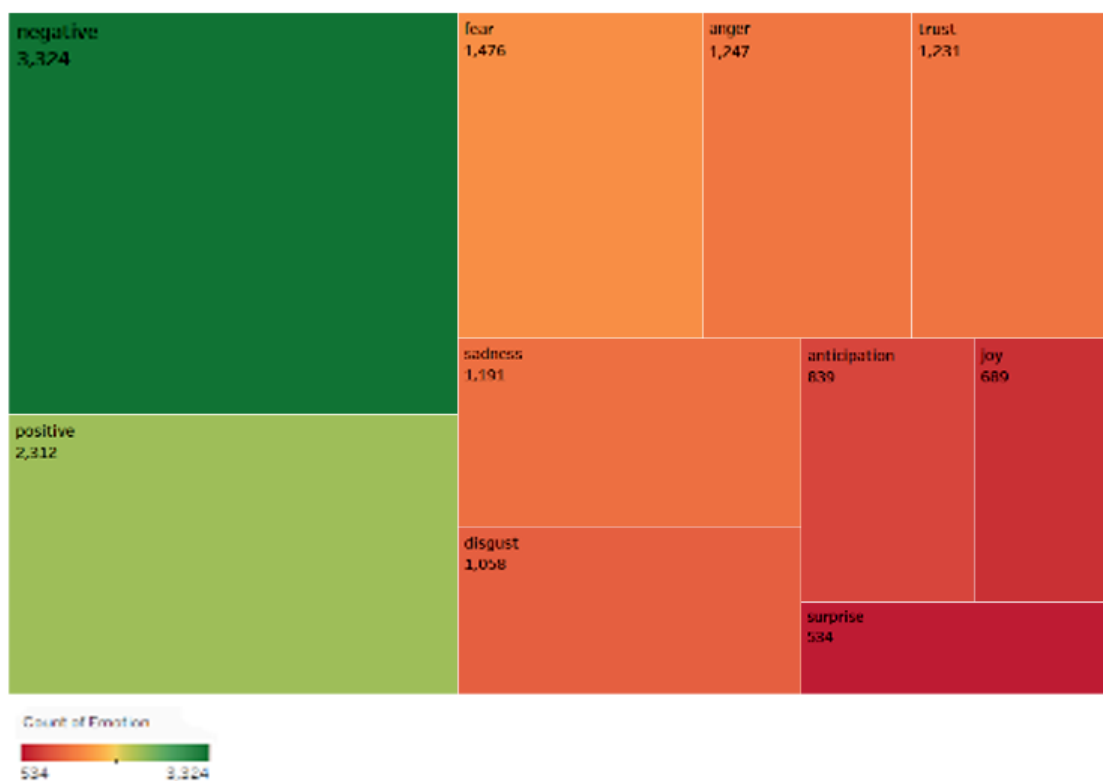


Figure 4. Tree Map – NRC Emotion Lexicon

### Experiments and Results:

In this section we describe our experiments and results. The data for this study is collected from UNC Charlotte Campus Labs website. Sample qualitative data shown in (Table 1). The data extracted consists 959 records with the five attributes

as mentioned in (Table 3). The pre-processed dataset contains close to 700 records in the dataset. For labeling the data – student feedback comments with different types of Emotion. We use the National Research Council – NRC Lexicon [9; 10].



We conduct two sets of experiments one which includes the positive and negative polarity along with basic emotions 'anger', 'trust', 'fear', 'sadness', 'disgust', 'anticipation', 'surprise', and 'joy', other only with the basic emotions. The experiments are separated in such way because the lexicon used contains most of the words tagged as positive and negative as shown in (Figure 4).

#### **Experiment 1 – Labeled with Basic Emotion and Polarity:**

In Experiment 1, the pre-processed data is passed to the system which finds the word associated with 8 basic emotions and the polarity for each of the stu-

dent feedback response. After which the scores are calculated based on the frequency of each emotion and polarity related words. The sentiment that has highest score is assigned as overall emotion/polarity. The results are shown on a temporal basis from 2013 until 2017 on the X-axis and the count of each emotion on the Y-axis in (Figure 5). It is observed that emotion 'trust' and polarity 'positive' has a growing trend through the time. Similarly, we see that 'anticipation' was high during the year 2014 which gradually decreased in the year 2017. These changes are attributed towards active learning methodology implemented in the year 2016 and 2017.

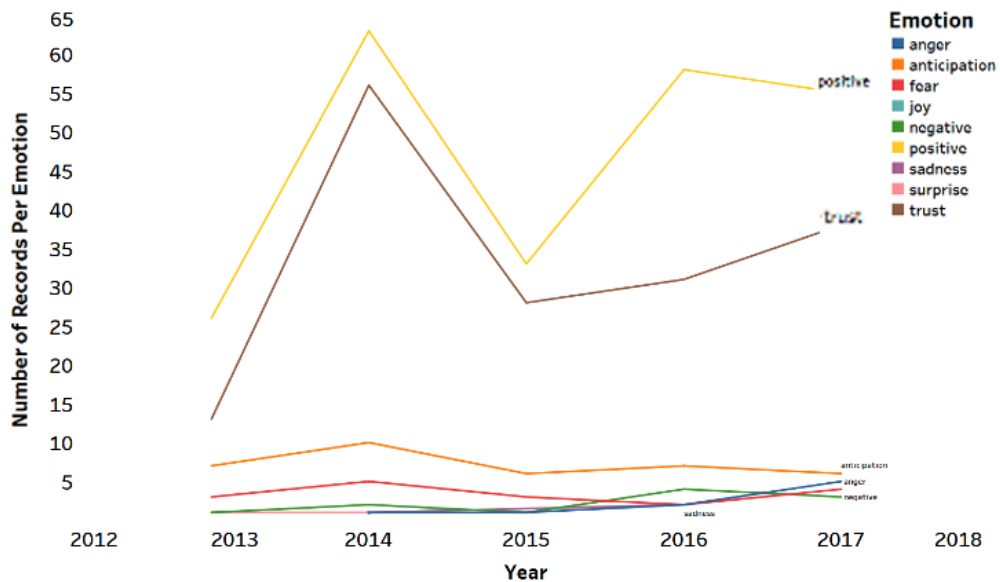


Figure 5. Experiment 1 – Basic Emotion and Polarity.

#### **Experiment 2 – Labeled with Basic Emotions:**

In Experiment 2, the pre-processed data is passed to the system which finds the word associated with 8 basic emotions for each of the student feedback response. After which the scores are calculated based on the frequency of each emotion related words. The sentiment that has highest score is assigned as overall emotion. The results are shown on a temporal basis from 2013 until 2017 on the X-axis and the count of each emotion on the Y-axis in Figure 6. The results for this experiment is almost the same as Experiment 1, without the two polarities 'positive' and 'negative'. It is observed that emotion 'trust' has a growing trend

through the time. Similarly, we see that 'anticipation' was high during the year 2014 which gradually decreased in the year 2017. In Experiment we observe emotion 'joy' for the year 2016 when actually active learning methodology was started in the classes. But the count of the emotion 'joy' is low compared to others in the data.

#### **Sentiment Analysis and Emotion Detection in Student Evaluations – Word Cloud:**

Word Cloud is a text summarization, which shows the most frequently occurring words in a text, with the largest font. Word Cloud is helpful to learn about the number and kind of topics present in the text [23].

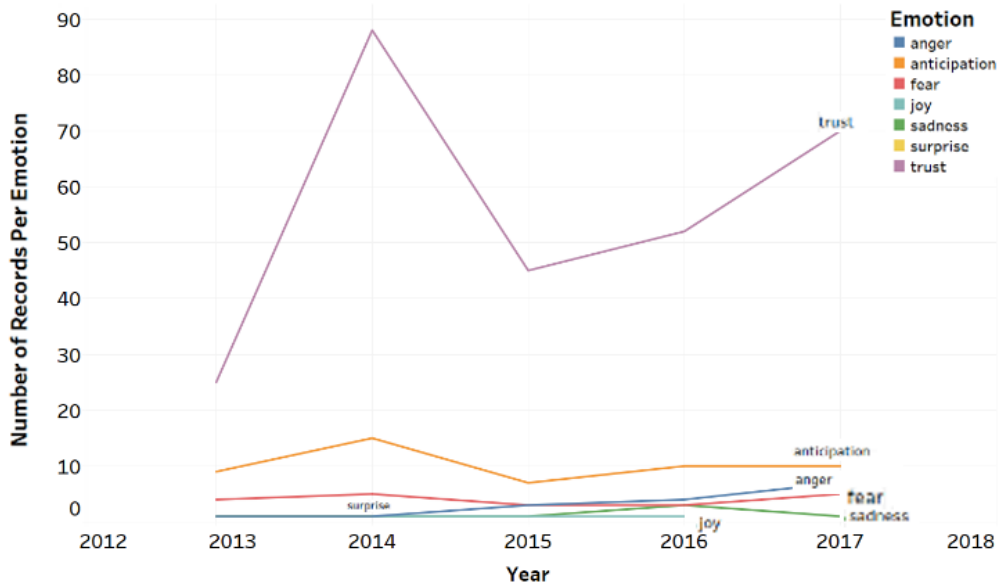


Figure 6. Experiment 2 – Basic Emotion

In this work we use the Word Cloud package in Python to create Word Clouds using the emotional words from the student evaluation data. During the emotion labeling step for each of the student feedback, the emotional words are recorded separately for each of the eight emotion and the positive and negative polarities. To form word-cloud the list of words from the following emotions ‘anger’, ‘fear’, ‘sadness’, ‘disgust’, and ‘negative’ are taken as negative word list from the NRC Emotion Lexicon [9;10]. These words appear in ‘red’ color in the word cloud. The positive words are words that denote the following emotion ‘joy’, ‘trust’, ‘anticipation’, and ‘positive’ polarity appear in grey scale. The most frequently occurring positive Words are shown in green color.

We observe that the year 2014 and 2015 have more negative words including ‘problem’, ‘waste’, ‘disappointed’, ‘awful’, ‘painful’ and others as shown in (Figure 8) and (Figure 9). In 2017, the (Figure 11). shows more frequency of positive words like ‘helpful’, ‘resources’, ‘good’, ‘information’. In 2017 Active Learning methods were implemented in the courses, including Light Weight Teams [11; 12], and Flipped Classroom [13]. We show that occurrences of negative emotion words in the Figure 11. like ‘terrible’ have decreased since 2017.

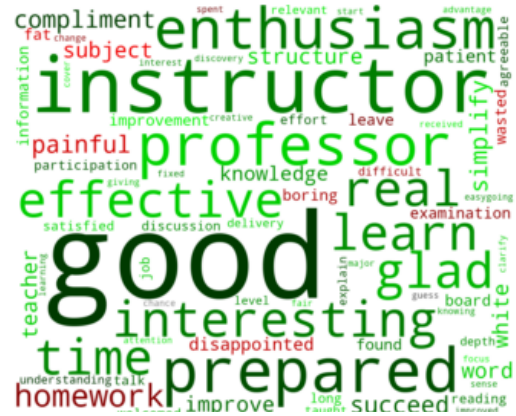


Figure 7. WordCloud-2013. Most frequent word appears with largest font. Negative words in red. Positive words in green

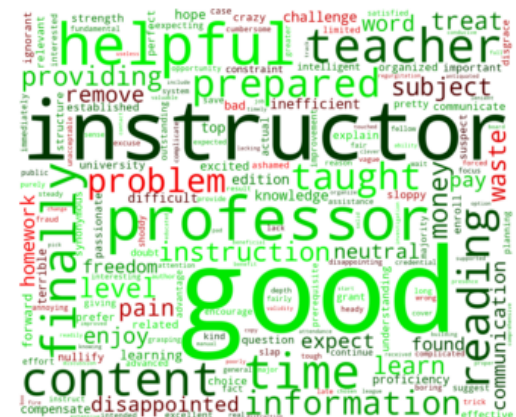


Figure 8. WordCloud-2014. Most frequent word appears with largest font. Negative words in red. Positive words in green

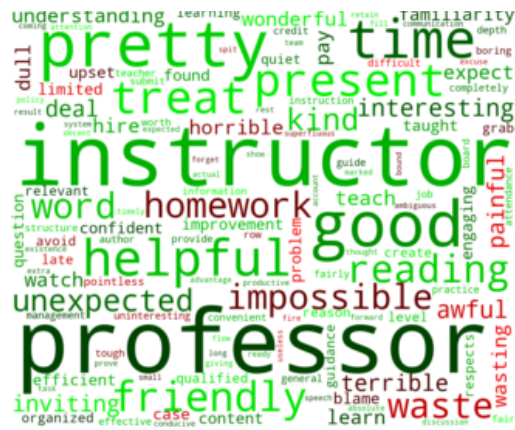


Figure 9. WordCloud-2015. Most frequent word appears with largest font. Negative words in red. Positive words in green



Figure 10. WordCloud-2016. Most frequent word appears with largest font. Negative words in red. Positive words in green

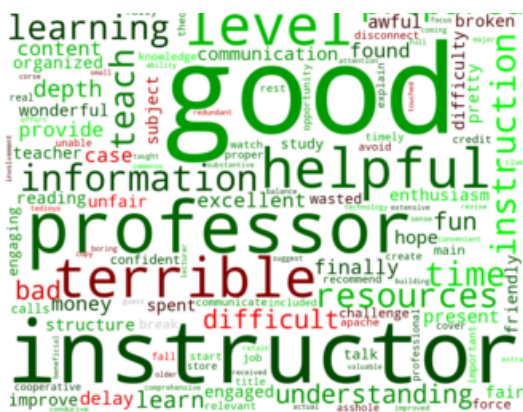


Figure 11. WordCloud-2017. Most frequent word appears with largest font. Negative words in red. Positive words in green

Therefore, we claim that the implementation of Light Weight Teams and Flipped Classroom Active

Learning methods increase positive emotions among students and improve their learning experience.

#### Discussion:

In this work we use the NRC emotion lexicon [9; 10] and label each student feedback with appropriate emotion based on the overall score of emotional word frequency. We see that the words like 'examination', 'presentation', 'subject' are normal terms that students use to describe a course. These words in general are considered negative but not in educational domain as they are typical to explain any course requirements. It is identified that general purpose lexicon does not suit the educational domain directly but require some changes.

Also, we see some false positives in the emotion labeling for the contents as follows: For instance, the following comment '*Don't talk at us for 2 and a half hours. The class would do well to integrate clicker questions and discussion*' is assigned a positive emotion according to the methodology adopted. This is because of the presence of words like 'well', 'talk', 'discussion'. Another example '*Please change the test structure to actually test the student's knowledge and assign more programming projects.*' is assigned a positive emotion due to the presence of words like 'structure', 'knowledge'.

#### Conclusion:

In this work we perform sentiment analysis, and emotion detection on the qualitative feedback provided by students in course evaluations. We identify eight basic human emotions: 'anger', 'fear', 'joy', 'surprise', 'anticipation', 'disgust', 'sadness', and 'trust' along with the two sentiment polarities 'positive' and 'negative'. We use these emotions to analyze and assess the impact and effectiveness of Active Learning methods incorporated in the classroom during the years 2016 and 2017, compared to previous years. Active Learning methods were initiated in 2016, and implemented in 2017, in the courses including Light Weight Teams [11; 12], and Flipped Classroom [13]. Results show evidence that words associated with positive emotions, and trust have increased in the recent years

compared to 2014. At the same time, occurrences of negative emotion words in the (Figure 11). have decreased. Therefore, we claim that the implementation of Light Weight Teams and Flipped Classroom Active Learning methods increase positive emotions among students and improve their learning experience. In the future we plan to extend this

work, by analyzing more Active Learning pedagogy methods such as gamification. We also plan to focus on women and minorities in computing discipline.

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#### **References:**

1. Zabaleta F. The use and misuse of student evaluations of teaching. *Teaching in Higher Education*,– Vol. 12. – No.1. 2007.– P. 55–76.
2. Clayson D. E. Student evaluations of teaching: Are they related to what students learn? A meta-analysis and review of the literature. *Journal of Marketing Education*,– Vol. 31.– No. 1. 2009.– P. 16–30.
3. Dictionary M. W. (2002). Merriam-Webster. On-line at URL: <http://www.mw.com/home.htm>
4. Spooren P., Brockx B., & Mortelmans D. On the validity of student evaluation of teaching: The state of the art. *Review of Educational Research*,– Vol. 83.– No. 4. 2013.– P. 598–642.
5. Ekman P. An argument for basic emotions. *Cognition & emotion*,– Vol. 6.– No. 3–4. 1992.– P. 169–200.
6. James W. What is an emotion? *Mind*,– Vol. 9.– No. 34. 1884.– P. 188–205.
7. Plutchik R. Emotions and psychotherapy: A psychoevolutionary perspective. In *Emotion, psychopathology, and psychotherapy*,– P. 3–41.
8. Ortony A., & Turner T. J. (1990). What's basic about basic emotions? *Psychological review*,– Vol. 97.– No. 3. 1990.– P. 315.
9. Mohammad S. M., & Turney P. D. Crowdsourcing a word–emotion association lexicon. *Computational Intelligence*,– Vol. 29.– No. 3. 2013.– P. 436–465.
10. Mohammad S. M., & Turney P. D. Emotions evoked by common words and phrases: Using Mechanical Turk to create an emotion lexicon. In *Proceedings of the NAACL HLT 2010 workshop on computational approaches to analysis and generation of emotion in text*, Association for Computational Linguistics, 2010. Junepp.– P. 26–34.
11. Latulipe C., Long N. B., & Seminario C. E. Structuring flipped classes with lightweight teams and gamification. In *Proceedings of the 46<sup>th</sup> ACM Technical Symposium on Computer Science Education*, 2015.– P. 392–397.
12. MacNeil S., Latulipe C., Long B., & Yadav A. Exploring lightweight teams in a distributed learning environment. In *Proceedings of the 47<sup>th</sup> ACM Technical Symposium on Computing Science Education*, 2016.– P. 193–198.
13. Maher M. L., Latulipe C., Lipford H., & Rorrer A. Flipped classroom strategies for CS education. In *Proceedings of the 46<sup>th</sup> ACM Technical Symposium on Computer Science Education*, 2015.–P. 218–223.
14. Mac Kim S., & Calvo R. A. Sentiment analysis in student experiences of learning. In *Educational Data Mining*. 2010.
15. Leong C. K., Lee Y. H., & Mak W. K. Mining sentiments in SMS texts for teaching evaluation. *Expert Systems with Applications*,– Vol. 39.– No. 3. 2012.– P. 2584–2589.
16. Altrabsheh N., Gaber M., & Cocea M. SA-E: sentiment analysis for education. In *International Conference on Intelligent Decision Technologies*,– Vol. 255. 2013. Junepp.– P. 353–362.

