Implementation of the Immersive Method on the Artistic Expression of Students in Art Classes

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Abstract

The paper presents the immersive method in art classes in elementary school. The general scheme of this method of the artistic and pedagogical processes is easily applicable to all levels of education and all systems. The immersive method is based on the students' understanding of the idea of works of art and adopting the modes of creating ideas and their expression in a visual form. It shifts the accent from adopting and illustrating formal language in traditional classes to connecting language of the students' everyday visual new media environment. This is closely related to the strategies of contemporary new media art, with adoption of clearly defined stages in the creative process and art-related terminology. The method uses transfer in teaching, therapeutic aspect of the art and 'flow state' or the aesthetic experience. In accordance with the meaning of the word 'immersion', this method teaches the understanding of art, ideas, contexts and relationships as a whole. In a critical manner, the adopted matter is applied to the student's own environment through analysis, aesthetic interventions, and social engagement based on an environmentally and socially conscious manner. Such an approach to teaching encourages intrinsic motivation in students and has a strong educational aspect, which indicates the effectiveness of this method.

Key words: *aesthetic experience; creative process; strategies of new media art; tasks in art classes.*

Theoretical Background
Explanation of the Term 'Immersion'

The term 'immersion', Lat. 'immergere' – to sink, immerge; sinking, immerging (Klaić, 1987), Slov. 'celostna potopitev' (Strehovec, 2007), is a term primarily used

for the effects of digital technology (new media); explanation of VR (virtual reality), installation art, video games, user interfaces, 3D computer graphics, various simulators (e.g. driving, flying, educational content, etc.). The term signifies a mental state, in which consciousness of the physical 'I' disappears or is lost in an entirely pervading environment. The experience of immersion is described as something that includes full presence and separation from the outside physical world; a state of deep inclusion and preoccupation. It ensures information or multi-sensory stimulation. Immersion is also among the key strategies of contemporary new media art (Strehovec, 2003).

Internationally, the term 'immersive education' is widely known and used for didactic implementation of new media (http://www.immersiveeducation.eu/).

Contemporary Educational Institutions

According to Ule (2008), students in today's educational institutions do not participate actively in their own education since it excludes their subjective needs, and learning potentials are not founded in the students' everyday life. This excludes intrinsic motivation as an important motivational dimension. Classes should definitely include two different cognitive systems: analytical (use of articulation based on formal operations) and heuristic (based on intuitive factors such as previous experiences, feelings and unconscious motivations). This would enable shifting the focus in education to learning of what is ethically and morally right, empathy and care, and taking responsibility. The goal of the educational process would be development of a person's qualities, of new intrasubjectivity. The person would acquire permanent artistic knowledge and capabilities applicable in everyday life.

Côté and Allahar warn of the next flaw in educational institutions when they claim that the authority of the institutions such as school would be endangered if they failed to respect the influence of new technologies (according to Ule, 2008). A need for algorithmic thinking, which implies ongoing decision-making on how to handle visual, verbal and audio 'units' of information and, accordingly, analyzing, filtering, reducing, looking for the common denominator, and abstracting, emerges from using new media technologies. This manner is similar to information processing performed by the brain in the process of insight and creativity.

Nurture and Education in Visual Art

Contemporary formal education is implemented in the so-called 'decontextualized schools' (Gardner, 2004), where mere transfer of data excludes emotions from the learning process. It also fails to develop intuitive processes, lateral/creative thinking, flexibility, fluency, originality, and operationalization capabilities. Gardner (2004), therefore, proposes founding classes on a selection of subjects that can be used for the exploration of universal subjects – truth, beauty and goodness – in order to develop understanding and responsibility, personal development, and a critical attitude towards the surrounding.

Today, education in the art classes often remains within the frameworks of the formal, abstract, linear-historical and fragmented, and is mostly uninteresting to today's generations of students (Adorno, 2001). Regardless of whether these classes are based on the formal or technical characteristics, or interpretation of content, reasons for creating a work of art, or ideas, often remain unexplained (Freedman, 2003). It is, therefore, necessary to enable an integral development of students that includes not only cognitive and psychomotor development, but also affective development. Such an approach to art classes would prepare students for a more integral and active participation in society.

