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IMPLEMENTING VISIBLE THINKING ROUTINES IN EFL CLASSROOM

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Abstract. ***The research aims to evaluate the effectiveness of implementing VT (Visible Thinking) routines in the EFL classroom for 8th-grade students to develop their critical and creative thinking skills. The objectives include defining VT, examining its impact on critical thinking, identifying thinking practices that support language learning, assessing its effectiveness in learner engagement, exploring its role in fostering creativity, and analyzing the teacher's role in activating VT skills. The study's theoretical value lies in synthesizing research on VT routines and providing recommendations for their implementation in EFL classrooms. It explores ways to enhance learning, improve competencies, and promote mindful critical and creative thinking. The practical value involves assessing the impact of VT routines on language acquisition and cognitive skill development. The quasi-experimental design offers insights into the benefits and challenges of integrating VT strategies into EFL teaching.***

Keywords : *visible thinking, thinking routines, cognitive skills, critical thinking, creative thinking, one-group-only pretest-posttest quasi-experimental design.*

Learning is considered a consequence of thinking. Therefore, different types of thinking, primarily critical and creative thinking, are of paramount importance in the process of language acquisition. Critical thinking incorporates lower thinking skills such as remembering, identifying, understanding, and classifying, and higher thinking skills such as analysis, problem-solving, imagination, evaluation, etc. Additionally, creativity is a type of thinking that implies exploring ideas, formulating alternatives, searching for many right answers rather than just one, and partaging of results. In other words, creative thinking aims at developing learners' curiosity in discovering something new, i.e. their openness to acquire new skills [1, p.1-2].

To nurture both critical and creative thinking, researchers of Project Zero at Harvard Graduate School of Education proposed a new method of teaching – Visible Thinking (VT). According to its founders, VT is not only a simple approach but also a flexible and systematic conceptual framework, which aims at integrating the development of students' thinking with content learning across subject matters [2, p.3]. According to its website, the aim of Project Zero is to understand and enhance learning, thinking, and creativity in the arts, as well as humanistic and scientific disciplines, in formal and informal contexts, and at the individual, group, and institutional levels. Project Zero includes various topics such as Arts&Aesthetics, Assessment, Evaluation & Documentation, Civic Engagement, Cognition, Thinking & Understanding, Collaboration & Group

Learning, Digital Life & Learning, Disciplinary & Interdisciplinary Studies, Ethics at Work, Global & Cultural Understanding, Humanities & Liberal Arts, Leadership & Organizational Learning, Learning Environments, Making & Design, and Science Learning. Within the topic of "Cognition, Thinking & Understanding", researchers of Project Zero have explored the range of thinking dispositions, the nature and the culture of thinking, as well as proposed a new approach to teaching named Visible Thinking(VT). Within the large area of approaches, methods, techniques, and study frameworks, VT is a conceptual framework recently developed that aims at fostering learners' thinking dispositions such as truth-seeking, understanding, fairness, and imagination. Undoubtedly, the implementation of VT plays an essential role in the process of language acquisition as well as in increasing EFL learners' level of proficiency. In addition, VT routines are not only practices, which help teachers in engaging their learners' active thinking, but also are tools for supporting their own thinking. Thus, being involved in their own thinking abilities, learners become more independent and active thinkers. [6]

In *Making Thinking Visible or How to Promote Engagement, Understanding, and Independence for All Learners*, to explain the complexity of Visible Thinking Routines (VTRs), the authors classify them according to the three distinguished criteria: as tools, because with their help learners achieve certain goals or perform the given tasks (e.g. Think – Puzzle – Explore), as structures, because they serve as scaffolds that guide learners' thinking towards higher-order levels, such as mind mapping (e.g. Generate – Sort – Connect – Elaborate), and as patterns of behavior, because the repertoire of routines plays an important role in establishing the context shared between learners and teachers as well as their behavior (creates a dynamic classroom environment). In the same book, the authors sort several VTRs according to following categories: Introducing and Exploring Ideas (e.g. See, Think, Wonder), Synthesizing and Organizing Ideas (e.g. Colour, Symbol, Image), and Digging Deeper into Ideas (e.g. Values, Identities, Actions) [7, p.30].

VTRs foster critical thinking skills among learners. Such routines as *Circle of Viewpoints*, *I Used to Think…Now I Think…, See, Think, Wonder,* or *Compass Points* encourage and promote learners' critical thinking. For instance, *Circle of Viewpoints* is a routine that aims at developing students' critical thinking through exposing them to different points of view or opinions. This routine promotes students' awareness of the existence of different points of view in different circumstances, events, issues. In fact, this helps learners understand and motivates them to accept the diversity of people. For example, one may think in a way similar to the learner's and another one may think very different but regarding the same thing. It is important to mention the role of this routine on critical thinking skills. Through noticing and investigating different views, learners engage into a complex process of analysis, problematizing and contextualization, and furthermore the evaluation stage, which leads to understanding. Another thinking routine that is a tool of advancing in critical thinking is I *Used to Think, Now I think*. This routine is noteworthy for fostering students' critical thinking because aims at making students reflect on their own thinking style. While participating in this routine, students are engaged in thinking about their own thinking. They are encouraged to think about the way their thinking has changed and the reasons of this change. This routine helps learners by

involving them into examining their thinking, constructing their minds able to identify the relation between cause effect. It is important to reinforce that this thinking routine strengthens students' critical thinking skills by enabling them to think openly of their thinking [7, p.160-165].