17. Jagtap B., & Dhotre V. SVM and HMM based hybrid approach of sentiment analysis for teacher feedback assessment. *International Journal of Emerging Trends & Technology in Computer Science (IJETTCS)*,– Vol. 3.– No. 3. 2014.– P. 229–232.
18. Rajput Q., Haider S., & Ghani S. Lexicon-Based Sentiment Analysis of Teachers’ Evaluation. *Applied Computational Intelligence and Soft Computing*, 2016.– 1 p.
19. Hedley J. (2009). jsoup: Java html parser. 2009. – P. 11–29. [2015–06–12] URL: <http://jsoup.org>.
20. Bird S., Klein E., & Loper E. *Natural language processing with Python: analyzing text with the natural language toolkit*. “ O’Reilly Media, Inc.” 2009.
21. Hanrahan P. *Tableau software white paper-visual thinking for business intelligence*. Tableau Software, Seattle, WA. 2003.
22. Hanrahan P., & Stolte C. U. S. Patent No. 7, 800, 613. Washington, DC: U. S. Patent and Trademark Office. 2010.
23. Heimerl F., Lohmann S., Lange S., & Ertl T. Word cloud explorer: Text analytics based on word clouds. In *System Sciences (HICSS)*, 2014. 47<sup>th</sup> Hawaii International Conference on (P. 1833–1842). IEEE.
24. Wiebe J., Wilson T., & Cardie C. Annotating expressions of opinions and emotions in language. *Language resources and evaluation*,– Vol. 39.– No. 2–3. 2005.– P. 165–210.

## Section 2. Preschool Education

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### TRAINING OF NATIONAL LANGUAGE IN KINDERGARTENS OF THE REPUBLIC OF ESTONIA

**Abstract:** Experience of kindergartens in the Republic of Estonia with a different technique of training in a national language. Documents, actions at the national, city levels, and daily activity of teachers in kindergartens.

**Keywords:** language, kindergarten, technique, foreign experience, Estonia, preschool education.

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### ОБУЧЕНИЕ ГОСУДАРСТВЕННОМУ ЯЗЫКУ В ЗАВЕДЕНИЯХ ДОШКОЛЬНОГО ОБРАЗОВАНИЯ ЭСТОНСКОЙ РЕСПУБЛИКИ

**Аннотация:** Опыт детских садов с разной методикой обучения государственному языку в Эстонской Республике. Документы, действия на государственном и городском уровнях, а также повседневная деятельность педагогов в детских садах.

**Ключевые слова:** язык, детский сад, методика, зарубежный опыт, Эстония, дошкольное образование.

**Постановление проблемы.** Интеграция Украины в Европейский союз вынуждает политиков, чиновников, педагогов принимать опыт стран Европы. Эстония – страна, которая на протяжении половины столетия развивалась вместе с Украиной, но после провозглашения независимости стала активно развиваться во всех социальных сферах, включая педагогику и дошкольное образование. Как страна бывшего Советского союза Эстонская Республика столкнулась с проблемой национального языка:

в общении большинства жителей преобладает русский язык. Опыт обучения в эстонских дошкольных учреждениях детей, которые прибыли с русско-, финско-говорящей семьи может быть применен в Украине для обучения детей на пограничных территориях Венгрии, Словении, Польши, а также в других странах, особенно Восточной Европы. Но данной проблеме украинские политики и ученые не придают особого значения и не прописывают на законодательном уровне навыки которые должен получить ребен-

нок по окончанию заведения, если его первый язык не украинский.

**Цель статьи:** описать опыт Эстонской Республики в обучении детей государственному языку на примере детских учреждений города Таллинн – Линнамяэ и Лойтсу. Цель реализуется через такие задания как: раскрыть особенности методик обучения государственному языку в Эстонской Республике; проанализировать эффективность методик обучения в заведениях дошкольного образования Украины.

**Изложение основного материала.** В Эстонской Республике заведения дошкольного образования разделяют на два вида: учреждения с методикой языкового погружения в государственный язык и учреждения, где государственный язык изучается как второй.

Методика языкового погружения в государственный язык подразумевает систему: один человек – один язык. В учреждении общение происходит на государственном языке, что вынуждает детей освоить язык быстрее. Исключение – учителя в младших группах (до 3–4 лет), которые владеют родным языком детей. Если ребенок задает вопрос педагогу на родном языке, то учитель отвечает на государственном. В младших группах все слова педагог сопровождает изображениями. Для каждого действия – своя картинка. Учитель разговаривает всегда одинаковыми фразами, не изменяя слов. Например, в учреждении Лойтсу педагог начал говорить еще в начале года так: «пойдемте на музыку», значит, он уже никогда не скажет «пойдемте на музыкальное занятие». Также сложность данной методики состоит в том, что родитель «зацикливается» на том, что ребенок обучается на государственном языке и начинает сам на нем говорить. В результате может произойти смесь языков у ребенка, что приведет к Дислалии и Дисграфии. Поэтому педагоги настоятельно просят родителей заниматься с детьми на родном языке. Таким образом ребенок в учреждении будет говорить с друзьями на

государственном языке, а за пределами его – на родном. Конечным результатом при правильном обучении ребенка будет наблюдаться билингвизм.

Методика обучения государственному языку, в качестве второго является более эффективной, когда государство только начинает процесс реформирования. К примеру, на западной территории Украины жителей не заинтересовывают изучать государственный язык углубленно, тем более что заведения дошкольного образования могут столкнуться с проблемой кадров. Такая методика обучения обязывает лишь иметь в штате заведения учителя государственного языка и логопеда. Остальные педагоги ведут почти весь процесс обучения на родном языке детей, проводя лишь несколько игр на государственном. Однако детей окружает двуязычие. Например, в детском учреждении Линнамяэ детей окружает информация на стенах на двух языках. Дети с малого возраста привыкают к буквам разного алфавита. При этой методике у детей не будет довольно отлично развит билингвизм, но ребенок будет иметь элементарный запас слов, который поможет ему и социализироваться в различных жизненных обстоятельствах.

Родители являются участниками образовательного процесса и от них зависит грамотность ребенка. При обеих методиках от них требуется лишь одно – говорить на своем родном языке грамотно, познакомить со своей культурой, литературой и другими ценностями. Если родной язык родителей у каждого свой, значит каждый говорит с ребенком лишь на одном языке, а между собой – на доступном для обоих родителей. Если в семье есть носитель государственного языка ребенку будет значительно легче выучить его и говорить без акцентов в произношении.

Учитывая то, что почти в каждой стране в школе от ребенка будут ожидать минимум базового уровня знания языка, необходимо давать детям знания, начиная с дошкольного возраста. Выбор методики – за государством, но даже в такой стране как

Эстония не просто справляться педагогам и руководству в заведениях с методикой языкового погружения. Найти учителей со свободным владением государственного языка на территории, где жители говорят на другом языке сложно и педагоги, понимая это, ожидают от государства дополнительную материальную поддержку.

Заведения дошкольного образования Эстонской Республики контролируются и поддерживаются высшими законодательными структурами. В частности, Таллиннский департамент часто внедряет много разных проектов с инновационными технологиями [1]. Например, одним из таких действующих проектов является «Eesti keele õppe pilotprojek» («Большой проект по изучению эстонского языка»). Благодаря проекту, заведения образования с обеими методиками сотрудничают между собой по разным случаям: показ театра, проведения конкурсов по рассказу стихов (одна методика изучения – один конкурс) [2]. И кроме того, что дошкольные учреждения обмениваются опытом, у детей происходит формирование социализации: дети посещают другие учреждения, знакомятся с окружающим миром, другим интерьером, условиями, учатся общаться между собой, а также со взрослыми, которых ранее не встречали. Весь этот процесс – стимул разговаривать на государственном языке, который объединяет разные группы населения в нацию. Ведь если «закрывать детей в комнате» и учить их разговаривать на государственном языке, то педагог получит не самый лучший результат.

При обеих методиках педагоги используют часто такую организационную форму детей как экскурсия. Причем экскурсия не только на природу, а также в зоопарк, музеи, выставки, библиотеки и в другие учреждения, в которых дети видят вывески и слышат государственный язык. Данная форма организации детей в странах Восточной Европы, особенно в Украине и Российской Федерации используется редко в связи с большим количеством документации, которую должен со-

брать педагог, что в свою очередь препятствует более быстрому формированию мировоззрения, получению знаний об окружающем Мире, а также развитию речи у ребенка.

Особое внимание среди всех методов обучения государственному языку занимает конкурс. За вознаграждение, за победу или просто уделенное внимание, поздравление у ребенка будет больше мотивации выучить стих, песню или показать сценку на государственном языке. Ведь если у ребенка нет мотивации и желания, то научить его речи будет значительно сложнее. Ко всему же ребенок должен осознавать, что этот язык ему пригодится в будущем. Конкурсы может организовывать и садик, который имеет больше 6 групп, но все же детям будет интересней организация на уровне района или города. Городские власти могут на праздники организовывать это как развлечения, например, в парке аттракционов в праздник День отца.

В каком бы учреждении ребенок не учился для его развития и социализации большую роль играет окружение. Все что ребенок сможет в будущем прочесть, (а сейчас всего лишь узнает буквы на вывесках) влияет на его формирование речи, а также отношение к тому или иному языку. Большую часть жизни ребенок проживает за пределами дошкольного учреждения и именно в это время важную роль играет социум и его речь, отношение людей друг к другу и толерантность, отношение власти страны к разным языкам, а особенно к государственному.

**Выводы.** Методика языкового погружения в государственный язык и методика обучения государственному языку, как второму имеют свои плюсы и минусы. И именно методика обучения государственному языку, как второму более подходит для развивающихся стран. Но результат владения ребенком государственным языком будет зависеть не только от выбора методики, но и от организации работы местными властями учреждений дошкольного образования.



**References:**

1. Jürissar L. Õppides suureks.Aastaraamat 2017/17.Õppeaastal / L. Jürissar, K. Väär.– Tallinn: Tallinna Haridusamet, 2017.– 342 c.
2. Eesti keele õppe pilootprojekt [Електронний ресурс] – Источник: URL: <https://www.facebook.com/groups/708124942730750/>.

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## **PROPOSING A NUMBER OF MEASURES TO DEVELOP SKILLS FOR PROBLEMS FOR CHILDREN 5–6 AGING THROUGH ACTIVITIES**

**Abstract:** Developing problem-solving skills for 5–6-year-olds is an important task of early childhood education to make it easier for children to adapt to life. The development of a number of skills development measures for children 5–6 through familiarization with math should be based on the nature of the problem solving process and the real-life problem solving of children. Developing and coordinating the use of flexible groups of problem-solving skills development for 5–6-year-olds through the adoption of math skills such as: Creating problem-solving ability for children through acquaintance with math; Organize your child to practice problem solving; Organizing a child’s problem-solving assessment helps to improve the problem solving skills of the child.

**Keywords:** problem solving skills, math skills, 5–6 year olds.

### **1. Set the problem**

With the development trend of society today, people have many problems such as environmental issues, economic issues, school issues, social culture ... To face the difficult challenges that The human society needs to have the capacity to handle and deal well with those issues. Especially for children of preschool age, there is not much social knowledge as well as life experiences to solve the problems of social evils such as school violence, addiction game, violence children, child abduction scams ... and other negative effects outside the society affect the development of children’s personality. To be “young” you need to be protected and nurtured for a relatively long time and have to learn everything: eating, learning, talking in social relationships under the guidance of adults [1]. Therefore, the development of skills needed for children has become a pressing need for society, including problem solving skills that help children identify and find solutions to complex social problems. the best way to improve your personality.

Mathematical acquaintance occupies a significant place in the life of a child in kindergarten, which

not only contributes to early childhood mathematical symbols, cognitive skills but also Developing children’s life skills including problem-solving skills.

On the other hand, in modern society, children of preschool age are so overwhelmed by their families and society that they are too passive to change their lives. Therefore, children are not flexible, quick to handle the problems encountered in learning and in life. In addition, pre-school education does not focus on developing problem-solving skills for children aged 5 to 6 years and has not developed effective measures to develop problem-solving skills for children. through the familiarity with math. Therefore, research to develop problem-solving skills for children aged 5 to 6 through the use of math skills is essential to help children adapt to the environment. new – primary school.

### **2. Some basic concepts**

#### **2.1. Concept of skill**

Discussing the concept of skill has many researchers have given different opinions. For example: Skill is the ability to apply the knowledge acquired in a certain field into reality, or Tran Trong

Thuy said: Skill is the technical side of action, people grasp Action model is skillful and actionable [5] ... From the concept of diversity of skills of psychologists and educators we conceive that: Skill is human competence can do the right thing in practice based on the knowledge, knowledge, experience that self accumulated.

## 2.2. Problem solving skills

### \* Problem

In life we encounter many phenomena, situations, conflicts, questions ... which we still call the problem. For example, environmental issues, social evils, school issues, health issues ... need to be answered or solved. According to the Vietnamese dictionary, “the problem is to be considered, researched and resolved” [6]. We think that “the problem is a conflict situation that requires the subject to use his or her knowledge to effectively deal with it.”

### \* Problem solving

According to Stepphan Krulik, 1980: “Problem solving is the process by which an individual uses the knowledge, skills and knowledge available to meet the unfamiliar situations encountered” [4]. Problem solving is a process where many actions take place at different levels of thought to select the optimal solution to achieve certain outcomes.

### \* Ability problem solving

Problem solving is the ability to perform multiple actions that take place at different levels of thinking to select the optimal solution to achieve certain outcomes.

## 3. Familiarize yourself with the math and its role in developing problem solving skills.

### \* Familiarization with math in preschool

Familiarization with mathematics plays a significant role in the life of preschool children, which not only contributes to the formation of early mathematical symbols (number, size, shape, space orientation, cognitive skills, and cognitive skills, but also develops life skills that include problem solving skills.

Familiarity with math plays an important role in the development of cognitive development, intellectual development in particular and personality of

children in general, and further contributes to the formation of new premises for learning activities. The process of forming elementary mathematical symbols for preschool children performs the following basic tasks:

- Provide your child with initial knowledge about the set, the number, size, shape, space and time it takes in the child around.

- Form the child with a number of cognitive skills such as quantitative skills, size comparison, counting skills, measurement skills, computing skills, and learning skills.

- Helps to understand some mathematical terms.

- Develop the excitement and ability to recognize the development of logical and linguistic thinking for children [3].

\* *The role of math literacy in developing problem solving skills for children 5–6 years old.*

Familiarity with math is one of the positive cognitive development activities in the child. In the process of participating in this activity, the child’s thinking is always stimulated by questions, situations, experiments. The teacher sets out to solve the cognitive task that maximizes the ability to become familiar with children’s math. On the other hand, when dealing with situations posed in the activity of acquaintance with math help children’s thinking flexibility, flexibility and can be used to solve problems in practice. The role of mathematical acquaintance in shaping and developing problem solving skills for children aged 5–6 years is as follows:

- Help children think and choose solutions to solve the cognitive task that teachers set out in the content of activities to familiarize with math.

- The teacher instructs the child to find a way to solve the problem.

- The result of the familiarity with math is always clear and concrete, expressed by specific products, so children can test, evaluate results by visual method

## 4. Measures to develop problem solving skills for children aged 5–6 through familiarization with math

**Measurement group 1: Forming problem-solving ability for children through familiarization with math**

**Remedy 1: Problem arises through the placement of the learning environment with the math**

\* **Purpose:** Create opportunities for children to identify many problems in their child's early learning activities through their own environment.

\* **Meaning:** The activity environment includes the objects children need to interact with in their math activities. In a familiar environment, young people will have the opportunity to develop their ability to detect and solve problems. If the teacher knows how to organize the environment to "work" the child, it raises issues that the child will discover and solve, this ability of the child will be enhanced.

\* **How to proceed:**

*Step 1:* Expecting activities to get acquainted with math can take place in the environment

Teachers rely on the observation of the environment and daily activities of the child to analyze and visualize, thereby anticipating some environmentally-friendly activities for the child to carry out in the process. work.

*Step 2:* Think about possible problems in your child's math work

Teachers need to be creative, based on their own experience and ability to visualize the problems children face and will be solved in the process of acquiring knowledge of their math. Teachers should think about the possible situations, goals, and goals that need to be addressed and how to deal with them.

*Step 3:* Arranging the familiar environment with the math facilitates the intended problem.

Teachers need to reposition their positions, the state of objects, toys, objects used by the child in the activity for the purpose of the situation, including objects that give rise to problems and objects. if so. She can also create new items and materials so she does not know how to use them, but she will use them when appropriate.

*For example:* During daylight hours (artistic angles) according to the teacher's day plan to arrange

the pre-cut to form the house, the teacher can make a problem through the layout of the environment. Act as follows:

*Step 1:* Anticipating activities with the math can occur, as follows:

Children must choose the square, rectangular, triangular paper ... to form a house, fence, grass, animals ... stickers on paper background to decorate the house.

*Step 2:* Think about possible problems.

– It is difficult for parents to stick the house if there are not enough blocks

– When decorating plants, animals around the nursery will be difficult to arrange their position accordingly.

*Step 3:* The environmental layout raises the problem.

– The teacher prepares these pictures on paper for appropriate cutting or placement of pre-cut pictures at the corner of the sale so that the children buy the sticker on the house.