The Immersive Method

A phenomenon perceived in new media art as an 'immersion experience' (Strehovec, 2003) is, from a philosophical point of view, an esthetic experience; a whole experience that has a beginning, process and conclusion (Dewey, 1934/2005). In art, however, this experience is an integral creative process that ultimately leads to self-realization (sublimated effect). In psychology, this is an "optimal experience based on the 'flow state' concept, where a person is immersed in an activity so completely that everything else ceases to matter" (Csikszentmihalyi, 1990, p. 4), while "concentration is so intense that attention is not given to anything else. Self-awareness is lost and time is distorted. An activity that creates such experience is so rewarding that people produce it by itself" (Csikszentmihalyi, 1990, p. 71). A similar effect in didactics is achieved in classes that use emotional experiences (Poljak, 1991), transfer (Tacol, 2003) and intrinsic motivation in addition to intellectual (cognitive) experiences.

Immersive method was developed with the aim to achieve such integral experience during creative process in art classes. Using the immersive method, a teacher leads the students through creative process, while the students adopt the basic scheme of this process and are able to implement it independently in everyday life.

The immersive method is an integral approach to art education which encourages creative/lateral thinking and visual communication with the surrounding, and includes emotions in the learning process (expression of the students' thoughts and feelings through the assistance of artwork). According to the immersive method, art classes are organized into three clearly divided levels:

1. Implementation of stages of the creative process during the educational process so that students learn and adopt creative principles of thinking. Eisner (2002, pp. 21-24) points out that "the child's developing ability to differentiate, to form concepts, and to represent those concepts reflects the use and growth of mind." This gives reason to conclude that a "creative act is an instance of learning," as well as for the new ways of treating information (Guilford, 1968, p. 80). De Bono calls this process of using information for stimulating creativity and restructuring of insight (creating new ideas) lateral thinking, and sees this transfer of ideas as a type of communication. This thinking can be taught, practiced and used, which implies that creativity 'must be able

to start on demand' (De Bono, 1970), i.e. by a certain degree learnt and implemented. Creative process that should be adopted starts with the 1) internal or external contents, which are, through free associations (Bollas, 2006), metaphors, symbols, and codes, extrapolated into an 2) idea. For its part, the idea is transferred into a 3) form for which the appropriate 4) medium and material are found. Finding the appropriate form for particular contents, along with divergent thinking, simultaneously develops convergent thinking in the search for the best possible solution. It is a discovery of conclusion in this process that creates a surprise, which becomes a source of pleasure and self-realization. The identification with the expressed is established, that is 5) sublimation, which confirms the strong therapeutic aspect of art;

2. Inclusion of the nurture aspect. Besides adopting the formal contents of the classes, they include systematic work on the subjects related to universal issues, ethical and moral values (Gardner, 2004). These are so-called universal subjects of truth, goodness and beauty (Gardner, 2004), e.g. ecology, interpersonal relations, tolerating differences etc., which the teacher selects in relation to the students' cognitive and affective Each universal subject is connected to the generative subjects that are based on the students' experience (Freire, 1970/2010);

3. Inclusion of strategies of contemporary new media art: immersion, acts of dispersion, recycling, mixing and sampling, tactility, simulation, suspense, interaction, action, play, performativity, fluid and processual character (Strehovec, 2003). This allows students to use their everyday language characteristic for the visual surrounding created by new media technologies. The abovementioned contemporary new media art strategies are used as mediators in the transfer of the subject content, ideas and messages (content) into the result of the creative process (form), and represent a way of tackling the forms, materials and media.

In the course of the process, an all-encompassing and all-fulfilling sense, characteristic of the immersive experience/esthetic experience/flow state/sublimate effect, emerges.

A need for clear structuring of the teaching and creative process, while using the immersive method, arises from an individual's need to find a similar process that would enable him more easily to manage today's complex, uncertain and double entendre new media environments (Bolter & Grusin, 2000). Analytical thinking is applied to deconstruct a given problem to better-known, smaller elements, while in the process of creating the new, uninhibited associations a synthesizing ability to reconstruct the whole, which is established by collecting information in new ways, emerges: the so-called relational thinking that forms patterns and connections between the relations (Bourriaud, 2002). The immersive method helps students to adopt deconstructed and simplified phases of the creative process and to implement them later, every time they create something new. This is confirmed in the research by Niu and Liu (2009): "Students who have received structured and precise instructions for their work demonstrated significantly more creativity in carrying out the tasks

than students who received less structured instructions related to the encouragement of creativity in learning" (Juriševič, 2010, p.422).