The above-mentioned information stated that additional to critical thinking, creative thinking can be acquired through the implementation of VTRs in EFL classroom. In the University Journal of Florida "Relationships between Critical and Creative Thinking", the authors state that "creativity is a complex system and is expressed through a wide set of intelligences including linguistic, musical, mathematical, spatial, kinesthetic, interpersonal, intrapersonal (Gardner, 1985). Also, there are five typologies for creativity: expressive, productive, inventive, innovative, and emergenative." The authors provide a general interpretation of the notion creativity by certain researchers such as Gardener and Taylor. From this statement, creativity can be defined as a complex range of different intelligences and that it can be classified. [4]

In chapter four of the booklet "Creativity in the English Language Classroom" edited by Alan Maley and Nik Peachey, the author Chrysa Papalazarou frames the definition of creative thinking. She states that creative thinking is a type of thinking that implies exploring ideas, formulating alternatives, searching for many right answers rather than just one, and partaging of results. In other words, creative thinking aims at developing learners' curiosity in discovering something new, their openness to acquire new skills. As it was mention previously, the main goals of Visible Thinking are to strengthen learning by deeper understanding of the content and to cultivate thinking dispositions. Thinking dispositions or habits of mind that foster a creative mindset, according to Project Zero researchers include some of the following units: 1.Wondering and questioning; 2. Observing closely and describing; 3. Building explanations and formulating interpretations; 4. Reasoning with evidence; 5. Making connections; 6. Understanding the core content and formulating conclusions; 7. Searching for many other ideas, solutions, answers; 8. Being controlled at making judgements; 9. Making mistakes; 10. Sharing one's thinking with others; 11. Thinking about one's thinking [5, p.37].

There are some VTRs described by the author as essential in promoting creative thinking among learners. One of this thinking routines is called *Step inside: perceive-believe - care about*. This routine aims at developing students' creative mind through engaging them in a kind of role-play activity. The students are invited to step inside a character that is to imagine they are a different person and to try to think from their character's perspective. The teacher may select various topics or characters and provide students with material and questions like "What do you perceive?" , "What might you believe?" , "What might you care about?" In this way, students learn to be empathetic to each other and to change their views on certain matters. Another routine for nurturing creative thinking is *Looking Ten Times Two*. This method is included in another program of Project Zero, which is called Artful Thinking. It is aimed at developing habits of mind and thinking skills such as observing closely, selecting the right words for describing what they see. Because this routine involves using visual input such as pictures, students may feel curious, interested, and entertained. The routine called *Color, Symbol, Image* is another approach of developing creativity. This routine aims at helping students to

capture the idea and go beyond surface meaning. Learners are engaged in making connections and thinking metaphorically. They are invited to choose a color, a symbol, an image and to associate them with the input provided by the teacher. In this way, they are encouraged to articulate their thoughts and provide arguments. [7, p.39-41]

Acquiring a language through both creative and critical thinking nurture a set of clear and purposeful thinking patterns among students. By implementing VT routines in an EFL classroom, teachers prompt students to use actively their thinking dispositions in problem-solving, capturing the essence of an idea/text/message, visualizing a concept/idea/word, predicting content, sharing and comparing ideas/opinions/arguments. Moreover, learning a language through the routines provided by this approach, means adopting an authentic and structured way of thinking. Learners are able to think and verbalize their thoughts using authentic language across a variety of contexts. Additionally, depending on the level of students, they can learn to use their thinking in different activities that target the range of language areas such as reading, writing, listening and speaking.

In the article *How Visible Thinking Enhances Children's Learning*, the author Angela K. Salmon states some cultural forces that build the basis of thinking. These are the following: creating high expectations – teachers can create high expectations when they value thinking and appreciate children's curiosity and capacities of thinking; offering opportunities – teachers provide students with opportunities to experience thinking so that students can actively involve their cognitive skills; scaffolding thinking and learning – VT is used repeatedly and as a result it becomes a tool of understanding and exploration; focusing on language and conversations – teachers use and encourage the use of language of thinking; modelling thinking as a way of practicing – teachers are those role-models who show how to use the language in order to explore, analyze, discuss, etc.[8]