– Teachers cut a variety of plants, animals, different sizes put in toy pens to choose the appropriate shape to paste into his paintings.

\* **Conditions of application:**

– The prepared environment must be safe with the child.

– Materials that are easy to find, easy to make and save.

– Teachers have the ability to explore, to create problems in the environment of the children.

**Measure 2: Create an opportunity for the child to actively identify the problem through observational interaction, suggestive questions, and task assignment.**

\* **Purpose:** Organize activities to observe mathematical signs and mathematical relationships that incorporate open-ended questions and task assignments for children to identify problems when observing, when implementing Assigned and assisted children in difficulty in the process of understanding and identifying problems.

**\* Meaning:** In the children’s activities in general and the familiarity with mathematics in particular, there are many problems, but only by the experience of children, the child has not discovered immediately, so the role of teachers at this time. It is the direction and support for the child in identifying observation problems that combine the suggestive question and task for the child, making it easier for the child to discover the problem and feel more confident in the process. recognize the problem.

**\* How to proceed:**

*Step 1:* Learn about the problem solving abilities, the math symbolic capital, and the cognitive experience of the child.

Teachers should understand the problem solving ability and knowledge of mathematical symbol formation in children in order to properly assess their abilities.

*Step 2:* Build problematic tasks that fit your child’s abilities

Based on the ability of the child, the teacher determines the tasks involved in forming the math symbol in order to develop a problem-solving ability for the child.

*Step 3:* Activate the observation and use the open question as the child performs the task.

Teachers should encourage their children to observe mathematical signs and mathematical relationships in assigned tasks and to develop appropriate questions for the child. Teachers should pay attention to asking open-ended questions. as:

- Your open question must be in open form so that the child has more thinking direction to solve the problem. Avoid asking questions that may lead to distraction or problem solving when the child is not actively thinking to solve.
- The question should be short, easy to understand, clear language suitable for the child and the question should focus on the problem.
- Teachers should encourage, create opportunities for children to ask questions, talk about their own thoughts and questions.

**\* Conditions of application:**

- Children are physically normal, coherent.
- Need to choose questions to stimulate the curiosity, research, creativity of children. Avoid abuse of questions, suggestions because it is easy to lead to dependency, dependence, passivity, waiting for the help of adults.

**Measurement group 2: *Organize your child to work out how to solve the problem.***

**Measure 1: Use learning games to help children solve problems posed in the game.**

**\* Purpose:** Help the child to practice problem solving in the form of fun play.

**\* Meaning:** Learning games are games with fixed rules developed by adults with different content, rules and play for children to play. It is derived from folk education, in the history of each adult nation they are creating games for children. In the learning game contains the elements of teaching. Adults use learning games to shape and develop cognitive activity for children [2]. The use of games to practice problem solving skills for children is not only suitable for the physiological and physiological characteristics of preschool children but also for the task of developing problem solving skills of children. is implemented in a natural and effective way.

**\* How to proceed:**

*Step 1:* Select or design learning games

Teachers learn, collect, or design learning games that form mathematical symbols for children. The task of playing a child in a game is to solve a problem.

*Step 2:* Organize the game

- The teacher introduces the child to the name of the game, the game and the rules of the game.
- Teachers assign tasks to children.
- The teacher is the person who guides, organizes and follows the child during the play, in time have corrected, correct the mistakes of children during play.

Example: Game “pick fruit”

- Preparation: A big tree to play (real tree or plastic); fruits (cut fruits on circular, rectangular,

rectangular, etc. plates with different colors and hanging on the tree); Clean, airy space; Time is a short song.

– Mission: Each team will “pick fruit” in the words of the song (the name is mentioned in the lyrics) and name the geometry that you picked, then bring the “fruit” found in the pits. of the team.

– How to organize play: Divide the class into two teams (each team of 8–10 children) stand in two rows, the teacher plays the music and asks the children to pick the fruit according to the music that his team heard and at the same time call the name with the picture. At the end of the game, the team can pick up many fruits and call the correct geometry (if not correctly called the picture name but find the correct fruit is not recognized), the team won.

**\* Conditions of application:**

– Teachers choose, design learning games that form mathematical symbols that fit the child’s abilities and achieve the goal of developing problem solving skills for children.

– The selected game must be attractive, attracting children to play.

– Coordinate individual play and group play.

– Kids learn how to play, play rules, have fun and need to join the game with her and you.

**Measure 2: Give your child practice in problem solving skills in daily life.**

**\* Purpose:**

– Educating young people who wish to do their own self-serving, independent, self-reliant, self-reliant job.

– Helps children to practice problem-solving skills in daily life to take advantage of everyday situations that are available and natural to children, giving them opportunities to practice self-discipline. Volunteering and reducing the pressure on teachers because they do not have to prepare many items. At the same time, practice problem solving skills in every new situation in life will happen to the child.

**\* How to proceed:**

*Step 1:* Teachers take advantage of situations that arise in their daily activities to motivate them to solve problems.

*Step 2:* The teacher selects new problem situations to stimulate the child to solve.

New situations are situations that have not happened to children. Teachers can create situations at times such as: eating, drinking, wearing, cleaning, learning, playing ...

Example: When eating: Count the chairs at the table? The number of seats is less than the number you eat, how do you rest are sitting in the chair for lunch?

When playing: “Give birth to you rabbit”, there are 8 cake how do 10 rabbits have birthday cake?

Preschoolers love to be complimented and set an example, so to actively solve problems in daily life, teachers need to motivate, praise and encourage their active participation in dealing with situations. out with children.

**\* Conditions of application:**

– Teachers must be able to observe well to detect and manipulate existing situations and create problematic, challenging environments for them to address.

– The child is excited, confident in solving problems in daily life.

**Measurement group 3: Organize the child’s evaluation of the problem-solving outcome**

**Measure 1: Create opportunities for the child to evaluate problem solving results in the course of the activity.**

**\* Purpose:** Form your child’s assessment skills and self-evaluation of problem-solving and your own.

**\* Meaning:** The ability of children to evaluate is limited and influenced by many factors, so the organization of children to self-examination, evaluation is the opportunity for children to practice and develop assessment skills. results of their activities. The evaluation process of children with the guidance and organization of the teacher should orient the children to the criteria to evaluate their performance but less influenced by emotional factors.

**\* How to proceed:**

*Step 1:* Organize testing and evaluation for children should be conducted regularly, during and after problem solving activities.

*Step 2:* Guide the child to understand the content

Children must evaluate the results and how to implement their solutions.

*Step 3:* Give your comments and comments.

*Step 4:* Encourage and encourage children in the process of examination and evaluation.

**\* Conditions of application:**

– Children are provided with an understanding of the evaluation criteria, the way the problem is and the product they perform.

– The teacher covered the children well, as a referee for children.

– The teacher encourages the child when he or she is struggling to get the job done because otherwise the child will refuse to think and solve the problem.

**Measure 2: Build a team to evaluate results in all activities of the child**

**\* Purpose:** Form and educate your child the ability to observe and evaluate the results of your problem solving in your daily activities in general and your familiarity with math.

**\* Significance:** The development of a group of children evaluates the activities that provide opportunities for the child to voluntarily take part in the assessment and gives the child a sense of responsibility and determination to fulfill his or her responsibilities. Children not only observe, evaluate you, learn from you but also support you when needed. This measure significantly enriches the assessment form in preschool.

**\* How to proceed:**

*Step 1:* Create a self-managed child group

Everyday, teachers select two self-managed groups, each group consisting of 3–5 children. Initially, the teacher establishes a self-governing group based on voluntary volunteering, then assigns the child so that all children in turn are placed in self-management.

*Step 2:* Assign self-management tasks to children

– Teachers assign self-management tasks to children in daily activities. For example, when preparing objects for purposeful learning, eating, sleeping, cleaning ...

– Ask the self-management team to find out who you have problems with, how to handle them and how.

– Teachers can use two forms to assign tasks to the self-management team: first, direct observation and reminding children, reporting to her and the class to hear the activity. Second, direct observation and handover of the child's observation form (a sign with a separate symbol for the child to easily identify the marker) and guide the child to use the form.

*Step 3:* Assess the work of the self-management team

– Teachers for self-management teams report results to class collectors.

– Teachers organize children to evaluate the results that the self-management team reports.

– Teacher evaluates, comments, motivates, compliments and draws experience for the team, selecting new self-management team.

**\* Conditions of application:**

– Children have the ability to observe, have an interest and sense of responsibility for the work assigned.

– Children are able to use the notation to take notes on the observation form.

– Teachers observe, support children when necessary.

**5. Conclusion.**

Problem-solving skills are one of the important skills necessary for young people. Familiarization with the math is an advantageous environment for developing this skill for large pre-school children.

– The research and development of problem-solving skills development for 5–6-year-olds through the familiarization with mathematics should be conducted in accordance with the problem-solving skills development process with coordination. Use a variety of measures in the organiza-

tion of awareness activities for children under the guidance of teachers.

– In order to develop problem-solving skills for children through familiarization with mathematics,

we need to use the measures that we have studied, and continue to research, to enrich, add other measures. to improve the efficiency of this educational process.

### **References:**

1. Dao Thanh Am (editors), Education Studies (volume1, 2), Hanoi National University Press,– Vietnam 2007.
2. Do Thi Minh Lien. Using learning games to create math symbols for preschool children. Education Publishing House – Vietnam 2009.
3. Do Thi Minh Lien. Method of forming elementary mathematical symbols for preschool children, Hanoi Pedagogic University Press,– Vietnam 2003.
4. Nguyen Huu Chau. Fundamentals of curriculum and teaching process. Education Publishing House – Vietnam 2005.
5. Phạm Minh Hạc (editors), Phạm Hoàng Gia, Trần Trọng Thủy, Nguyễn Quang Uẩn, Psychology, Vietnam Education Publishing House.
6. Hoàng Phe.– Vietnamese Dictionary – Social Sciences Publishing House, Hanoi,– Vietnam 1998.



## Section 3. History of Education

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### “RED CALENDAR”: FORMATION, IDEAS, MEANINGS

**Abstract:** The article deals with the history of the formation of the holiday calendar of the young Soviet state. The transformation of the theme, the search for new forms – all this contributed to the acquisition of new social experience. The analysis of the historical perspective allows to estimate the degree of influence of such events on the younger generation.

**Keyword:** holiday, “red calendar”, mass holiday, ideological component, anti-religious propaganda, ideological education.

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### «КРАСНЫЙ КАЛЕНДАРЬ»: СТАНОВЛЕНИЕ, ИДЕИ, СМЫСЛЫ

**Аннотация:** В статье рассматривается история становления праздничного календаря молодого советского государства. Трансформация тематики, поиск новых форм – всё это способствовало приобретению нового социального опыта. Анализ исторической перспективы формирования «красного календаря» позволяет оценить степень влияния подобных мероприятий на подрастающее поколение.

**Ключевые слова:** праздник, «Красный календарь», массовый праздник, идеологическая составляющая, антирелигиозная пропаганда, идеологическое воспитание.

Толкование праздника как антитезы будней с их трудами и заботами является традиционным и в русской науке восходит к одному из первых русских исследователей праздников И. Снегиреву (1837): «Самое слово *праздник* выражает *упразднение*, свободу от будничных трудов, соединенную с веселием и радостью» [9, с. 5].

В. И. Даль (1861) сообщает о традиционных российских праздниках: «Праздник – день, посвященный отдыху, не деловой, не рабочий; день, празднуемый по уставу церкви, или же по случаю и в память события гражданского, государственного или по местному обычаю, по случаю, относящемуся до местности, до лица» [1, с. 361].

Революция 1917 года кардинально переменяла календарь праздничных дат нашей страны. В течение первых лет своего существования молодая республика сформировала календарь праздничных дат, предложивший новые праздники, получила первоначальный опыт их проведения, заложила основы теоретической разработки и практического воплощения новых праздников.

На основе изученной литературы попробуем проследить трансформацию тематики праздников советской России.

Праздничный календарь, как и жизнь всего советского народа, регулировали Декреты молодого революционного правительства. Декретом о свободе совести, церковных и религиозных обществах от 20 января 1918 года церковь была отделена от государства, что автоматически предполагало изгнание церковных праздников из официальной жизни общества. Второй шаг позволил обозначить в государственных праздниках провозглашаемые революцией ценности. Декретом от 24 января 1918 года провозглашалось о введении в России григорианского календаря и общегосударственных праздников: 1 января – Новый год, 22 января – День памяти жертв 9 января 1905 года, 12 марта – День низвержения самодержавия, 18 марта – День Парижской коммуны, 1 мая – День I Интернационала, 7 ноября – День Пролетарской революции [4, с. 12]. Впоследствии часть из этих праздников осталась достоянием «красного календаря» (22 января, 9 января, 12 марта, 18 марта). Другая часть праздников составила основной костяк общественно-политических праздников и прочно вошла в жизнь советских людей почти на 70 лет. Это годовщины Октябрьской революции, День Международной солидарности трудящихся – 1 Мая, Международный женский день 8 марта, День Красной Армии 23 февраля.

Первое практическое воплощение в жизнь «красного календаря» пришлось на тревожное время военной интервенции и гражданской войны: многотысячными митингами отмечался

в 1918 году День международной солидарности 1 мая, а затем и первая октябрьская годовщина.

В 1919 году создается Секция массовых представлений. Первой большой работой Секции стала подготовка и празднование 1 мая 1920 года. Накануне Первомая вышел специальный выпуск журнала «Вестник театра», в центре которого статья А. В. Луначарского «О народных празднествах», подводящая некоторые итоги по созданию молодой республикой своих праздников, определяющая задачи и намечающая перспективы их развития. Первый Нарком просвещения А. В. Луначарский называет народные праздники «главным художественным порождением революции». Содержание такого праздника, по мнению автора, должно выражать его идейную сущность и отражать «надежды, проклятия и всякие другие эмоции народа» [2, с. 64]. А. В. Луначарский выделяет основные составляющие праздника: эмоциональный подъем и праздничное настроение народных масс, их желание откликнуться на празднуемое событие и, наконец, талантливые организаторы, способные внедриться в массы и руководить ими так, «чтобы естественный порыв масс, с одной стороны, и полный энтузиазма, насквозь искренний замысел руководителей, с другой, слились между собой» [2, с. 85].

Новые праздники требовали новых форм воплощения. Одной из таких форм становятся праздничные театрализованные представления, вовлекающие огромные массы участников. Так, в Петрограде 1 Мая 1920 года на площади Народных Зрелищ у портала бывшей Фондовой биржи состоялось массовое представление «Гимн освобождению труда» и там же, 19 июля 1920 года, – «К мировой коммуне; под открытым небом на Каменном острове была исполнена постановка «Блокада России»; в массовой инсценировке «Взятие Зимнего дворца» число участников превысило 6 тысяч человек, а число зрителей на Дворцовой площади – более 100 тысяч. В Москве на Красной площади 27 июня 1920 года проходит

«Всеобщий праздничный день рабочей и красноармейской демонстрации» [8, с. 10]. Митинги и манифестации сопровождали празднование Нового года, получившего своеобразное общественное звучание: «Так, работники красного Воздушного Флота, подводя итоги прошедшему 1920 г., решили 1 января 1921 года отметить субботником» [6, с. 20]. В комплекс мероприятий по перестройке массового сознания входили монументальная наглядно-зрелищная агитация, открытие мемориалов, отражающих идеи революции. Наряду с митингами, манифестациями, демонстрациями, массовыми театрализованными представлениями, карнавал был одной из форм первых революционных праздников.

В рамках антирелигиозной пропаганды вместо освященных церковью обрядов и праздников в жизнь вводятся новые «красные» обряды, например, там, где пасхальные дни совпадают с началом полевых работ, проводится «праздник первой борозды», вместо церковного обряда крещения проводятся «октябрины». В те же годы в разных областях и республиках страны возникли «красные свадьбы», «красные похороны» [3, с. 16]. И если еще в 1922 году кроме революционных праздников оставалось 8 церковных, считавшихся нерабочими днями, то в 1924 году решением Московского Совета рабочих депутатов вместо Крещения (19 января) и Благовещенья (7 апреля) устанавливаются два новых дня отдыха – 2 мая и 8 ноября.

Адриан Пиотровский, в 1920–30 годах занимавшийся организаторской культурной работой, утверждал, что в основе народных празднеств ле-

жит желание преодоления повседневности путем фантастической перевернутости общественных и природных отношений. В таком празднике бедняки становятся на место богачей, женщины – на место мужчин, а молодежь изображает стариков. «Вот этот переворот, этот сдвиг привычных отношений и есть то, что в первую очередь придает наивному карнавалу могучую силу жизнерадостности, пафос победы над буднями, легкость и блеск» [5, с. 181]. «Праздничную свободу», длящуюся непродолжительно, только во время праздника, А. Пиотровский называет «свободой от»: долгов, будничной суеты, неравенства. Карнавал, по Пиотровскому, несет в себе внутренние противоречия: утверждая негативную, отрицательную свободу, он говорит настоящую правду, прячась в то же время за шутовство, за маску ее скрывающую.

Немецкий историк Мальте Рольф, отмечает, что праздники «красного календаря», являясь фактором мощного воздействия тоталитарного государства, продвигали новую советскую идеологию в преимущественно неграмотную массу, прививали новую этику и эстетику советского человека, демонстрировали достижения нового строя [7, с. 439].

На основе изученной литературы можно сделать вывод:

- поиски 20–30х годов в области новой гражданской обрядности были большим социальным опытом,
- революционные праздники того времени четко отражали позицию государства в деле идеологического воспитания населения.

### Список литературы:

1. Даль В. И. Толковый словарь живого великорусского языка: Избранные статьи. Под ред. Л.В. Беловинского. – М.: ОЛМА Мелиа Групп, 2009. – 576 с.
2. Луначарский А. В. О народных празднествах / Театр и революция, – М.: Госиздат, 1924. – 484 с.
3. Нагиряк Е. В., Петрова В. Я., Раузен М. В. Новые обряды и праздники. – М., 1965. – 232 с.
4. Немиро О. В. В город пришел праздник. Из истории художественного оформления советских массовых празднеств. – Л., 1973. – 158 с.