Such a teaching process enables personal creative growth of students and intra-personal communication, which opens the possibility for their comprehension and self-realization. Each student forms permanent artistic knowledge and abilities, which means that such quality of art teaching is applicable in everyday life and work. Students adopt creative thinking processes that are applicable, through analysis, esthetic intervention, and ecological and social consciousness, to their own environment.

From a didactic point of view, this is problem-based and exploratory learning within a framework of education organized around projects (clear problem idea and goal, research work, algorithm approach, *a priori* defined ways and criteria for evaluation). However, the method is applicable in equally structured shorter time span (e.g. two-hour classes). Guidelines for the implementation of the educational process are based on contemporary theories of didactic power of the visual art as an integral part of everyday life (Freedman, 2003).

Explanation of the Process

The general scheme (see supplement No. 1) begins with a **universal subject** that explores the universal ethical and moral issues; then the given universal subject is related with immediate life experiences of students (practical, emotional, and intellectual). 'Diffuse attention', that enables approach to distanced associations (Efland, 2002), found in one's experience extracts content (affects and emotions), resulting in a **generative subject**, which arises from each student's personality. This encourages intrinsic motivation and creates a willpower used so that the shift of energy from the generative theme could be transferred, with the help of concentrated attention, towards the all-encompassing and all-fulfilling conclusion, i.e. the ultimate expression that brings a certain message and can, therefore, be used for communication. First of all, it is important to extract what the artwork wishes to express. Since the experience is provided with a potential conclusion, it becomes aesthetic. The attention is focused through certain factors that are rendering the experience personal and filter it in the process. **Content is being assorted and reduced** so that it could be used for extracting an idea, which should be simultaneously new and useful in a certain social environment (Flaherty, 2005). According to Eisner (2002), *ideas* are distilled images in any form or a combination of forms, and present the particularities of the experience. Once the ideas are formed, a process of searching for a mediator, which could be visual, audial, or linguistic, begins. The process includes "activities such as inventing, designing, contriving, composing, and planning" (Guilford, 1968, p. 78). The old patterns are restructured and new ones provoked, new ideas are created, and lateral thinking is being developed (De Bono, 1970, pp. 11-12). This is an integral process that, according to Guilford (1968, pp. 99-114), encourages creativity (process of connecting one's previous experience with responses to stimuli and formation of at least one unique

combination), originality (production of the unusual, far-fetched, remote, or clever responses), factors of fluency (ideational, associational, expressional), factors of flexibility (spontaneous, adaptive), redefinition, sensitivity to problems, perceptual capabilities, elaboration, and critical attitude.

Accordingly, expression is an action of explaining one's own experience, 'objectification' of the feelings and thoughts. The ideas can be represented in any type of material or symbolic system, that is, in any type of *form*. Without the external objectification, the experience stays incomplete, which is why it has to be transformed through a *medium* into a *material*, enabling it to start a dialogue with the surrounding. In this process, a student is being constantly reminded of a connection between what has been done and what has been experienced, of subjective impression of satisfaction with one's achievements and connection of this feeling with the result. A *deliberation* is being accentuated, where the present content achieves a form and solidifies, while the old, 'archived' content is being literally re-lived through contact with a new situation, reconsidered and recreated – this is what we call the therapeutic effect of art. The expression is also achieved in a moment when (the completed) object creates a feeling of satisfaction, characteristic for the aesthetic perception. A similar process takes place within the viewers: they recreate relations that can be compared with those the original creator has experienced, and so communication with the visual artwork is being established (according to Dewey, 1934/2005). In a creative teaching process, students are encouraged to evaluate the degree of completion of their own and somebody else's work not only through intellectual and external evaluation, but through direct perception, intuitive intelligence and feeling of satisfaction as well. Eisner (2002) calls this the fourth cognitive function of representation. Discovery of the completion in the process creates a surprise that is, by itself, a source of satisfaction. This is the surprise in which one, more often than not, learns something. Students who adopt this creative way of thinking would, in the end of the educational process, become independent in the implementation of what they have learned.