Ron Ritchart, one of the main founders of Project Zero, tries to frame a set of expectations that help educators and teachers portray the role of VT in creating a culture of thinking. He states that when both teachers and students prioritize learning as an outcome of work it becomes the means of the thinking (learning itself) and not the end. Additonaly, he underlines the idea of teaching for understanding versus real knowledge. Through this, he aims at highlighting that understanding is incomplete without knowledge, which incorporates such skills as exploring, looking for connections, searching perspectives and comparing. Another key point of the author is independence versus dependence. In this sense, he underlines the idea that VT aims at developing independent learners who are able to reflect, to find solutions and resources, self-evaluate and take challenges. Teachers should leave students to think by themselves and not impose their ways of thinking. This is why, teachers should consider the diversity of students' mindsets. Some of them might have a fixed mindset that is hard to motivate, whereas others might possess a growing mindset that is more acceptable and open to challenges. Thus, teachers should appreciate each student equally and also try to challenge unchallengeable ones [2].

The aim of the conducted research consists in conducting a quasi-experimental investigation aimed at evaluating the effectiveness of implementing VTRs in the process of language acquisition through the activation of thinking skills. The conducted research hypothesis is that implementing VT routines in the EFL classroom fosters learners' criti-

cal and creative thinking skills. The corresponding routines of this approach nurture learners' overall learning outcomes. In addition, VT fosters learner engagement and active participation, and establishes a positive, open-minded collaborative environment in the EFL classroom. The formulated objectives of the research are: to investigate how VTRs develop learners' critical thinking; to identify different thinking practices which enhance language learning; to examine the effectiveness of VT strategies on learners' engagement in the EFL classroom; to explore the influence of VT techniques in nurturing the creativity of EFL learners; to analyze the role of the teacher in activating learners' VT skills; to conduct a quasi-experimental design aimed at assessing the impact of VTRs on learners' critical and creative thinking and their overall learning outcomes.

To prove the hypothesis of the research, a quasi-experimental design was conducted at the "Mircea Eliade" Theoretical High School in Chișinău. The group involved was the 8th graders and numbered a total of 17 subjects. The research methods used were based on pre and posttest quasi-experimental design namely one-group-only pre and posttest design, observation, analysis and comparison of the results. The input used for the group included materials from National Textbook English: Level A 2.4 (2023) and additional sources suitable for integrating VT activities. Even though the 8th graders level of English is A2.4 according to National Curriculum, the majority of the pupils have a level higher from A2 to B1-B2. Having analyzed the long-term plan and the national book, the activities integrating VT routines were implemented. The thematic content during the internship was diverse (Traditions and events in the family: festive table, family recipes, Recreational Activities in the Family, Responsible Consumption of Resources, Recycling/Sorting, Important Historical Events and Personalities from the Allophone Country, Literature for Teenagers from the allophone area (simple/adapted stories, poems, simple plays)). According to the Reading Part of the long-term plan, additional topics were included such as The Most Important Qualities and Skills for a Job, Culture and civilization: Government Systems in Allophone Countries, the Origin of St.Valentine's Holiday, etc. There were allocated 2 hours for each main topic and 1 hour for extra ones. The activities implemented were selected according to their major classification within Project Zero: targeting core thinking skills, introducing and exploring ideas and digging deeper into ideas. The tasks and routines implemented during the one-group-only quasi-experimental design targeted three areas: Core Thinking Skills (Making observations (noticing) – See, Think, Wonder), Introducing and Exploring Ideas (Activating schemata (elicitation) – Think, Puzzle, Explore), Digging Deeper into Ideas (Summarising – Colour, Symbol, Image). The one-group-only pre and posttest design started with a pretest, continued with the treatment and ended with a posttest. Both the pre and posttests were focused on four major VTRs (Beginning, Middle, End (BME), Think, Puzzle, Share (TPS), Color, Symbol, Image (CSI), Values, Identities, Actions (VIA)) targeting each of the above-mentioned areas. In terms of the pretest, the results showed an average mark of 7,29 while the posttest indicated an average mark of 8,29. Thus, showing that after the implementation of VTRs the posttest mark increased with 1 point. In order to show the impact of VTRs on learners' overall learning outcomes, the results of the pre and posttests showing the usage of each VTRs were calculated. Thus, BME usage increased from 13,60% to 18,70%, TPS usage rose from 17% to 22,10%, CSI usage increased from 17%

to 22,10% and VIA usage rose from 10,20% to 15,30%. Hence, the contrastive results demonstrate a boost in the number of students who have successfully applied VTRs in doing the tasks during the posttest.

Overall, the implementation of VT routines during the quasi-experimental design was a step further in creating a culture of thinking in a language classroom. Moreover, through making students be aware of their own thinking, they discover that learning in a 21st century classroom is not only about rules of grammar and sets of vocabulary that should be learnt and memorized. Instead, learning a language in the 21st century means integrating different thinking skills that transform traditional studying into a meaningful process and environment where questions and different opinions/perspectives are welcomed and appreciated.

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