5. Пиотровский Адриан. Театр. Кино. Жизнь. – Л., 1969. – 511 с.
6. Праздники, обряды, традиции. – 2-е изд., доп. и перераб / Сост. Б. Марьянов. – М., 1979. – 159 с.
7. Рольф М. Советские массовые праздники / М. Рольф; [пер. с нем. В.Т. Алтухова]. – М., 2009. – 439 с.
8. Руднев В. А. Советские праздники, обряды, ритуалы. – Л.: Лениздат – 208 с.
9. Снегирев И. М. Русские простонародные праздники и суеверные обряды. – М., 1837. – Вып. 1.

## Section 4. Information Technology and Education

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### TAKE THE ADVANTAGES OF THE INDUSTRIAL REVOLUTION 4.0, USE INFORMATION TECHNOLOGY FOR INNOVATING TEACHING METHODOLOGIES IN VIETNAM UNIVERSITY NOWADAYS

**Abstract:** To be established and developed in 1950s, information technology has integrated into social activities, created the large changes in life and human thinking. In education and training, information technology gives us not only the large chances but also the big challenges. In this writing paper, the writer wants to talk about the advantages of the industrial revolution 4.0 and about the trend of its in innovating teaching methodologies in Vietnam University nowadays.

**Keywords:** the advantages of the the industrial revolution 4.0, information technology, innovating teaching methodologies.

#### I. Introduction

In recent years, information technology has been one of the scientific area that has developed very fast. This scientific area assists many other trades in efficient development. In education and training, information technology boosts the open education, helps people to update information fast, to shorten the distance, to save the time, helps to innovate education and training. Moreover, it can help learners in their approach to self-study, solving of matters, organizing learning activities that are linked to realities in order to develop their abilities [3]. Understanding the position, role, importance and effectiveness of applying information technology in innovating teaching methodologies, recently, Universities in Vietnam have timely implemented lot of policies and solutions to take the advantages and effective application of information technology in improving teaching quality in the direction of development of learners' abilities [1].

#### 1. The advantages of the 4.0 industrial revolution in Vietnam

The industrial revolution 4.0 has had a enormous influences on many areas of social life, with the arrival of robots which have the artificial intelligence, intelligent robots can memorize and learn endlessly while the humans' abilities are usually limited. Therefore, high-tech and intelligent machinery will provide for humans with opportunities to change the structure of the production system; to increase productivity and labor efficiency; to reduce costs, to increase profits; improves the working environment; enhance the quality of life by taking advantage of the industrial revolution 4.0 [5].

In Vietnam, inheriting and developing the achievements of the industrial revolution 4.0 from the world that help us to save lots of research time. Instead, we can focus on developing those

achievements that are appropriate and effective for the development of the Nation [2].

The educating and training is also heavily influenced by the industrial revolution 4.0. In Vietnam, the fundamental and comprehensive reforming of educating and training towards the development of learners' abilities are indispensable and suitable with the trend of the times.

With the efforts to apply information technology in innovation teaching methodology. Now, the advantage the industrial revolution 4.0 is effectively applied into the design of lecturing by lecturers in Vietnam Universities. They can search information for research, improve professional knowledge and use materials to support the preparation of lectures. They can use the software to support to do the test, examination and to evaluate the results of students in order to help the work carried out scientifically and save a lot of time. Beside, they can use that advantages for forum, email, social networking ... aims at building electronic curriculum, electronic lecture, the more effective Website that becomes the linking between the teachers and students [4].

The material resources provided that helps teachers to innovate teaching methods confidently. By the development of various learning resources, the lecturers can apply positive teaching methods such as group discussions, reference guides, reading materials ... The lecturers also focus on the important contents, instruct students to study the content left. Therefore, they have more time to design the learning activities to promote the positiveness of students. In the classroom, students just comment, supplement and conclude the content of the lesson to help themselves to understand the important content and also improve self-study skills. In the method of checking and evaluating, with a variety of questions and exercises, such as short questions, tests, etc., teachers can easily assess the students' comprehension and at the same time students can self-assess their ability ...

## **2. The Importance of Applying the Advantage of Industrial Revolution 4.0 for Innovating Teaching Methods in Vietnam Universities**

Innovating Teaching Methods is the objective and necessary requirement for both short-term and long-term, is the significant factor to improve the quality of education and training in Vietnam.

Thus, the application of information technology in teaching is not only using the computer in the workings such as compiling and presenting the electronic lecture in the classroom, but also being the tools and supportive means in all activities related to training; related to research activities, lecturing; researching, exploring, exchanging experiences, orienting, guiding research, exploiting information resources, etc ... And higher level, with E-Learning, the teaching and learning activities are taken place all the time and everywhere. Students can listen to lecturers and can be guided to do assignments and then submit their works, finally present their ideas without direct contact with lecturers [5].

As soon as the term "industrial revolution 4.0" emerged, the leaders in universities recognized that it was an opportunity to apply more powerful information technology to improve the quality of teaching. the leaders in universities took the immediate chance to invite leading experts in the field of technology to talk about the industrial 4.0; assign the lectures to conduct research and to report in front of the lecturing members about the applying of industry 4.0 applying in teaching. From the initial background of technology and the trend of innovating educational methodologies, the trend of industry 4.0 helps Universities to establish e-learning system for students.

E-learning is a digital learning and studying process that allows lecturers, students and digital content to cooperate each other on the Internet anytime. The purpose is helping students to learn independently without direct contact with the instructors [5]. E-learning helps students to be active, to visualize the any subjects effectively and save time. By the application of information technology, both

lecturers and students can use computers to discuss the ideas, solve any problem timely, search the old knowledge easily. Digital exchanging used between lecturers and lecturers, students and students has become indispensable need.

### **3. Direction of taking advantage of the industrial revolution 4.0 in new teaching methodologies**

The industrial revolution of 4.0 has had a tremendous and wide influences on all aspects of social life. For academic education, the industry 4.0 will have the new advanced progress in educating and training, will change training objectives and traditional training forming by transferring and training the new knowledge [5]. Traditional classes including the disadvantages such as high costs, limited services, which are unfavorable for some body... will be replaced by online classes, virtual classes.

Learning spaces will also be more diverse, no more traditional labs or simulation rooms. Learners can be experienced with virtual-space learning which we can interact with real-world conditions by software and network system. The digital learning resources in real and virtual space are extremely rich, and the library space is no longer one stable place to be; the library can be exploited everywhere.

In many areas of the industrial revolution 4.0, information technology with the main elements are artificial intelligence (AI), Internet of Things (IoT) and Big Data that will have the strong influences on the teaching process. Recognizing the advantages that the industrial revolution 4.0 brings to educating and training, it is necessary to promote the achievements in the application of information technology into innovating in teaching methods. At the coming time, it is necessary to identify some directions to take advantage of the achievements efficiently to improve the quality of teaching in universities in Vietnam [5].

*Firstly*, To continue to grasp thoroughly and implement effectively the Resolution No. 29-NQ/TU dated on November 4<sup>th</sup>, 2013 of the Central Committee of Vietnamese Communist Party on the renewal of fundamental, comprehensive education

and training [2]. Particularly, innovating in teaching method is the advanced step and applying of information technology in teaching is essential. To unify the perception of the benefits, opportunities and challenges of the industrial revolution 4.0 to education and training. Thereby, to develop a practical actioning plan to take advantage of the Industrial revolution 4.0 in improving of teaching quality.

*Secondly*, To innovate teaching organization methodology. The form of teaching organization will be flexible of time, space and be suitable with practical conditions of virtual classroom. E-learning or use of cloud computing technology allows teachers to provide learning materials, interact with students and collect the results of the learning process continuously and flexibly.

In order to apply information technology effectively, not only the effort from teaching managers but also the nonstop attempt from student. It is necessary to guide students to be more active in applying information technology to study. In fact, with the diverse information environment, collaborative exchanges no longer to be limited by space and time, students have to be active to learn and accumulate knowledge with the teachers' guidance. They have to learn not only from the book, the materials but also from virtual classrooms, interactive contact, project group [1].

Besides, To Focus on guiding the skill of doing teamwork, self-study, to know how to look for documents, know how to receive and process information efficiently.

*Thirdly*, To invest in developing human resources and information infrastructure technology in order to adapt to the training demand.

Most of lecturers in Vietnam have a good knowledge about information technology. Therefore, they will be enhanced and improved on more information technology skills for making materials resources and skills of virtual technology, simulation, intelligent connectivity [5]. To continue to choose the best people in information technology and then train them at domestic places and abroad so that they can

receive and apply the new achievements of information technology in teaching in each university.

In addition to researching into Internet of Things, Virtual Reality (VR), Deep Learning, etc., lecturers will be encouraged to write software that serves for teaching. tools to teach. It is necessary to support the electronic educating activities for lecturers such as equipment synchronous, high-speed network, building experimental material resources, simulations, reference materials, model electronic lectures, electronic curriculum, teaching softwares, electronic forum.

*The fourth thing*, To establish a set of criteria for the lecturing which apply the technology. In order to improve the quality of information technology applications, it is necessary to establish a set of criteria for the lecturing which apply information technology well. A set of criteria includes the pedagogic lesson plans; the interactive lectures of learning through the use of software; the fluent use technologies of teaching; the role of the student in accessing and participating in the lecture; the ability to access online information to collect materials for teaching; the ability to communicate electronically with learners pre-lecturing, while-lecturing and post-lecturing.

*Finally*, To strengthen to cooperate in educating and training. The information is always a revolutionary field. In order to improve the effectiveness of teaching, to adapt quickly to the new demands of information activities at the new age, it is necessary

to exchange technologies and methods of applying information technology in teaching in universities and research institutes and to use information technology environment to link of training, transfer of technology [1]. With the large intelligent connection environment, it can be gathered the top people, good instructors for suitable training tasks.

## II. Conclusion

The trend of using technology in education and training activities is inevitable and more popular to promote the effectiveness of the teaching and learning process and to improve the quality of education and training. Taking advantage of the revolution 4.0, the application of information technology for teaching and learning aimed at the innovating of teaching methods is a difficult and long-term task, also has to be required a lot of infrastructure conditions and the abilities of the teaching staff. Therefore, it is needful to exploit the advantages of the revolution 4.0, and also limit the disadvantages of this revolution. Investing should be made in facilities, furniture; specially, strongly invest in the abilities of innovating teaching method of the teaching staff. Information technology is a tool which support for the teaching process effectively and quickly. Therefore, the human is a decisive factor in improving the quality of teaching. Moreover, the success of application of information technology and its benefits depends on the ability of university lecturers of information technology application in Vietnam.

## References:

1. Ministry of Education and Training – Project POHE2, Developing an Applied Career Oriented Degree Program, Hanoi Pedagogical University Publishing House. 2016.
2. Central Committee of Party, Term No. XI, Resolution No. 29-NQ/TW- 8<sup>th</sup> Central Conference Term XI on the fundamental, comprehensive renewal of education and training, Hanoi. 2013.
3. Pham Tat Dong. “Industry 4.0 and Educational Issues”, Conference on “Psychology, Education and implementing with Resolution No. 29/ NQ-TW on the fundamental, comprehensive renewal of education and training “. National University Publishing House, Hanoi. 2016.
4. Hong Hanh a young teacher enrich by teaching online, VnExpress. 2015.
5. Tran Thi Van Hoa, a solution to integrate with the industrial revolution 4.0 for universities, Dan Tri. 2016.



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## THE EFFECT OF TRADITIONAL TEACHING METHODS ON THE ACADEMIC PERFORMANCE OF DIGITALLY-SAVVY LEARNERS

**Abstract:** The use of computer technology in classroom settings has fascinated educators for decades that there is now an extensive body of literature dedicated to this area of educational research. One hypothesis shared by a majority of these studies is the effect of classroom digital technology on our new generation of learners. However, there is less emphasis on how traditional teaching methods affect the same set of learners. There is this unquestioned dogma that traditional teaching method in this digital world will inevitably be obsolete. This paper is an exploratory and preliminary study that compares the effect of minimising technology use on learners' learning experience and performance in the classroom.

**Keywords:** traditional learning method, educational technology, digital learners.

### Introduction

As a concept, Gauthier et al. define traditional teaching method as an "expository form of teaching, dominated by the teacher [that] relegates pupils to a passive role, reduces their classroom activity to the memorization of data to be recited to the teacher, and in particular, leads to the acquisition of skills of a lower taxonomic level" [1; 2]. However, in recent literature, the term is increasingly synonymous to forms of teaching that do not use recent forms of technology.

### Literature review

A review of the literature has unearthed various commentaries on traditional teaching method based on conjectures and observations. One study commented that, "traditional teaching methods and tools have clearly not had the same success as they had in the past [2, 196]. Another study commented that, "perhaps disaffected by traditional teaching methods and the competitive target culture of schools, many students have turned to social networking through the cluster of computer-based applications known as Web 2.0" [3, 213]. Still others believe that students have now developed preferences towards technology

[4], and that they "may not respond well to traditional teaching methods that focus mainly on lecture and textbook reading" [5, 189]. According to another commentary, "today's students have grown up with the speed of video games and MTV. They have little patience for lectures, step-by-step instruction of thinking, or traditional testing. Compared to their experiences with digital technology, they find traditional teaching methods dull" [6, 98]. This paper is thus an investigation on how technology-savvy learners perform in exclusively traditional classrooms compared to their peers in exclusively technologised classrooms.

### Method

This study involved two cohorts of pre-university college learners with an age range of 16–18 years old. Each cohort consisted of  $n = 17$  students ( $n = 34$  altogether). The sampling method was convenient sampling based on their participation as students of the same English course. The study incorporated two forms of data collection, viz. a quantitative online questionnaire and performance scores. The precursor online questionnaire profiled the learners' dispositions towards digital technology. The performance

scoring was conducted for 3 months. The delivery of learning and the exact content in the classrooms differed for both cohorts. The first cohort was exposed to only traditional methods of learning. This cohort, referred to as the TRAD cohort, was to voluntarily minimise their use of digital technology in the classroom. In contrast, the second cohort was predominantly exposed to the digital technologies and devices in the classroom. This cohort, referred to as the TECH group, was to voluntarily maximise their use of digital technology in the classroom.

### Results

The descriptive analysis of the online questionnaire revealed that all of the learners had *experience in using word editors* (n = 34), *immediate access to the internet* (n = 34), *owned an internet-enable phone device* (n = 34), and had *online accounts for e-mails* (n = 34) and *other social media platforms* (n = 34). Less homogeneous is learners use of specific internet features, notably on actively posting updates on Instagram (n = 22), playing online video games (n = 27), blogging (n = 2), uploading personal videos on YouTube (n = 3) and reading e-books on internet reading platforms (n = 11).

With regards to the use of digital technology in day-to-day learning, the questionnaire found that learners use the internet for school related research on either a *daily basis* (n = 25), or *every few days* (n = 9). When asked on their use of mobile phones exclusively in the classroom for learning prior to the study, the questionnaire found that (n = 31) frequently use them during lessons, with the most accessed features being online dictionaries (n = 13), Wikipedia (n = 11) and other specific websites (n = 11). In certain situations, the usage of digital technology in the learners' classrooms was limited, due in part to teachers' apprehension towards mobile phones and its misuse during lessons. Based on the above results, the questionnaire suggested that **the sample comprised of learners who indeed have dispositions towards using digital technology and that these dispositions in various extents have become syn-**

**onymous with their personal learning approach and habits.** Overall, there was no distinction between the two cohorts and this was confirmed via an unpaired t-test analysis.

On performance scores, a mock exam during the second month of this three-month study revealed that the TRAD group had an average grade of 64.1% while the TECH group had an average grade of 69.3%. Similarly, the coursework that was collected during the three months revealed that the TRAD group had an average score of 64.1% while the TECH group had an average score of 69.3%. The exact same scores within each group reflected on the possible consistency and transposability of learners' performance in both forms of assessment. Nevertheless, the TRAD group had lower grades and scores compared to the TECH group by a margin of 5.2% in both instances.

An analysis of each individual's performance in the three month period suggested that the TRAD cohort comprised of less capable learners, with an average score of 65% based on their first month performance. In contrast, the TECH cohort comprised of more capable learners, with an average score of 76.4% based on their first month performance. These values are then used as baseline scores. Thus, the method by which the use/ non-use of technology in the classroom was indicated is through observing the progress of learners' performance after three months. For the TRAD cohort, their average monthly scores while using traditional learning processes were 65%, 62.9% and 68.2% respectively with a differential of -2.1% and +3.2% from their baseline scores. In comparison, the TECH cohort average monthly scores were 76.4%, 67.1% and 69.4% respectively with a differential of -9.3% and -7% from their baseline scores.

### Conclusion

The results of the study above are indicative of the effects of traditional teaching methods on a group of learners having technological dispositions. Although the study followed a small sample of two cohorts that are bound to the context of their popu-

lation, the results are suggestive of traditional teaching methods may be as effective if not more effective than the use of educational technology. Based on the academic performance throughout the 3 months, it can be speculated that the continued use of traditional teaching methods may be a less daunting prospect when transitioning into a new learning environment, while introducing a new technology in the classroom (in this instance the VLE Canvas, the use of e-mail submissions, etc.) introduces with it a steep learning curve. This was evident in the dip in performance in the TECH group based on the negative differential values two and three months after using technology

that they were still trying to familiarise with. Ultimately, the use of predominantly traditional teaching methods in this three month duration did not, as suggested by the literature, stifle or become detrimental to the progress and performance of the technologically savvy learners. Rather, traditional teaching method has its own set of benefits that for reasons hitherto unknown paralleled the trend of improved academic performance. This study recommends the research to be further extended, particularly in addressing other external variables and in revisiting the comparison once learners in both cohorts are settled in their respective methods of learning.