Research Methodology
Sample of Participants

The immersive method was implemented in regular art classes in the period between September 2012 and June 2013. Part of the research presented encompasses three 5th grades (63 students, N=63) in three obligatory eight-year elementary schools located in Zagreb, Croatia. The sample is convenient, not representative.

Research Problem and Goals

The basic problem of the research was how to improve the implementation of the immersive method in art classes in practice.

Research goals:

1) Achieving students' progress in: understanding the processes of creating works of art (developing an idea, searching for a form appropriate for cognitive and emotional

content, selecting media and materials); connecting subject content with life through one's personal experience (generative subjects); interest for the universal subjects and artistic expression; originality of ideas in artistic expression; using new media in artistic expression;

2) Developing guidelines for implementing the immersive method in art classes.

Research Questions

1) How to implement the immersive method within framework of the existing Teaching Plan and Program?

2) How to transfer focus from lesson concepts used so far (illustrating the key terms in the students' artwork) towards stimulation of creativity (adoption of the creative/ lateral thinking principle, i.e. scheme of the creative process)?

3) How to encourage the affective aspect in lessons: encouraging interest for moral and ethical issues, developing positive attitudes, establishing a critical attitude towards one's surrounding, developing the capability to connect art-related activities with life in order to achieve transfer and sublimating aspect of influence of creativity on the students' internal development, and establishing visual communication with the surrounding?

4) How to use new media and new media strategies found in students' surroundings, in their artistic expression?

5) Does implementation of the immersive method in art classes influence students' interest for artistic expression, independence, implementation of what was already adopted in previous lessons on tasks in new lessons and on creativity (originality, fluency, flexibility), and critical attitude towards one's surrounding?

Method, Techniques, Research Instruments

Research methods: qualitative action research (four-step developmental approach); so-called performative research (Vogt et al., 2009, p. 26);

Research techniques: questionnaire polling, grading, knowledge verification, interviewing, observation, analysis of the contents;

Research instruments were developed in order to implement the research: questionnaire, grading scales (for artwork), Likert-type position scales, test of knowledge and understanding of initial subject/motive, interview (non-structured and semi-structured), observation (written and photo documentation), written notes, written and oral observations of the teachers; instruments specific for performative research.

Common instruments in all action steps:

-written observations of all lessons during the entire school year according to Kirkpatrick (1954/2014).

Four levels of evaluation of studying were monitored:

1) reaction of the students (subjective feeling of success and satisfaction with the process and work, strong and weak points of the tasks, adjustment to personal styles of learning, non-verbal communication, relation towards teaching and the creative process); 2) behavior (way and scope of using the adopted contents in further teaching process, implementation of positions and behavior, awareness of one's own changes); 3) results (presentation and analysis of one's own work); 4) notes on reactions of the teachers.

Other instruments used were: task results (written, audio and photo documentation); non-structured interviews with teachers; semi-structured and non-structured interviews with the students; written follow-up of analysis of works (level of adopting and implementing the teaching process, understanding the idea and message of each piece of work; interpretation of universal subjects; relation between content and form, media and material); students' artwork (analysis of transfer of symbolic form into material forms of mobile and immobile pictures, sounds, live action and digital code); grading scale for artwork; written tasks for students (developing lateral thinking, understanding of universal subjects, motivation, level of attractiveness of the teaching content and new type of classes, applicability of the teaching contents in further life, experience of learning).

Specific instruments for action steps:
1st *action step* – written and oral tasks for the students;
2nd *action step* – ludic and exploratory performative tasks;
3rd *action step* – taking notes on reactions and results achieved by students after receiving written and verbal instructions for group work (students' written solutions, drafts, idea-development); written and audio notes of the creative process and analysis of work (self-evaluation and independent insight during the creative process; notes on self-motivational students' initiatives regarding insight during the creative process and collection of additional material for classes; independence within the groups; cooperation with other group members);
4th *action step* – written tasks for the students (production of certain number of various ideas aimed at adopting patterns necessary to create multiple ideas and select an appropriate idea that would send the work's message; classification of applicability of the ideas, literal aspect and farfetchedness of associations); notes on self-motivational students' initiatives regarding insight during the creative process and collection of additional material for classes; independence in the implementation of the algorithm scheme of the creative process; sensitivity towards the universal subject.

Procedure

Contrary to the general ban of using the mobile phones in schools, students were allowed to keep their telephones turned on during the entire school year and use them if necessary. Mobile phones were necessary for concrete art tasks, documenting the creative process and artwork, and Internet searches for gathering the data and visual materials necessary for the teaching process.

Each action step corresponded to a project that encompassed certain teaching content.

The following changes were introduced according to each action step:

First action step: *introduction of the teaching methods (Mattes, 2007) and strategies (Marzano, Pickering, & Pollock, 2006) corresponding to the subject, strategies of contemporary new media art corresponding to the formal aspect of the tasks and exercises encouraging lateral thinking. The abovementioned was introduced in classes through oral, written and performance tasks, as well as using communication technologies (mobile phones).*

The first action step/project included the teaching subject POINT AND LINE, as well as units from the teaching plan and program: Shape lines, flow and character of the lines; Structural points and lines; Structural lines.

Duration of the project: 6 teaching hours.

Introduction of the universal subject: Introduction to affirmative communication; ways of communicating as a means to express thoughts and feelings; visual communication;

Generative subject – connecting with the students' personal experience: connection with examples from students' daily life (class, school, friends…); written notes on the events, whether real or imaginary (technique for stimulating lateral thinking);

Setting the goal and idea extraction: extracting the basic feeling from a story aimed at its non-verbal presentation; discussion on the message;

Searching for the appropriate form for given contents; Media and materials: art task– visual message through a point and line – mobile phone text message – art through new media technologies; (*example:* sorrow %[˙I¨].!*_*,?? }!!!!-----} ɔ...). Visualization of abstract notions (feelings) through traditional media, drawing and collage;

Deliberation and analysis; Remediation: During practical work, students were encouraged to proceed with the deliberation and analysis of their works, as well as to think which of the materials offered they would use for expressing the foreseen contents. Analysis of the students' artwork through prepared tasks and keeping records of their answers to given tasks; reconstruction of the results – processing of the teaching contents. Verification of what has been adopted.

Figure 1. Student's artwork

Second action step: *encouraging intrinsic motivation in students (generative subjects), introduction of clear rules on steering the students' emotional and cognitive contents into an appropriate form and media, as well as contemporary new media art strategies implemented in processing the teaching contents.*

The second action step/project included teaching the subject COLOR, as well as units from the teaching plan and program: Light values of clear colors; Clear colors, warm-cold contrast; Complementary contrast.

Duration of the project: 6 teaching hours.

Introduction of the universal subject: Continuation from the universal subject in the first project on communication;

Generative subject – connecting with students' personal experience: Performative tasks related to the implementation of color in students' lives and association plays that connect colors with emotions; written tasks that required presenting one's favorite color (technique for stimulating lateral thinking);

Setting the goal and idea extraction: extracting the basic idea and message from each story; discussion on visualization and ideas through colors;

Searching for the appropriate form for given contents; Media and materials: task in art class –visualization of one's personal story through color, expression of dominant emotions in a story, tempera technique;

Deliberation and analysis; remediation: During practical work, students were encouraged to proceed with the deliberation and analysis of their works, as well as to think about their following steps. Analysis of the students' artwork was done using prepared tasks and records were kept on their answers to given tasks; reconstruction of the results – processing of the teaching contents. Verification of what has been adopted.

Figure 2. Student's artwork

Third action step: *introduction of self-assessment and independent deliberation during the creative process.*

The third action step/project included teaching the subject SURFACE AND FLAT SPACE, as well as units from the teaching plan and program: Static and dynamic flat

space; Figures on a flat space; Redefinition of flat space; Graphic modeling; Rhythm of the shapes and textures; Painting textures.

Project duration: 12 teaching hours.