### References:

1. Gauthier C., Dembélé M., Bossonnette S., and Richard M. Quality of teaching and quality of education: A review of research findings. UNESCO, 2005.
2. Srinivasan V., Butler-Purry K., and Pedersen S. Using video games to enhance learning in digital systems. Proceedings of the 2008. Conference on Future Play: Research, Play, Share, November 2008.– P. 196–199.
3. Williams P. Leading schools in the digital age: A clash of cultures. School leadership and management. 2008.–Volume 28.– No. 3.– P. 213–228.
4. Omarali P. S. P. Investigating the effectiveness of the ‘online learner profiling questionnaire’ in generating a profile of learners based on learner dispositions: a pilot study. Forging new pathways of research and innovation in open and distance learning, 2016.– P. 99–108.
5. Hicks S. D. Technology in today’s classroom: Are you a tech-savvy teacher?. The Clearing House: A Journal of Educational Strategies, Issues and Ideas, 2011.– Volume 84.– No. 5.– P. 188–191.
6. Black A., Gen Y. Who they are and how they learn. Educational Horizons. 2010.– Volume 88.– No. 2.– P. 92–101.

## Section 7. Training for Business and Economics

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### STRUCTURE OF PROFESSIONAL PREPARATION OF STUDENTS AND ENTREPRENEURS IN THE CONTEXT OF EUROPEAN INTEGRATION

**Abstract:** The article reveals structure of professional preparation of students and entrepreneurs in the context of European integration. An authorial term “structure” is given.

**Keywords:** professional competencies, Professional and Pedagogical Education of Entrepreneurs, special course, structure of professional preparation.

**Problem statement.** Modern professional education pays considerable attention to study of problems in methodology of preparing students for future professional activities. Taking into account purposeful preparation of economists of banking, as well as the formed psychological and pedagogical knowledge in the process of learning, the general structure and algorithm of a special seminar for each lesson is developed for the formation of knowledge, skills and abilities of students as future entrepreneurs. General theoretical structure includes components and an indicator system, as well as the methodology of professional training of economists and entrepreneurs.

**Literature review.** Structure of professional preparation was studied by I. Kovchyna [3], T. Andruchshenko [2], L. Stepanenko [4], V. Vasyutkin [5], V. Zinchenko [6] and others.

**The purpose of the article.** To reveal to structure of professional preparation of students and entrepreneurs in the context of European integration. To give an authorial definition of notion “structure”.

**Research results.** The European Community in 2009, within the framework of Europe 2020 concept,

has set common goals for the training of specialists. There are four of them, they are the following:

- to ensure lifelong learning and mobility to obtain education for all students;
- to improve significantly quality and effectiveness of entire educational process;
- to promote implementation of justice, social cohesion of individuals and support active public position of people;
- to strengthen inclusive creativity and innovation at all structural levels of education and training, including entrepreneurship [1].

All four goals correspond to directions of modern preparation of economists of banking to entrepreneurial activity. Paying attention to the fourth goal, we fulfill the program task of the European concept.

Therefore, the problem of theory and methodology of professional education of future banking professionals needs to be modernized according to the context of European integration. This induces an in-depth study of the stated scientific problems at the theoretical and applied levels.

By fulfilling the qualification requirements for preparation of future entrepreneurs and economists,

a graduate must conduct training in accordance with the requirements of specifics of subject, that is, a special seminar. Requirements also include:

- a) to promote the fulfillment of social tasks;
- b) the formation of competencies;
- c) the usage of innovative methods and means of classroom and non-classroom work, which ensure a high level of preparation of students in banking in the European format.

Therefore, we have identified three key parameters for professional preparation of students:

1. to motivate effectively future entrepreneurs in studying theory and methodology of professional education;

2. to provide students with information, to form competencies, necessary for them in the further work on the basis of transferred information, received knowledge, skills and abilities;

3. to develop professional education of a student as an entrepreneur's activity strategist according to human factors.

Since the future entrepreneur is, first and foremost, an owner of a company and a manager of human resources, during classroom and non-classroom studies we will create just pedagogical situations related to relations with human resources and teach them to cooperate professionally, using the existing knowledge on theory and methodology professional education.

This problem is highlighted in scientific works by T. Andrushenko, who considers education as high social and spiritual value. This is manifested in availability of education, while stimulating individual's choice according to his own needs [2].

Another scientist on theory and methodology of professional education I. Kovchyna believes that it is necessary to preserve intellectual potential of nation, improve teaching of disciplines, and recreate experience of foreign countries in Ukrainian higher education institutions [3, p. 32–34].

Supporting new teaching concepts L. Stepanenko argues that the contradiction, various conceptual

approaches in education direct process of knowledge to development of theory and methodology of professional education, to update the structure of student preparation [4, p. 76].

By definition, N. Vasyutkin, the enterprise is an independent economic entity. It is created for the production of products, works and services. The ultimate goal of the company is to meet public needs and profit. The basis of life of all people, main link of national economy are enterprises [5, p. 18].

To use professional education in entrepreneurial activity, to be able to organize the work of a team, to pick up a team, to manage a team without loss of both emotional and financial is a requirement of time.

In our opinion, professional and pedagogical competence of future economist and entrepreneur is an integrative complex, which is filled with knowledge about basic pedagogical methods and technologies, an ability to use existing knowledge for solving applied problems, skills in using pedagogical technologies, an ability to transfer pedagogical information to other employees in available form. All this is accumulating in shaping the readiness of future economists to entrepreneurial activity.

On the other hand, it is determined that system of preparation of students, future economists of banking to entrepreneurial activity includes motivational (reflects the attitude of the person to the professional activity), cognitive (includes theoretical and technological knowledge), professional and activity (includes skills, skills based on the results of the developed knowledge) components

Consequently, the structure of system of preparation of students and economists of banking to entrepreneurial activity consists of two parts – theoretical, methodological and technological and it covers the following elements:

- 1) intersubject connections; components of a specialist – an object of activity, functions, tasks for solving skills; activation of knowledge by means of psychological, methodological and managerial mechanisms; activation of activity, which includes motive,

purpose, means and results; components – motivational, cognitive, professional and pedagogical.

2) five levels of professional preparation – three theoretical and two practical; – explanatory, diagnostic, experimental, informational, projective, reflexive, activity;

3) approaches: innovative, systemic, competency;

4) special course “Professional and Pedagogical Education of Entrepreneurs”, which covers theoretical and practical lessons (lectures, seminars, individual and independent work, final control).

According to the object of our survey, we pay attention to issues related to structuring of the process of professional preparation of future economists of banking to entrepreneurial activity as one of components of the theory and methodology of professional education.

Under the structure is understood a certain number of interconnected elements, which has a stable unity and integrity, and all of them possess properties and laws that integrate with each other. *The structure lets to encompass the whole process of student preparation, which inherently integrity and specificity of substructural parts, the existence of interconnections between substructural parts, the integration of all parts, the beginning and final result of the structure, that are interconnected between each other by internal parts [au-*

*thor Yu. V. Klipa].* In theory and methodology of professional education, structure includes pedagogical conditions through which the professional preparation of student is realized.

Applying pedagogical conditions to educational process, as believes V. Zinchenko, they provide effective formation of professional orientation of students of economic specialties, namely: integration of educational material of fundamental economic disciplines with the content of entrepreneurial activity. Students and economists must have motivation to acquire professionally relevant knowledge and skills that will facilitate the process of preparing students for practical work of an economist of a modern enterprise [6, p. 70–79].

**Conclusions.** Analyzing sources on structuring of system of professional preparation, we can state the significance of such research.

Note, as a rule, there researchers are developing a model of professional preparation for students. It features a multitude of components and multi-vector design. The model is developed in the case of an experimental study from the first to the fifth year. Since our research is devoted to the professional preparation of students in the fourth year, we build a structure of professional preparation for economists and entrepreneurs, structuring of the pedagogical process.

### References:

1. Strategic framework – Education and Training 2020. Internet access: URL: [http://ec.europa.eu/education/policy/strategic-framework\\_en](http://ec.europa.eu/education/policy/strategic-framework_en)
2. Andrushchenko T. V. Natsionalne ta zahalnoliudske yak dominanta tsinnosti suchasnoi osvitoi polityky (yevropeyskyi kontekst). [National and whole people as a dominant of modern educational policy (european context)] Mulytversum. Filosofskyi almanakh. – 2015. – Vypusk 9–10 (147–148). – P. 120–121. Rezhym dostupu: file:///C:/Users/acer/Desktop/Andrushchenko T.V.pdf
3. Kovchyna I. M. Aktualizatsiia profesiinoi pidhotovky studentiv spetsialnosti «mizhnarodni vidnosyny. [Aktualization of professional preparation of students of foreign relations]. Novi kontseptsii vykladannia u svitli innovatsiinykh dosiahnen yevropeiskoi dydaktyky vyshchoi shkoly: Materialy Mizhnarodnoi naukovo-metodychnoi konferentsii 30–31 zhovtnia 2017 roku/ Ukl. S. M. Ivanenko, O. V. Kholodenko, K. M. Pavytska, O. H. Smolnikova – K.: NPU imeni M. P. Drahomanova, 2017. – 515 s.
4. Stepanenko L. M. Naukova robota yak forma pidhotovky maibutnikh psykholohiv. [Scientific work as a form of preparation of future psychologists] Novi kontseptsii vykladannia v svitli innovatsiinykh dosia-

hnen yevropeiskoi dydaktyky vyshchoi shkoly: Materialy Mizhnarodnoi naukovo-metodychnoi konferentsii 30–31zhovtnia 2017 roku/ Ukl. S. M. Ivanenko, O. V. Kholodenko, K. M. Pavytska, O. H. Smolnikova – K.: NPU imeni M. Drahomanova, 2017.– 515 s.

5. Vasiutkina Nataliia Volodymyrivna. Metodolohichni zasady upravlinnia stalym rozvytkom aviapid-priemstv: avtoref. dys.d-ra ekonom.nauk: 08.00.04 / Vasiutkina Nataliia Volodymyrivna; M-vo osvity i nauky Ukrainy, Nats. Avia. Un-t.– Kyiv, 2015.– 38 s.: il.– Bibliohr.: P. 31–35.
6. Zinchenko V. O. Stvorennia kompleksu pedahohichnykh umov dlia pidvyshchennia efektyvnosti formuvannia profesiinoi spriamovanosti [creation of the complex of pedagogical conditions to highten effectiveness of professional preparation] // Visn. Luhan. nats. ped. un-tu imeni Tarasa Shevchenka.– 2007.– No. 12.– Ch. 2.

## Section 8. Education in high school

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### **DEVELOPING COMPETITIVENESS OF FUTURE PROFESSIONALS OF MUNICIPAL ECONOMY AS A REQUIREMENT OF POTENTIAL EMPLOYERS**

**Abstract:** In the article on the basis of the literature analysis, the requirements of potential employers to the professionals of the municipal economy are considered. It is noted that for developing competitiveness, a scientific and methodical system composed of needs-motivation, cognitive-operational and reflexive-evaluative components should be introduced. The methods for developing the cognitive-operational component are described using the example of the discipline “Psychology”.

**Keywords:** competitiveness, professional training, competitive professional, professional of municipal economy, scientific and methodic system, cognitive-operational component.

Competitiveness of the future professionals as an integrated phenomenon is in focus of attention of scholars, educators, authors of the professional standards as well as potential employers. At the modern stage of the society development, readiness of a professional to operate in a competitive environment and the ability to secure a stable position in the labor market become essential.

The aim of the article is to substantiate competitiveness forming of future professionals of the municipal economy as a response to the demands of potential employers and represent the methods of developing the cognitive-operational component of the competitiveness using the example of the discipline “Psychology”.

The requirements of potential employers to the professionals of the economic profile are mentioned in the works of R. Kubanov, O. Posilkina, Yu. Bratishko, S. Viter [4; 5; 3]. R. Kubanov, in

particular, sets two levels of the requirements for economists: first, the requirements presented in various types of job descriptions for the employees of the economic profile (they actually reflect requirements for the activities of an economist) and in the sectoral standards of education, and secondly, the requirements of employers. According to the scientist, employers pay great attention to the ability of an economist to think strategically, to make fast and correct decisions; constantly evolve; be able to organize information and statistics; work with the computer and its devices. [4]. V. Semichenko advocates the effectiveness of the professional training of a competitive economist conducted on the basis of correction of the curriculum and the content of the disciplines. The researcher emphasizes that «the transformation of the content of professional training into the content of the discipline is a much more complicated process, since a qualitatively new, special system of



knowledge appear integrating the elements, which are still unknown» [6].

Investigating the requirements for the professionals in the field of economics in preparation for the activities in the agrarian sector, S. Viter focuses on the fact that students in the process of their training should be oriented on the current conditions of the market economy relations. Therefore, the organizers of their professional training should answer the question: what economic knowledge will be fundamental for the globalized economy. Generally, a future economist should be prepared for a rapid adaptation in the conditions of scientific and technological progress; for business activities on the basis of a private property, etc. [3]. It is also specified that the teacher should learn to teach the discipline in accordance with the modern developments in the science, « providing knowledge and skills of the methods and means of successful life-sustaining activities in those conditions that will be formed in Ukraine and Europe in the nearest future » [3, p. 142].

In this aspect, we join the point of view of M. Vachevsky about the use of principles and methods of marketing activities, which should assist training of the students for working in the conditions of the market economy. The students will realize the flexibility and interconnection of the process of professional training with restructuring of the economy and the employment of population, development of various forms of ownership and management in the process of production of competitive products or material goods with an orientation on the buyer's market [1].

In full agreement with the scholar, we determine useful for the competitiveness of future economists to emphasize both the regional needs of the labor market (specific vacancies for economists in specific regions, depending on the specialization of the enterprises of this region) and the requirements of users regarding the final product of production (competitiveness of the goods), the professional competence of an economist should be manifested in the analysis of these requirements and the effect on the restruc-

turing of production. In addition, important for a modern economist is involvement in socially significant projects, possibly, voluntary activities of an economic orientation. As for the correspondence of a professional economic training to the requirements of the labor market, the use of a competent approach becomes important, in particular, in cases when the future employer engages the training of a student and education becomes an especially significant activity for him/her. N. Veselovskaya believes that such education can not be «given», it is replenished only in the process of independent work of the student [2].

Understanding the integrity of the concept «competitiveness» allows us to focus on the development of specific components forming the content of the concept under study. These components are needs-motivation, cognitive-operational and reflexive-evaluative. The technology of forming the cognitive-operational component of the competitiveness of future professionals of the municipal economy is associated with a gradual introduction into the training program the disciplines, the content of which is adjusted with the development of competitiveness and a competitive environment. In order to conduct a pedagogical experiment, we identified the main disciplines, within which the system of competitiveness development of the future professional should be implemented. The main task of the first year of study is the development of the students' professional and communicative competences, in particular, a foreign language, as well as a basic knowledge of competition as a factor in the evolution of the society and personality.

Within the discipline «Psychology» the students' knowledge of the role of manipulation in professional activities was actualized. In particular, after the actualization of knowledge about verbal and non-verbal manipulations for future professionals, training was held on confronting manipulations in modern management and marketing. The training consisted of three stages: the introductory stage, which provided information on the training's purpose and guidelines as well as the forms of activities;

the main course, during which the students were involved in the interaction according to the defined task; the final phase, within which the results of the training were discussed. As the result, firstly, the students received knowledge of assertiveness as a quality that allows to show respect in communication to themselves and to a partner; and secondly, they mastered new skills performing the training task «A polite refusal», aimed at developing abilities to refuse a person in his/her request; thirdly, they discussed their own emotional state experienced by every communicant (both those who ask and those who refuse) in the process of refusal.

Considering the fact that it is important for a competitive professional to recognize the hidden motives of the partner and avoid manipulation, the students were engaged in the role game «The applicant», which had the goal to train the techniques of formulating open questions and identifying the hidden motives of the communicants during a job interview. The discipline «Psychology» continued the work on self-presentation, which started during the study of the discipline «Ukrainian language for professional purposes», with the aim to improve the employment experience. In particular, if in the process of Ukrainian and English language training future professionals of the municipal economy learned how to create a resume, which is effective for making a positive impression on a potential employer, studying Psychology, they discussed the psychological aspect of the process of employment and defined the rules of effective communication, namely, at the interviews.

To prepare students for an interview with the employer, they were taught to make up a plan of the interview. Thus, it was determined that the interview may consist of several stages, a successful passing of each phase means a permission for the applicant to start the next one. The first stage of the interview contains questions related to self-presentation of the applicant and determination of the level of his/her motivation. The students were instructed on the way they should speak about their

professional experience and its results. When the students are asked: “Why do you want to work at this company?” they should demonstrate their knowledge of the company’s main mission and activities, which requires a preliminary preparation including familiarization with the company’s website, studying advertising brochures, etc. It was noted that the question “Do you have advantages over other applicants?” reveals both the level of commitment of the applicant in the profession and the self-esteem. The students are guided in the way they should be ready to speak about their own achievements (those that can become competitive advantages over other applicants, e.g. awards, certificates of additional training, winning in contests, etc.). However, they are recommended not to talk about school achievements, since the employer may feel that the applicant has not come in full force after school.

The instructor mentions that answering the question “What are your strengths and weaknesses?” the applicants should present the qualities that helped them succeed, for example, the ability to freely establish contacts with other people. The students are not recommended to mention their disadvantages, at the same time they can indicate qualities that complicate their life but, in fact, appear to be advantages for the employer, e.g. workaholism, perfectionism, etc. The students are advised to prepare when answering the question “What do you expect from the career in a few years? As for the potential employer, your inability to plan the career will only indicate that you can be manipulated. A strong answer to the question “What salary would you like to receive? indicates that the applicant is aware of the labor market in a particular industry as well as the ability to adequately assess himself/herself. If the applicant does not want to talk about the money at the interview, this may be considered as an indication of his/her infantilism, not modesty. In Psychology classes, in particular, when studying the topic of cognitive processes, the students’ attention is drawn

to the fact that a future employer can use tasks for logical thinking as a kind of a test of the intellectual readiness of a future employee.

Preparation for the interview is not finished after studying the discipline «Psychology». Further work requires a preparation for specific professional questions that the employer can ask at the second stage of the interview. Such questions are explored within the discipline « Economics of the Enterprise».

Conclusions. Developing competitiveness of future professionals of the municipal economy should be implemented using a scientific and methodical system, which enables to form various components of this phenomenon. The cognitive-operational component is developed with the help of introduction to the disciplines of the curriculum the modules aimed at increasing the level of competitiveness of the students and readiness to work in a competitive environment.

### References:

1. Vachevskiy M. V., Madzigon V. M., Primachenko N. M. The fundamentals of economics / Miron Vachevskiy, Vasil Madzigon, Nataliya Primachenko. Teaching guide.– Kyiv.: Pedagogichna dumka, 2007.– 612 p.
2. Veselovskaya N. S. Competence approach in education as a basis for a training of a highly qualified professional.– Moscow.: Pedagogical Association of Russia, 2002.– 352 p.
3. Viter S. Requirements to the future professionals of the economic profile in preparation to work in agriculture / S. Viter // Youth and Market.– No. 6 (89), 2012.– P. 140–145.
4. Kubanov R. Requirements to the professional training of the professionals of economic specialties and their realization in the educational process of the higher educational establishment / R. Kubanov // Scientific bulletin of Melitopol state pedagogical university.– No. 2 (13), 2014.– P. 294–301.
5. Posylkina O. V. Researching the requirements of the employers to the applicants of manager on social responsibility of modern pharmaceutical enterprises / O. V. Posylkina, Yu. S. Bratishko // Management, economics and quality assurance in pharmacy.– No. 3 (47), 2016.– P. 38–44.
6. Semichenko V. A. The problems of motivation of human behavior and activities. A module course of psychology. The module “Personal orientation”: lectures, practical classes, tasks for the independent work.– Kyiv.: Millenium, 2004.– 521 p.

## Section 9. Physical Education

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### THE EFFECTS OF PLYOMETRIC ON MALE BASKETBALL PLAYERS

**Abstract:** This study aims to evaluate and compare the effects of the plyometric training method of force, in improving the ability of basketball players. In this study participated 20 basketball players of the “Partizani-basket” team participating in the Albanian Basketball Championship for adults (2017–18). Participating basketball players of this activity were made aware of the purpose of this study and the invitation to participate in it. They were involved in this study with their own desire. The team would be trained for 12 weeks, according to a defined physical fitness program for the preparatory period, focusing twice a week on plyometric exercises in addition to other elements of physical preparation as a whole. All the basketball players taken in this study were measured before and after the 12 week period of conditioning in the off season on vertical jump, long jump, and parameters associated with these tests. The data subjected to statistical processing using the IBM SPSS Statistics software 22 method. The overall team at the end of the preparation period had a significant improvement in propensity ( $p < 0.05$ ) in the vertical jump ( $< 14.3$  cm) on the longest ( $< 15.8$  cm). The results of this study showed that the effects of the plyometric training method of the force increased with significant indicators especially in the motors of ability performance in the basketball team of the “Partizani-basket” team.

**Keywords:** Basketball; Preparation Time (Conditioning); Plyometric Force Training Method; Conditioning Program; High Jump; Long Jump.

#### **Introduction**

The plyometric training of force training has now been recognized as one of the most effective and full-fledged improvement techniques in basketball, especially jumping in basketball and at the same time a significant component of most of the programs designed for physical condition. The plyo-

metric training method of the force (or often referred to as group exercise of muscle extension and muscle contraction) is often used during basketball training programs in preparatory period (off season) as an effective method for improving motor performance [1, 159; 2, 86].

Exercise of the force as a whole is also an important part of the training program during the preparatory period for basketball players with a background experience related to benefits that improve motor performance and undoubtedly reduces in any case injuries to basketball players [3, 123; 4, 47].

Use the exercises of the method of force plyometric, certainly not excluded, but instead combine them with force exercise in general, thinking that motor performance can be increased with a greater speed quite significant, than any other program performance [5, 219; 6, 170].

Exercise of the plyometric method affects the "first" neuromuscular system (pro-perceptive). Force training requirements by the increased activation of nerve pathways, certainly increase the neuromuscular system's readiness to a higher degree [7, 117–118].

The use of not only plyometric exercises, but the whole of strength exercises to jointly involved and also in training, is an adequate strategy for the organization of the training process, which has positive effects, high, in the training practice, especially in management as rationally as her time. Also, the growing demand and popularity that have gained strength conditioning programs to basketball players have undoubtedly increased besides the potential for health benefits [8, –66] and these efficient methods for increasing winner performance, athletes in general and basketball players especially.

### **Hypothesis of this study**

Was that in addition to other methods of developing strength of the coordinated plyometric method of force development education will undoubtedly result in an improvement of the skills of the great sinful performance motors.

### **Methodology**

In this study participated 20 basketball players of the "Partizan" team participating in the Albanian Basketball Championship for adults, who would be trained according to a defined physical condition program, for 12 weeks of the preparatory period,

focusing twice on week to develop mainly plyometric exercises for intensity, combined with other strength training exercises for other parts of the body like arms, backs, belly, or the latter known as "core" muscles. So during the entire preparation period, it would work to increase physical condition for the performance of the basketball game in the championship. Changes in all indicators (variables) were measured before and after 12 weeks of the training program.

Participating subjects are chosen randomly and at their own discretion. The team received in this study had these parameters: no. = 20; age  $21.5 + 0.8$ , weight  $85.6 + 2.6$  kg; stature  $188.9 + 1.4$  cm; BMI  $23.9 + 0.6$  and a basketball training experience of  $8.4 + 3.5$  years.

Team participants received in this study experienced a relatively significant training ground, but often trained in the preparation period the overall training programs rather than focusing to increase indicators of the parameters to the lowest motor skills such as jumping, speed, flexibility, etc.

Basketball participants of this team were informed about the nature as this project and had been approached by them prior to the start of the study. Undoubtedly the team's technical team staff was informed and prepared about the study procedures, possible risks if the exercise requirements and the potential benefits of this study project were neglected. All the training sessions were held in the respective halls in Tirana. ("Partizan-basket" team often at its own club hall and planned to develop force in the S.U.T. Fitness hall).

**Procedures:** Five tests were selected for assessment of physical fitness performance. Such tests are often used in assessing the performance of athletes. Test procedures; for vertical high jump, long jump,  $4 \times 15$  m (from high starts running) and flexibility test. All these can be found [9, 181] and 20 m sprint.

The training program used in this study was compiled by the author of this research study and is based on the following publications [10, 45].

The team was training 2 times a week with alternatives between days for 12 consecutive weeks. From the technical staff basketball players were recognized through demonstrations with the technical, rational requirements of each exercise during the study period. The training was largely supervised, directed and regulated the nature of the training intensity stimuli in accordance with the duty for training. Extension of training sessions for this purpose was 90 minutes for the team received in this study.

Basketball players participating in the training sessions developed for 15 minutes the heating period, which consisted of a moderate intensity with a complex of dynamic exercises that were different from each other. Recent surveys suggest that this may be more effective (ie heating) with the heating protocol for growth, intensification of power performance (ie force-speed ratio). After the good warm-up period with the team began with the planned plyometric exercises, divided into several repeating sets in optimal ratios with the time of rest (approximately 30–35 minutes). After that they continued the program with other elements of the force (approximately 35–40 minutes). Each training session ended with exercises for cooling, mostly stretching exercises, which lasted (approximately 5–10 minutes) [11, 60–64].

During the execution of this planned program, no change or permission of any other program offered by other entities is allowed.

**Protocol warm-up:** The warm-up protocol consists of 10–15 minutes with moderate intensity in the fast walking (jogging) followed by a moderate intensity not, but slightly higher dynamic exercises. They include, course “skip” Running with knees up, themrat touch the buttocks, “karaoke” side ploy during jogging, hiking precipitate front, side kick (from both sides and shot to step forward or back (the withdrawal) Descriptions details of stretching exercises can be found at the national basketball training association – NBCCA (2007).

The game with basketball elements for physical preparation in this period throughout the field requires carefulness because often this type of exercise adds monotony and above all exerts a chronic stress on the skeleton muscle system [12,248].

**Plyometric training:** The plyometric training program consists of three levels. The participants perform 10 plyometric exercises from the first to the fourth week (1 set of 10 reps per week 1–2 and 12 reps per week 3–4) and 12 plyometric exercises during the fifth to the tenth week (1 set of 10 Repeat for the week 5–6 and 8 reps per week 7–8). For the third level, 12 exercises have been re-selected for the week 9–12 (1 set of 8 repetitions per week 9–10 and 6 repetitions per week 11–12). The exercises were according to the protocols outlined by: [13,36].

Table 1.– Overview of plyometric training program

<b>Week 1–4</b> <b>1 Set / 12–10 repeats</b>	<b>Week 5–8</b> <b>Set 1 / 10–8 repeats</b>	<b>Week 9–12</b> <b>Set 1 / 8–6 repeats</b>
<b>1</b>	<b>2</b>	<b>3</b>
1 – “Skip” running fast	1 – Dance and kick with the heels and behinds	1 – Jump gallop with great step forward
2 – “Pogo” (Jump-up, knee to chest)	2 – Jump-up	2 – Alternate jump 1 foot on the box
3 – “Rocket jump”	3 – Jump with open legs	3 – Fast jump
4 – Jump with ball / medicine over and above	4 – Jump scissors	4 – Jump of depth
5 – Jump with turn 360° over medicine ball.	5 – Jump alternating legs	5 – Jump with pod “box” (CR) multiple answer

<b>1</b>	<b>2</b>	<b>3</b>
6 – Jump with MB from the chest	6 – Throwing MB with jump and turn	6 – MB throwing from down-up-behind
7 – Fast jump with two legs	7 – MB before-up running to catch it	7 – Jump and throwing MB over heads and await (CR)
8 – Progressive fast jump on both legs	8 – Jump-up, knee to chest and sprint	8 – Jump and throwing MB below hand
9 – Jump side	9 – Jump with one leg and kick	9 – Jump side
10 – Jump side – sprint	10 – Jump with one leg and progressive kick	10 – Box – skip
	11 – Jump with one leg diagonal	11 – Box – bound
	12 – Jump with one leg side	12 – Jump of depth

MB = Medicine ball CR = Consecutive repeats

**Statistical analysis:** The Statistic Analysis was performed using the IBM SPSS Statistics software 22. The statistical techniques used include: general descriptive analysis, evaluation of data distribution, and search hypothesis search through differential techniques between two measurements, using t-test. T-test was used to identify the effect of the training plan applied to the “Partizani-basket” team during the preparatory training period. The size of the study selection includes 20 basketball players aged  $18 \pm 0.8$ .

### Results

In the table below are given the performance data motors before the start of the training process of the preparatory period and at the end with the team “Partizani basket”. Participating basketball players in this study carried out almost 100% of the training sessions, with the consent of each of them, without causing any injury during the realization of this training process. In general, the data obtained from the variables after the realization of the program of study result positive, with the increase of initial values, though not significant and significant in some cases. Let’s take them apart and discuss each one of them.

Table 2.– Motor performance results before and after the training period.

No.	Tests	IT	FT	Benefits	
				Absolute	%
1.	High jump vertical (cm.)	$41.9 \pm 6.8$	$56.2 \pm 5.7$	14.3 *	34.1%
2.	Long jump (cm.)	$240.1 \pm 10.1$	$255.9 \pm 12.3$	15.8 *	6.6%
3.	Running 20 m. sprint (sec.)	$3.29 \pm 0.2$	$3.21 \pm 0.1$	- 0.08	2.4%
4.	Running 4 × 15 m. (sec.)	$12.94 \pm 0.6$	$12.41 \pm 0.5$	- 0.53	4.1%
5.	Throwing MB (cm.)	$793.7 \pm 50.7$	$873.7 \pm 66$	80.0 *	10.1%
6.	From sit trunk flexibility (cm.)	$5.65 \pm 4.1$	$12.85 \pm 3.9$	7.20 *	127.4%

Note: \* Significant improvements compared to the measurement before the start of the training process

### Discussion

The hypothesis that a combined plyometric training program results in relatively significant improvements in motor performance abilities. Basket-

ball players in this study have made a significant improvement to strength in the upper and lower body parts, which are seen as essential requirements for basketball performance [14, 53]. Vertical jump in

the first measurement to the second comparison results in a significant increase in the average absolute benefit of 14.3 cm, which in percentage 34%. These results are a testimony of previous achievements demonstrated by: [15, 86–87].

We can also say that we have a more even increased improvement in the long-jump distance of 15.8 cm from basketball, which in percentage 6.6% achieved the same results [12, 248].

Regarding the speed of 20 m (sprint test), study showed that plyometric and strength training improved the performance of basketball players taken in this study and concretely with the following results: – 0.08 sec. which in the percentage results 2.4% [16, 221–222].

The performance of the 4x15m running start-up test consists speed of start frequency with non-stop, as well as change in direction and apparent detectability in the level of muscle strength and flexibility we have pointed out, the plyometric training and strength training program increases the muscular power and flexibility, which is related to success in the 4x15m agility test. As we have pointed out, the plyometric training and strength training program increases the muscular power and flexibility, which is related to success in the 4 × 15 m agility test [17, 74].

Basketball players in this study have a significant improvement in throwing medicine balls by 80 cm and in percentage 10.1%. The same can be said for the flexibility test, where the improvement is significant of 7.20 cm with a profit of 127.4%. Thus, the strengths and power of the basketball players have already been proved, after applying, merging or joining some types of training of the force in the content of the training sessions in basketball [18, 230–231]. This reality is similar to previous studies which suggest that regular participation in a well force development program will obviously result in some levels of motor performance improvement [17, 76].

Correct and fully supervised application of training programs, far from overload (extra) in the skeleton muscles of the athletes, proves and eliminates injury during the training process. Therefore, contemporary of condition programs, which include plyometric and force training, and which are applied correctly and rigorously, have proven to be an effective way to avoid or reduce injuries to athletes [19, 113; 20, 60].

### **Conclusions**

- The discovery, the selection of the most efficient ways to increase the performance of athletes, in our case of basketball players, is the first and very important step in the progress of the training process.

- The results of this study are a potential added value in the application of the plyometric method and force program for the preparatory period, with the sole purpose of maximizing the performance of basketball players in the game.

- Design of the training program by us in combination with plyometric method with that of forces, provides an efficient time in modalities, rational movements in training, associated with significant improvements in motor performance in the following matches.

- On this basis and the preliminary achievements of this study, conclude that the effects of plyometric training and strength are often synergistic in the impact of engine performance increase on basketball players rather than the effects of using a single strength training program.

- The offered study also confirms that it is important to achieve significant statistical progress in providing performance motors, from the training program applied to basketball players in our case.

- Finally, we think that combined plyometric training with that force is a very useful tool for innovative trainers in the field of strength training, as well as contributing to other timely efficient training.



### References:

1. Matavulj D., Kukolj M., Ugarković J., Tihanyi J., & Jarić S. "Effects of plyometric training on jumping performance in junior basketball players"; *Journal of Sports Medicine and Physical Fitness*, 11, 2001.– 159 p.
2. Radcliffe J. C., & Farentinos R. C. "High-powered plyometric" Champaign, IL: Human Kinetics, 3, 1999.– 86 p.
3. Fleck S.J., & Kraemer W.J. "Designing resistance training programs" – 3<sup>rd</sup> edition. Champaign; Human Kinetics. 7, 2004.– 123 p.
4. Price R. G. "The Ultimate Guide to Weight Training for Basketball"; – 4<sup>th</sup> edition. Cleveland, OH: Price World Enterprises. 2006.– 47 p.
5. Faigenbaum A. D., McFarland J. E., Keiper F. B., Tevlin W., Ratamess N. A., Kang J., & Hoffman J. R. "Effects of a short-term plyometric and resistance training program on fitness performance in boys age 12 to 15 years"; *Journal of Sport Science and Medicine*; 6, 2007.– 219 p.
6. Fatouros I. G., Jamurtas A. Z., Leontsini D., Kyriakos T., Aggelousis N., Kostopoulos N., & Buckenmeyer P. "Evaluation of plyometric exercise training, weight training, and their combination on vertical jump performance and leg strength"; *Journal of Strength and Conditioning Research*; 14, 2000.– 70 p.
7. Linnamo V., Newton R., Hakkinen K., Komi P., Davie A., McGuigan M., & Triplett–McBride T. "Neuromuscular responses to explosive and heavy resistance loading"; *Journal of Electromyography and Kinesiology*; 10, 2000.– P. 117–118.
8. Faigenbaum A. D., & Westcott W.L. "Youth strength training: program for health, fitness and sport". Champaign, IL; Human Kinetics. 5, 2009.– 66 p.
9. Safrit M. "Complete guide to youth fitness testing"; Champaign, IL: Human Kinetics. 1, 1995.– 181 p.
10. Faigenbaum A. D., & Westcott W.L. "Strength and power for young athletes"; Champaign, IL: Human Kinetics. 4, 2000.– 45 p.
11. Cometti G. Cometti D. "La pliometria" (origini, teorie, allenamento) 2a edizione italiana, Capitolo V: I TEST; Test di Bosco; 2009.– P. 60–64.
12. Faigenbaum A. D., Milliken L. A., Moulton L., & Westcott W.L. "Early muscular fitness adaptations in children in response to two different resistance training regimens"; *Pediatric Exercise Science*; 17, 2005.– 248 p.
13. Radcliffe J. C., & Farentinos R. C. "High-powered plyometric" Champaign, IL: Human Kinetics. 2, 1999.– 36 p.
14. Fulton K. T. "Off-season strength training for basketball"; *National Strength & Conditioning Association Journal*, 14, 1992.– 53 p.
15. Adams K., O'Shea J.P., O'Shea K.L., & Climstein M. "The effect of six weeks of squat, plyometric and squat-plyometric training on power production"; *Journal of Strength and Conditioning Research*; 6, 1992.– P. 86–87.
16. Kotzamanidis C. "Effect of plyometric training on running performance and vertical jumping in prepubertal boys"; *Journal of Strength and Conditioning Research*; 20, 2006.– P. 221–222.
17. National Basketball Conditioning Coaches Association "Complete conditioning for basketball"; Champaign, IL: Human Kinetics. 11, 2007.– P. 19, 74–76.
18. Vamvakoudis E., Vrabas I., Galazoulas C., Stefanidis P., Metaxas T., & Mandroukas K. "Effects of basketball training on maximal oxygen uptake, muscle strength, and joint mobility in young basketball players"; *Journal of Strength and Conditioning Research*; 21, 2007.– P. 230–231.
19. Koutures C. G., & Gregory A. J.M. "Injuries in youth basketball"; *Pediatric*; 25, 2010.– 113 p.
20. Myer G., Ford K., Palumbo J., & Hewitt T. "Neuromuscular training improves performance and lower extremity biomechanics in female athletes"; *Journal of Strength and Conditioning Research*, 12, 2005.– 60 p.