Introduction of the universal subject: Continuation of the universal subject in the first project on visual communication; connection with an ecological and health-related subject; connection between individual and society, as well as how much each individual can contribute to general progress regarding preservation of the immediate surrounding; how to influence others with the goal of strengthening the awareness of the importance of taking care of the environment;

Generative subject – connecting with the students' personal experience: Written tasks related to one's own experience about the given subject (technique for stimulating lateral thinking);

Setting the goal and idea extraction: extracting the basic idea and message from each story; discussion on visualization, as well as ideas and messages in the form of a billboard of a sort that aimed at warning other students in school;

Searching for the appropriate form for given contents; Media and materials: tasks preceding the main task: conceiving and developing of a board game; finalizing the given detail; main artwork task: each group is given a particular task (from both formal and thematic aspect) according to which it visualizes the extracted idea into a billboard with a clear message;

Deliberation and analysis; Remediation: During practical work, the students were encouraged to proceed with the deliberation and analysis of their works, as well as to think about their next steps. Analysis of the students' artwork through already prepared tasks and keeping records of their answers to given tasks; reconstruction of the results – processing of the teaching contents. Verification of what has been adopted.
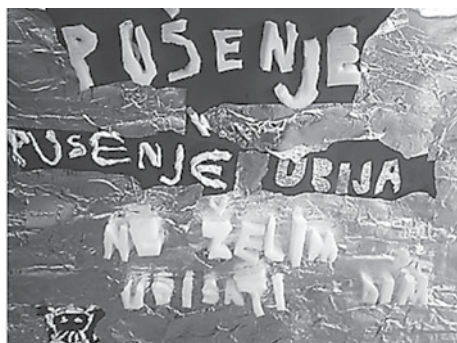

Figure 3. Student's artwork

Fourth action step: *introduction of partial independence of the students in creating and introducing their own projects: teacher becomes a mediator, while the students adopt and independently implement an algorithm scheme of the creative process; sensibility to*

universal subjects (independence in choosing, sensibility for the context, emphatic insight, flexibility, critical attitude towards surrounding).

Fourth action step/project included teaching subject MASS/VOLUME and SPACE, as well as teaching units: Basic three-dimensional forms; Proportions of three-dimensional forms (bodies) in space; Complex space structures and constructions.

Duration of the project: 6 teaching hours.

Introduction of the universal subject: Discussion on the position of the students and position of children in other parts of the world, as well as on the rights and availability of schooling (analysis of the examples);

Generative subject – connecting with the students' personal experience: Students' attitude towards school; written and performance tasks (technique for stimulating lateral thinking);

Setting the goal and idea extraction: extracting the basic idea and message from each story; discussion on visualization, as well as ideas and messages in the form of an animated film; development of a storyboard;

Searching for the appropriate form for the given contents; Media and materials: artwork task – photographing individual shots for the animated film;

Deliberation and analysis; Remediation: Students were expected to proceed with independent deliberation and analysis of their works, and to implement stages of creative process. Analysis of the students' artwork and reconstruction of the results – processing of the teaching contents. Verification of what has been adopted.

Figure 4. Student's artwork

Results and Implementation

Using instruments of observation and recording, non-structured interviews with the teachers and semi-structured and non-structured interviews with students' data were extracted relating to the dynamics and structure of the teaching process, and students' reactions to tasks. The results from monitoring the students confirmed positive reactions and a high level of intrinsic motivation for lessons based on the

immersive method in all four action steps, particularly during the visualization of one's own cognitive and emotional contents. The results from the written (exercises for encouraging lateral thinking and idea-development), performance and ludic tasks show that all students accepted them as an integral part of the classes, and that they followed guidance in defining clear visual messages. Through instruments of the students' artwork, the assessment grade for artwork, written and oral insights of teachers, the results confirm successful realization of artwork for the majority of students that allowed easy reading of an idea and message, while the solutions were, corresponding to goals, pronouncedly individual and original. The percentage of realized and defined works increased during the action steps thus, a large number of unfinished works in the first action step was subsequently altered with the fact that all works were completed in the third and fourth steps. Through instruments of recording students' reactions and behavior, as well as students' artwork (analysis of transfer of symbolic forms into material forms of motion and still pictures, sounds, live action and digital code) the data were received at the level of adoption of the algorithm scheme of creative process. Records of students' reactions and results of the written and oral instructions for group work (students' written solutions, sketches, idea development), records of students' independent initiatives regarding deliberation during the creative process, collection of additional material for classes and independence within the groups, indicated that, during the third action step, students used the Internet on their mobile phones by personal initiative in order to expand textual and visual information on a given subject. In the fourth step, they used mobile phones independently in search for options for the best possible realization of the tasks. During task realization, it was noticed that all groups were independent in making decisions related to content and form, that they are self-organized when it comes to work discipline and deliberation, discussion on message clarity and formal quality of the works. Empathy, cooperation and mutual respect among the students also increased. Through students' written tasks (production of a number of ideas…), during the fourth action step,the adoption of patterns for creating multiple ideas and selecting an appropriate idea for the message, students' independence in decisions on the work's formal characteristics and in determining stages of the working process, connecting and including contents of other classes and teaching subjects, as well as self-organization in dividing tasks and their realization (e.g. voting or agreement) were also observed. Records of analyses through all four action steps indicate an increase in the desire for equal participation in the analysis of other students' works and for a detailed analysis of one's own work. In the analysis by the end of the fourth step, students were independently using teaching contents and key terms. Some students worked independently at home, while explanations of these pieces confirmed the need for using the therapeutic effect of art in classes (Bilić, 2012). The recorded and oral analyses of works (adoption and implementation of teaching contents, understanding of idea and message of each work) an analysis of several layers of works has been