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## **MAXIMUM OXYGEN CONSUMPTION DURING THE PREPARATORY PERIOD OF BASKETBALL**

**Abstract:** In this study we present the progress of the development team VO<sub>2</sub>max “Partizan-Basket” during the preparatory period of the training process. A total of 20 basketball players involved in this study, with their desire. The data presented are related to some anthropometric measurements (age, weight, height, body mass index, BMI etc.) and measurements of Vo<sub>2</sub>max on the ergo-metric “Monarch” bicycle. The mean age was 21.0 years old with SD ± 3.55; weight 85.6 kg with SD ± 11.6; height 188.9 cm with SD ± 6.21; body mass percentage 85.65% with SD ± 11.06 and BMI 23.95 with SD ± 3.03 As for maximum oxygen consumption (Vo<sub>2</sub>max) at the first measurement with an average of 3.98 l/min and with SD ± 0.65 and (Vo<sub>2</sub> max) 47.45 ml/kg / min and SD ± 6.96. These data were taken at the beginning of the training process of the preparatory period to determine the level of current sports situation, which from the data obtained was relatively low. For this purpose, a genuine program for increasing the level of Vo<sub>2</sub>max was designed, where basketball players would train for 12 weeks with 2 training sessions per week, with 45–60 minutes with aerobic fitness exercises and mostly running in nature. At the end of the period, a significant improvement was observed from the first measurement to the second and mainly to the Vo<sub>2</sub>max indicators and specifically: Vo<sub>2</sub>max in l/min with an average of 4.34 l/min and an improvement margin of 0.35 l/min. Vo<sub>2</sub>max in ml/kg/min with an average of 52.15 ml/kg / min and improvement margin 4.69 ml/kg / min. Undoubtedly, the above changes with an increasing improvement in aerobic level indicators constitute a sound basis for the continuity of physical training (engines) in general and other types of training component components in particular, which together converge to the performance of game and consequently on the technical results of the games.

**Keywords:** max oxygen consumption (Vo<sub>2</sub>max), basketball, players, anthropometric data.

### **Introduction**

For several years, different authors have conducted studies on measuring the maximum level of oxygen consumption (Vo<sub>2</sub>max) in various sports (in our case in basketball). Such authors and the first ones would be mentioned (Robinson 1939),

later followed by Astrand 1960. In further studies the data were enriched and showed correlations and correlations with other indicators such as age, sex, inheritance, training experience, refinement of efficient training methods, and so on [2, 69].

The absolute level of maximal aerobic capacity calculated by body weight had a significant increase from the measured measurement of 4.69 ml.kg/min or expressed as a percentage increase of 2.44%. If these levels of Vo<sub>2</sub>max are compared to the elite basketball players, they are low. There are a few reasons for this: selecting the protocol of the exercises that has already changed; sometimes the subjects have been uninformed about the exercises they would perform for this purpose, their methodology, etc. It is also possible to mention when these studies have been conducted in selected subjects and in high-profile aerobic type sports such as marathon athletes, long distance swimming, etc. [3, 124].

In the presented study, the goal has been to increase the oxygen consumption level (O<sup>2</sup>) from the first to the second measurement to provide a fundamental for the continuation of physical preparation at optimal levels, an ever-increasing performance level of the game in the national basketball competition. We would also add that aerobic power and related variables not only showed a good level of health screening for the basketball players, but also the required increase in the performance level of the engines, especially Vo<sub>2</sub>max, of the force and its types, but also speed and coordination skills (agility) etc. [4, 141–142].

### Methodology

The tested subjects are 20 basketball players of the “Partizani-Basket” adult team who involved with their approval and desire. They underwent train-

ing sessions for the development of Vo<sub>2</sub>max for 12 weeks with 2 times a week from 45 to 60 minutes per session, mainly spending 3.5 to 5 km of running with a timing and time change. The preliminary test of the beginning of the training process for this purpose was ergo-metric bicycles (Astrand protocol) with respective indicators for each basketball player. Data on age, weight, height, body mass percentage, BMI, etc. were also obtained as well as the maximum oxygen consumption (Vo<sub>2</sub>max) measured on the ergometric “Monarch” bicycle, with Astrand test protocol in the S.U.T. (N.I.CH.S.) laboratory. The total workload test (t w m/min) was 9 min, test time 6 min, heart rate average at 126.4(bpm) and heart rate increase 198.6(bpm) and the average of the correlation factor Vo<sub>2</sub>max 1.02 and an average of the maximum oxygen consumption (Vo<sub>2</sub>max) of 3.98 (l/min) and the average of Vo<sub>2</sub>max of 47.45 ml.kg/min. Consequently, Vo<sub>2</sub>max was calculated according to the [1, 81–82] test by measuring oxygen consumption below maximum and accompanied by heart rate. At the end of the preparatory period, a significant improvement was observed from the first measurement to the second and mainly to the Vo<sub>2</sub>max indicators and specifically: Vo<sub>2</sub>max in l/min with an average of 4.34 l/min and an improvement margin of 0.35 l/min. Vo<sub>2</sub>max in ml/kg/min with an average of 52.15 ml/kg/min and improvement margin 4.69 ml/kg/min. In summary, these indicators can be seen in the following table:

Table 1. – Comparisons of Vo<sub>2</sub>max markets. (l/min and ml/kg/min) from the first measurement to the second

Nr	Measurements	Average Vo <sub>2</sub> max (l/min)	Standart Deviation	Error Standart Average	Average Vo <sub>2</sub> max (ml/kg/min)	Standart Deviation	Error Standart Average
1.	M. I	3.987	0.488	0.10	47.459	6.964	1.557
2.	M. II	4.345*	0.659	0.14	52.154*	7.226	1.615
3.	Difference	0.358	0.171	0.04	4.695*	0.262	0.058

### Results

The mean age was 21.0 years old with SD ± 3.55; weight 85.6 kg with SD ± 11.6; height 188.9 cm with SD ± 6.21; body mass percentage 85.65% with

SD ± 11.06 and BMI 23.95 with SD ± 3.03. In terms of maximum oxygen consumption (Vo<sub>2</sub>max. L/min) in the first measurement with an average of 3.98 l/min and with SD ± 0.65 and (Vo<sub>2</sub>max.ml / kg / min)

47.45 ml/kg/min with SD  $\pm$  6.96. These data relate to the start of the training process of the preparatory period to determine the current level of sports status, which from the data obtained was relatively low. For this purpose, a genuine program for raising the level of Vo2max was designed, where basketball players would train for 12 weeks with 2 training sessions per week, with 45–60 minutes with aerobic fitness exercises and mostly running in nature, swimming, etc. [5, 271]. At the end of the period, a significant improvement was observed from the first measurement to the second and mainly to the Vo2max indicators and specifically:

Vo2max in l/min with an average of 4.34 l/min and an improvement margin of 0.35 l/min. Vo2max in ml/kg/min with an average of 52.15 ml/kg/min and improvement margin 4.69 ml/kg/min. Undoubtedly, the above changes with an increasing improvement in aerobic level indicators constitute a sound basis for the continuity of physical performance (motors) in general and other types of training components in particular, which together converge to the performance of game and consequently on the technical results of the sensations. The dependent t-test results are briefly reflected in the following:

Table 2. – Results of t-test indicators

Nr	Measur.	t-test				
		Average change	Standart Deviation	Error Standart Average		
1.	Vo <sub>2max</sub> (l/min)	0.35750*	0.52990	0.11849		
2.	Vo <sub>2max</sub> (ml/kg//min)	4.69550*	4.14035	0.92581		
Nr	Measur.	t-test				
		Confidence Interval 95%		t	Df.	Sig (2-tailed)
		Lower limit	Upper limit			
1.	Vo <sub>2max</sub> (l/min)	0.10950	0.60550	3.017	19	0.007
2.	Vo <sub>2max</sub> (ml/kg//min)	2.75776	6.63324	5.072	19	0.000

The t-test results for the dependent variable “Vo<sub>2max</sub>” (l/min) showed a statistically significant difference between the first and second measurements. We conclude that a higher average was detected in the second measurement and the t-test results show that a statistically significant difference ( $p > 0.05$ ) is tested between measurements for the dependent variable. The t-test results for the dependent variable “Vo<sub>2max</sub>” (ml.kg/min) showed a statistically significant difference between the first and the second measurements. Consequently, a higher average was detected in the second measurement and t-test results show that a statistically significant difference ( $p > 0.05$ ) is tested between measurements for the dependent variable. We conclude that improvement is only for Vo2max.

### Discussion

If we refer to the first measurement at the beginning of the training process with respect to Vo2max,

basketball players “Partizan-Basket” resulted in low values from a mean of Vo2max to (l/min) 3.98 with standard deviation (SD) 48 of standard error of average of 0.1. The low scores also match the technical results of matches in the classification of national teams, where “Partizani-basket” was ranked of the end at last season. For this purpose, a detailed curriculum was developed where physical preparation or physical fitness, and in particular the improvement of Vo2max as the starting point for any physical activity, or rather a competitive national team, developed in the pre-start of this new competition. Thus, a 12-week training session of 2 times a week with a duration of 45–60 minutes was held to develop and improve Vo2max. After the completion of the second measurements, which resulted positive, partly in the anthropometric data and with significant values of Vo2max (l/min) with an aver-

age of 4.34 l/min and the standard deviation mean (SD) 0.65 and standard error of 1.47. If we take the  $\text{Vo}_{2\text{max}}$  (ml.kg/min) it resulted 52.15 ml/kg/min, with a mean improvement of 4.69 ml.kg/min from the first measurement or the average of 0.35 l/min the difference from the first measurement to the second. These results created the belief that on their basis could be performed on the other performance indicators motors, strength, skill, speed, etc. Related to the other components of the training process such as technical, tactical, psychological etc.

### Conclusions

–  $\text{Vo}_{2\text{max}}$  is the basis of any physical activity on which a successful sports performance can be established, as our study showed in this team that had increased results;

–  $\text{Vo}_{2\text{max}}$  provides a progress in addressing the training loads without causing trauma and providing a good health which was observed in the conduct of systematic frequency of training sessions [6, 188];

– Also, besides aerobic training, it is necessary to co-ordinate work at the same time for the education and development of other motor performance skills such as strength, speed, agility and stretching.

### References:

1. Astrand P. O., Aerobic work capacity in men and women with special reference to age. *Acta Physiologica Scandinavica (Suppl)* 1960.– P. 81–82.
2. Astrand P. O., & Rodahl K. *Textbook of Work Physiology. In Evaluation of Physical Work Capacity on the Basis of Tests.* McGraw-Hill Co. New York; 1977.– 69 p.
3. Baechle T. R., Earle R. W. *Essentials of Strength Training and Conditioning.* 3<sup>rd</sup> ed. NSCA (US). Champaign, IL: Human Kinetics; – v. 6. 2008.– 124 p.
4. Boulay M. R., Simoneau J. A., Lortie G., Bouchard C. Monitoring high-intensity endurance exercise with heart rate and thresholds. *Medicine of Science in Sports and Exercise.* – v. 3, 29, 1997.– P. 141–142.
5. Helgerud J., Hoydal K., Wang E., et al. Aerobic high-intensity intervals improve  $\text{Vo}_{2\text{max}}$  more than moderate training. *Medicine and Science in Sports and Exercise;* 39, 2007.– 271 p.
6. Kraemer W.J., Ratamess N. A. Fundamentals of resistance training: Progression and exercise prescription. *Medicine and Science in Sports and Exercise;* 36, 2004.– 188 p.

## Section 10. School Education

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### **PEER VICTIMIZATION AND THE PSYCHOSOCIAL ADJUSTMENT OF ADOLESCENTS IN IKOT EKPENE FEDERAL CONSTITUENCY OF NIGERIA**

#### **Abstract.**

**Aims:** This study sought to adduce the influence of peer victimization on the psychosocial adjustment of adolescents through an assessment of the differences in the psychosocial adjustment of adolescents with minimal and those with high levels of exposure to the selected variables of peer victimisation in Ikot Ekpene Federal Constituency of Akwa Ibom State.

**Study design:** The ex-post facto survey design was employed for the study.

**Population of Study:** The target population comprised 6,191 Senior Secondary Two students in the 22 Public Secondary Schools in Ikot Ekpene Federal Constituency of Akwa Ibom State, Nigeria.

**Methodology:** A randomised sample of 691 students was selected for data collection. Data collection was done using the Peer Victimization and Psychosocial Adjustment Questionnaire (PVPAQ) designed by the researchers. The reliability of the instrument was 79. The instrument was personally administered by the researcher. This was to ensure independent response of the respondents. Item weighted mean were computed and used in answering the research questions while Independent t-test statistics was used to analyse the null hypotheses.

**Results:** The influence of sexual harassment on the psychosocial adjustment of adolescents was not statistically significant even though the sample that were minimally exposed to sexual harassment recorded a slightly higher adjustment mean score ( $P = .05$ ;  $n_1$  103;  $n_2$  588;  $df$  690;  $m_1$  37.71;  $m_2$  38.26;  $sd_1$  4.29;  $sd_2$  5.03;  $t$ -calc .79;  $t$ -crit 1.9). Adolescents who reported high exposure to physical abuse had a lower psychosocial adjustment mean score compared with adolescents with minimal exposure to physical abuse. This observed difference was found to be statistically significant too ( $P = .05$ ;  $n_1$  410;  $n_2$  281;  $df$  690;  $m_1$  29.21;  $m_2$  37.86;  $sd_1$  4.31;  $sd_2$  2.83;  $t$ -calc 5.95;  $t$ -crit 1.9). The influence of

verbal aggression was also statistically significant ( $P = .05$ ;  $n_1$  197;  $n_2$  494;  $df$  690;  $m_1$  29.34,  $m_2$  38.72,  $sd_1$  4.30,  $sd_2$  3.83,  $t$ -calc 3.75,  $t$ -crit 1.9).

**Conclusion:** Peer victimization in the form of sexual harassment, physical abuse and verbal aggression make the learning environment threatening and therefore non-conducive for the psychosocial adjustment of adolescents.

**Keywords:** Peer group, Peer victimization; Educational Psychology; School Counselling.

## 1. Introduction

Traditionally, peer victimization is identified mainly on the physical acts of aggression like kicking, punching and slapping. Bettencourt [1], in defining peer victimisation operationally, subsumes such relational aspects of abuse as gossip, rumour mongering, name calling, teasing, verbal threats, verbal assault and gender discrimination aimed at harming the social reputation of the victim. Therefore, peer victimization embodies both the overt (physical) and the covert (verbal or relational) aspects of aggressive acts which according to Olweus [2] occur overtime and reflects an imbalance of power between perpetrator and victim. Peer victimization has negative outcomes such as low self-esteem, low school engagement, school avoidance, lower school achievement, depression, loneliness and even suicide attempts. Those who cannot develop social skills are easy target as well as victims of victimization apart from being physically weak and compliant with little or no resistance.

According to Reynolds and Fletcher-Janzen [3], psychosocial adjustment refers to social and emotional functioning, the way a person relates and interacts with others. It shows how humans act in their social environments in the best and consistent interest. This according to Stosny [4] can be achieved through:

1. Approach – appreciation through love;
2. Avoid – devaluation through rejection;
3. Attack – destruction through hatred.

The tendency towards adjustment is the tendency towards self-actualization. Adjustment in psychology is the behavioural process by which humans and other animals maintain equilibrium among their

various needs or between their needs and the obstacles of their environments. A sequence of adjustment begins when a need is felt and ends when it is satisfied. Hungry people are stimulated to need food and when they eat, the stimulating condition is reduced which leads to the adjustment. To this end, an adolescent will likely develop behavioural problems if he is not helped to satisfy his deficiency by the significant people around him and left entirely to his own devices with no one to interact with. Conversely, if his problems are solved and his basic needs sufficiently gratified, he devotes himself to learning and enjoying self-fulfilling experiences. In support of this premise, Okonkwo [5] stated that adolescents' abilities and talents can manifest if the home and society provide sufficient growth factors to enable them transit smoothly into adulthood.

However, adolescents are always enthusiastic about graduating into secondary schools and are eager to gain more freedom and adventure. Most of them later discover that what they experience falls short of their expectations. To them, the new environment becomes uncomfortable and insecure. They have also been seen recently, to express some negative traits like depression, anxiety, poor emotional adjustment as well as isolation from public gatherings. This may be as a result of peer victimization. One of the topical issues on news articles is victimization in secondary schools where adolescents are victimized sexually, physically and verbally by fellow peers [6].

The various cases of sexual assaults against peers have become a global concern [7]. To students, it has become a norm or what they call school life. The persistent sexual advances they suffer from their fellow peers may not be noticeable by the teachers and even

parents due to the fact that the victims may not want to raise alarm. In most cases, teachers may be indifferent and may lack the capacity to exert their own influence on the situation [6]. However, it makes the environment intimidating, hostile and unsafe for learning. Many students have been seen to stay away from school, skip classes, participate less in class activities, record low grades among other deviant behaviours. Sexual victimization puts them at greater risks for anti-social behaviours [8].

Physical abuse involves those acts of violence meant to inflict injury on fellow peers because of the imbalance of power between the two parties. Comer [9] stated that schools in Colorado and California have been reported to record students' killings of their fellow students as well as inflicting injuries on them. In the Nigerian situation, it goes beyond school violence and involves siblings and relatives fighting in the streets, which is a serious social problem. Some disciplinary measures have been taken in most schools in the form of punishment or suspension of those caught with weapons in schools. Some school authorities expel those associated with severe cases of victimization. Yet, so many students go home with bruises, inflicted on them by their peers.

Verbal aggression embodies rumours, gossips and discrimination among peers. It is another act of aggression that does not necessarily inflict injury but causes emotional harm on the victims. The evidence is not obvious but the effects are as dangerous as physical abuse. Recently, there has been an attempt to discourage the concept of deviancy in Nigerian secondary schools through the introduction of Civic Education in Nigerian school curriculum in order to teach the students good morals. However, the misconduct still persists.

Howell [10] stated that victimized children experience real suffering that can interfere with their social, emotional development and academic performance. For those forms of victimization which are obvious, it will be very devastating for a parent to see a child come from school with bruises or scars on the body.

A caring parent will investigate to know the cause of the problem. Also, it takes a sensitive parent to notice that the child has not been in good mood. A proper follow-up will revive the child to a happy mood. The absence of it increases the chances of depression.

### **1.1. Purpose of the Study**

This study sought to adduce the influence of peer victimization on the psychosocial adjustment of adolescents through an assessment of the differences in the psychosocial adjustment of adolescents with minimal and those with high levels of exposure to the selected variables of peer victimisation. Specifically, the study sought to examine:

1. The difference in the psychosocial adjustment of adolescents with high exposure to sexual harassment and those with minimal exposure to sexual harassment.
2. The difference in the psychosocial adjustment of adolescents with high exposure to physical abuse and those with minimal exposure to physical abuse.
3. The difference in the psychosocial adjustment of adolescents with high exposure to verbal aggression and those with minimal exposure to verbal aggression.

### **1.2. Research Questions**

1. How do the psychosocial adjustment mean-scores of adolescents with high exposure to sexual harassment differ from that of adolescents with minimal exposure to sexual harassment?
2. How do the psychosocial adjustment mean-scores of adolescents with high exposure to physical abuse differ from that of adolescents with minimal exposure to physical abuse?
3. How do the psychosocial adjustment mean-scores of adolescents with high exposure to verbal aggression differ from that of adolescents with minimal exposure to verbal aggression?

### **1.3. Null Hypotheses**

1. There is no significant difference in the psychosocial adjustment mean-scores of adolescents with high exposure to sexual harassment and those with minimal exposure to sexual harassment.



2. There is no significant difference in the psychosocial adjustment mean-scores of adolescents with high exposure to physical abuse and those with minimal exposure to physical abuse.

3. There is no significant difference in the psychosocial adjustment mean-scores of adolescents with high exposure to verbal aggression and those with minimal exposure to verbal aggression.

#### **1.4. Review of Literature**

Sesar, Živčić-Bécirević and Sesar [11] determined the prevalence and inter-correlation of different forms of childhood maltreatment and psychological problems in adolescents in Western Herzegovina Canton. A sample of 458 third-grade high school students between age 15 and 20 were drawn. The result of the study showed that 77% were emotionally abused, 52% physically abused, 30% neglected, 20% witnessed family violence and 13% of girls and 21% of boys were sexually abused before the age of 14.

McMaster, Connolly, Pepler and Craig [12] conducted a study to identify sexual harassment in early adolescence. Youths from Grades 6–8 (N = 1.213) enrolled in seven elementary middle schools in a large south-central Canadian city were asked to report on their sexual harassment behaviours with same and cross-gender peers; their pubertal development and the gender composition of their peer network. A developmental contextual model was adopted to examine the possibility that this behaviour develops during the late elementary and middle school years and is linked to the biological and social changes that occurred at the time of study. Available data indicated that peer to peer social harassment is prevalent in high school and it is associated with psychosocial problems for both victims and perpetrators. The result revealed that cross-gender harassment was distinct from same-gender harassment, increased in frequency from Grade 6 to Grade 8 and was linked to pubertal maturation and participation in mixed-gender peer groups.

Elliot, Cunningham, Meadow, Colangelo and Gross [13] studied the connection between physical abuse and social isolation. Using data from the Na-

tional Youth Survey, a measure of self-perceived social isolation was constructed indicating the extent to which respondents feel detached from their friends and from school. Those who had experienced violence were predicted to be more isolated than those who did not. Explanation was provided in terms of damage to attachment skills, social competence and self-esteem as a result of being a victim of abuse. Males were more socially isolated than females and Hispanics more than Whites. Children with involved parents were less socially isolated and those whose parents experienced normlessness were more socially isolated. Children who recently experienced a stressful event or were from riskier neighbourhoods were more isolated.

Nwankwo [14] investigated the relationship between Child Abuse and Social Adjustments of public primary school pupils in Abia State. A sample of 1075 pupils, were drawn from primary five pupils in the public primary schools in the state for 2009/2010 academic session. The data collected from the study were analysed using Pearson Product Moment Correlation (PPMC) and the regression analysis. The major findings of the study were that emotional abuse and temperament significantly relate. Sexual abuse and social interaction did not relate significantly.

## **2. Methodology**

### **2.1. Design**

The researcher used a descriptive survey design in order to be able to describe the differences in the dependent variables based on the grouping (independent) variables and lend a basis for deduction of the existent influence or contributions of the independent variable (peer victimization) to the dependent variable (psychosocial adjustment of adolescents). This is in line with Bassey [15] who stated that descriptive survey design is done for the purpose of finding, describing and interpreting “what is” and not discovering new facts since the observation is devoid of any manipulation.

### **2.2. Population and Sample**

The target population of this study was 6,191 Senior Secondary Two (SS2) students in the 22 Public

Secondary Schools in Ikot Ekpene Federal Constituency. From this population, a randomised sample of 691 students was selected for data collection.

### 2.3. Instrumentation:

The Peer Victimization and Psychosocial Adjustment Questionnaire (PVPAQ) designed by the researchers, was used for the study. Section A of the questionnaire collected demographic data of respondents while section B collected data on the influence of peer victimization on psychosocial adjustment on a four-point scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) which were scored 4, 3, 2, and 1 respectively for positive items. The reliability of the instrument was .79.

### 2.4. Method of Data Collection and Analysis

The researchers conducted the survey in person to ensure the sample selection and data collection procedure were properly carried out in order that the data gathered for the study may have greater validity. Thus, the respondents were assured of confidentiality and allowed sufficient time to complete the questionnaire. Item weighted mean was used to answer research questions while Independent t-test was used to analyse the hypotheses.

## 3. Results

### 3.1. Sexual Harassment and Adolescents' Psychosocial Adjustment

Table 1. – Analysis of sexual harassment and adolescents' psychosocial adjustment

Dependent Variable	Sexual Harassment	N	X	%	SD	t-Calc	t-Crit
Psychosocial Adjustment	High Exposure	103	37.71	15%	4.29	0.679	1.96
	Low Exposure	588	38.26	85%	5.03		

NS  $P = 0.05$ ,  $N = 691$ ,  $df = 690$

To answer the research question: *How does the psychosocial adjustment mean-scores of adolescents with high exposure to sexual harassment differ from that of adolescents with minimal exposure to sexual harassment?* data in Table 1 shows that 15 per cent of the students reported high exposure to sexual harassment, the remaining 85 per cent had minimal exposure to sexual harassment. The students who reported high exposure to sexual harassment had a lower psychosocial adjustment mean score compared to the group that had minimal exposure. This data shows that students who suffered various forms of sexual harassment were not as psychosocially well-

adjusted as their peers in the group with minimal sexual harassment. The data in (Table 1) further shows that there is no significance difference in the psychosocial adjustment mean-scores of students with high exposure to sexual harassment and those with minimal exposure to sexual harassment. Hence the null hypothesis which postulated that there is no significant difference in the psychosocial adjustment mean-scores of adolescents with high exposure to sexual harassment and those with minimal exposure to sexual harassment was upheld.

### 3.2. Physical Abuse and Adolescents' Psychosocial Adjustment

Table 2. – Analysis of physical abuse and adolescents' psychosocial adjustment (N = 691)

Dependent Variable	Physical Abuse	N	X	%	SD	t-Calc.	t-Crit.
Psychosocial Adjustment	High Exposure	410	29.21	59%	4.31	5.95*	1.96
	Low Exposure	281	37.86	41%	2.84		

\* Significant  $P = 0.05$ ,  $N = 691$ ,  $df = 690$

To answer the research question: *How does the psychosocial adjustment mean-scores of adolescents with high exposure to physical abuse differ from that of ado-*

*lescents with minimal exposure to physical abuse?* Table 2 shows that up to 59 per cent of the student experienced high exposure to physical abuse. These stu-

dents a lower psychosocial adjustment mean score of 29.21 compared to students who experienced minimal exposure to physical abuse who scored 37.86 on the psychosocial adjustment scale. This data shows that physical abuse had a negative influence on the psychosocial adjustment of the students. The data in (Table 2) further shows that there is significance difference in the psychosocial adjustment mean-scores of students with high exposure to physical abuse

and those with minimal exposure to physical abuse. Hence the null hypothesis which postulated that there is no significant difference in the psychosocial adjustment mean-scores of adolescents with high exposure to physical abuse and those with minimal exposure to physical abuse was rejected.

### 3.3. Verbal Aggression and Adolescents' Psychosocial Adjustment

Table 3. – Analysis of verbal aggression and adolescents' psychosocial adjustment (N = 691)

Dependent Variable	Verbal Aggression	N	X	%	SD	t-Calc.	t-Crit.
Psychosocial Adjustment	High Exposure	197	29.34	29%	4.30	3.75*	1.96
	Low Exposure	494	38.72	71%	3.83		

\* Significant  $P = 0.05$ ,  $N = 691$ ,  $df = 690$

To answer the research question: *How does the psychosocial adjustment mean-scores of adolescents with high exposure to verbal aggression differ from that of adolescents with minimal exposure to verbal aggression?* Table 3 shows that only 29 per cent of the students experienced high exposure to verbal aggression, the other 71 per cent had minimal exposure to verbal aggression. The data further shows that students who reported high exposure to verbal aggression recorded a lower mean score of 29.34 on the psychosocial adjustment scale compared to students who had minimal exposure to verbal aggression who scored 38.72 on the same scale. This data indicates that verbal aggression has a negative influence on the psychosocial adjustment of students. The data in Table 3 further shows that there is significance difference in the psychosocial adjustment mean-scores of students with high exposure to verbal aggression and those with minimal exposure to verbal aggression. Hence the null hypothesis which postulated that there is no significant difference in the psychosocial adjustment mean-scores of adolescents with high exposure to verbal aggression and those with minimal exposure to verbal aggression was rejected.

### 3.3. Discussion of the Findings

The findings of this study indicate that sexual harassment has no influence on the psychosocial

adjustment of adolescents. This outcome is at variance with Nursres [16] who claimed in a review that harassment is pervasive among both male and female but particularly problematic for girls due to their quantitatively different harassment experiences. However, whatever sexual activity goes on in schools, it must have been as a result of consent from both parties which is not considered as harassment. This could be as a result of improvement in school counselling and sex education – formal and informal. It could also be as a result of sensitization campaign on HIV/AIDS as well as pressure from women professional association. The researcher therefore agrees with the fact that there is no significant influence of sexual harassment on the psychosocial adjustment of adolescents in the study population.

The result of this study further indicated that physical abuse has significant influence on the psychosocial adjustment of adolescents. This study by its findings indicated that adolescents experience physical abuse from their peers especially in schools which does not allow them to adjust properly in that social environment. The findings of this study is in congruence with the review of Elliot, Cunningham, Linder, Colangelo and Gross [13] that those who had experienced violence were predicted to be more isolated than those who did not. This is also in

line with Chin [17] that childhood physical abuse is a risk factor for depression and antisocial behaviours, the consequences which the society may suffer. Childhood physical abuse may arise as a result of poor attachment and parenting as discussed in the literature review. The researcher noticed that if parents and caregivers maltreat their children at the early stage, they develop the internal working model for antisocial behaviours. It is either they are so violent or become vulnerable to it. If these deviant behaviours are not checked and it gets out of control, it becomes a social problem which is a negative impact on the society.

This study also found significant influence of verbal aggression on the psychosocial adjustment of adolescents. The finding is in consonance with the major findings of Nwankwo [14] that emotional abuse and temperament significantly relate. Aluede [18] in a related study also concluded that those who are psychologically maltreated do not become competent adults capable of full potentials. This is because the unresolved crisis of the early stage becomes accumulated problems in the future as stated in Erick Erickson's theory of psychosocial development. The

significance of the result caused the null hypothesis to be rejected while the alternative one is accepted.

#### 4. Conclusion and recommendations

It has been established from the data collected and analysed in this study that adolescents suffer victimization from their peers with reference to sexual harassment, physical abuse, and verbal aggression. Since most of the adolescents are found in secondary schools, these forms of victimization make the learning environment threatening for them to adjust properly. It therefore brings about maladjustment. The following recommendations were made based on the findings of this study:

1. State Secondary Education Board should introduce school based intervention programmes such as Anti Bullying Campaign and Counselling Club that will be run by counsellors in order to build positive relationships among students;
2. Each school should have a psycho-medical team (a psychologist, a counsellor and a nurse) for complete therapy of the maladjusted adolescents;
3. Parents should check their level of aggression and physical punishment so that it does not lead to physical abuse of their children.

#### References:

1. Bettencourt A. Urban Adolescents' Cognitive Responses to Peer Victimization: Does Psychosocial Adjustment Play a Role? A PhD Dissertation Submitted to Virginia Commonwealth University. 2010.
2. Olweus D. Victimization by Peers: Antecedents and Long-term Outcomes. In K. H. Rubin and J. B. Asendorpf (eds.) *Social Withdrawal, Inhibition and Shyness in Childhood*. Hillsdale, NJ: Erlbaum, 1992. – P. 315–341.
3. Reynolds C. R. and Fletcher-Janzen E. (2007). *Encyclopedia of Special Education*. Available at URL: <http://www.books.google.nl>. Accessed on November 11, 2015.
4. Stosny S. (2011). Self-regulation. Available at: URL: <http://www.psychologytoday.com/blog/anger-in-the-age-entitlement/201110/self-regulation>. Accessed on November 11, 2015.
5. Okonkwo R. U.N. (2001). Factors Affecting the Parenting of Adolescents in Nigeria Cultural Context. In R. U.N. Okonkwo and R. O. Okoye (Eds.). *Nigerian Adolescent in perspective*. Available at URL: [http://www.nisepnigeria.org/bkadolescents\\_perspective.html](http://www.nisepnigeria.org/bkadolescents_perspective.html). Accessed on March 7, 2014.
6. Ogundare F. & Akintade E. (2017, January 18). Curbing Sexual Exploitation in Schools. This Day. Retrieved from: URL: <https://www.thisdaylive.com/index.php/2017/01/18/curbing-sexual-exploitation-in-schools>
7. Esther Vega-Gea, Rosario Ortega-Ruiz, Virginia Sánchez (2016). Peer sexual harassment in adolescence: Dimensions of the sexual harassment survey in boys and girls. *International Journal of Clinical and Health Psychology*, 16(1): 47–57.

8. Young B. J., Furman W., & Jones M. C. (2012). Changes in Adolescents' Risk Factors Following Peer Sexual Coercion: Evidence for a Feedback Loop. *Development and Psychopathology*, 24(2), P. 559–571. URL: <http://doi.org/10.1017/S0954579412000168>
9. Comer R. J. (2007). *Abnormal Psychology*. New York: Worth Publishers.
10. Howel J. C. (1995). *Guide for Implementing the Strategy for Serious Violent and Chronic Juvenile Offenders*. Washington DC. Office of Juvenile and Delinquency Prevention. Available at: URL: <http://www.ncjrs.gov/pdffiles/guide.pdf>. Accessed on March 7, 2014.
11. Sesar K., Živčić-Bécirević I. and Sesar D. (2003). Multi-type Maltreatment in Childhood and Psychological Adjustment in Adolescence: Questionnaire Study among Adolescents in Western Herzegovina Canton. Available at URL: <http://www.ncbi.nlm.nih.gov/Pmc/articles/Pmc2359885/>. Accessed on March 23, 2014.
12. McMacter L. E., Connolly J., Pepler D. and Craig W. M. (2002). Peer to peer sexual harassment in early adolescence: A developmental perspective. Available at URL: <http://www.ksu.edu.sa/sites/ksuArabic/Research/ncys/Documents/r24.pdf>. Accessed on September 20, 2014.
13. Elliot G. C., Cunningham S. M., Meadow L., Colangelo M., and Gross M. (2005). Child Physical Abuse and Self-perceived Social Isolation among Adolescents. *Journal of Interpersonal Violence*, 20(12),– P. 1663–1684.
14. Nwankwo F. M. (2011). Child Abuse and Social Adjustments of Public Primary School Pupils in Abia State. *Journal of Education*, 4(1),– P. 80–91.
15. Bassey I. E. (2002). *Methods and Issues in Educational Research*. Uyo: Doran Publishers.
16. Nursres C. J. (2003). Peer Sexual Harassment in Adolescents: the function of Gender. Available at URL: <http://www.ncbi.nlm.nih.gov/pubmed/12908197>. Accessed on September 20, 2014.
17. Chin E. C. (2014). *Childhood Physical Abuse and Adolescent poor Peer Relations: A study of mediation by interpersonal factors in Two Developmental periods*. A Ph. D. Dissertation submitted to Columbia University.
18. Aluede O. (2004). *Psychological Maltreatment of Students: A Form of Child Abuse and School Violence*. Available at URL: [http://www.researchgate.net/publication/228974251\\_psychological\\_maltreatment\\_of\\_students\\_A\\_form\\_of\\_child\\_Abuse\\_and\\_school\\_violence](http://www.researchgate.net/publication/228974251_psychological_maltreatment_of_students_A_form_of_child_Abuse_and_school_violence). Accessed on January 9, 2015.

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