established (various levels of meaning and perception). With full realization, students used symbols, near and far associations and codes, which they used for expressing the basic idea and message of their own works; in this regard, the independence level gradually increased from the first towards the fourth action step. During the analysis, the students were reading the subjects of the works first at an intuitive level, and then implemented the adopted information and knowledge in formal analysis and remediation (Bolter & Grusin, 2000). The analysis encompassed deliberation of the entire working process, analysis of ideas for each piece and their contexts in real life, the way of transferring the ideas into a form, and connecting with the teaching contents. The results from the questionnaire for students (motivation, level of interest for the teaching content and new type of classes, applicability of teaching contents in further life, perception of learning) showed a high percentage for the acquisition of teaching content and for understanding of the universal subjects along with a high level of motivation and adaptation to the new type of class. However, it also showed a low level of trust in the applicability of the teaching contents in everyday life. According to the Likert scales, in all grades and for all four projects, the following answers were dominant: *I feel nice during classes; I have learned something and it was interesting to me; I have learned a lot, it was interesting and fun to me; sometimes things were interesting to me; it would be useful for me in the everyday life.* In several cases, the answers were following: *sometimes the things were interesting to me; I am not sure what I have learned.* Results indicated the following changes: adoption and implementation of the scheme of creative process according to the immersive method (encouraging creative/lateral thinking); adoption of techniques for the production and development of ideas; sensibility for ethical and moral issues; formulating clear visual messages; identification with one's own artwork; acceptance and adoption of rules for project-based classes. All of the foreseen changes have been achieved.

In the final deliberation and analysis, the students agreed that the new type of class is interesting and fun, but that they constantlyhave to think and be active, which is something they are not used to.

Conclusion

The results of the research conducted on a targeted sample and case studies introduce an alternative method that could promote better involvement of students in planning and execution of lessons focusing on social issues, emotional acceptance, identification with one's own work, and possibility of creative expression; realization and evaluation of the work process itself. The method promotes students' motivation, the creative thinking process, the sublimation aspect of the creative act, sensibility for moral and social issues, questioning one's own environment, establishing attitudes and action. It also introduced changes in the interest of creation of the original ideas in art expression using strategies of contemporary new media art, as mediators for transferring ideas into results of the process (handling forms, materials and media)

and new media surrounding of the students. A new type of lesson, based on the immersive method, answers the question how to improve students' insight into their own thoughts, feelings and experiences. It encourages communication with the environment, and develops their critical position towards that environment (art as a way of expression, communication and identity-construction) through stages of creative processes, strategies of new media art, promotion of creative thinking, the immersive impression of creation and sublimation (finding the appropriate form for given contents) in the creative process of art classes. The analysis of all the results determined that implementing the immersive method in the regular teaching process, following the Teaching Plan and Program, was successful, and that the description of procedures and analysis of results provided answers to all of the research questions.

So far, art teaching has not had a universal method that would be applicable at all levels of education and in all educational institutions, a method that would also consider nurture and the therapeutic aspects of the art. Students, participants in the research, acquired a crucial meta-competence, creative thinking process they could use to communicate with their surrounding visually and change it actively.

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Primjena imerzivne metode na likovno izražavanje učenika u nastavi likovne kulture

Sažetak

Ovdje je predstavljena imerzivna metoda u nastavi likovne kulture. Opća shema te metode likovno-pedagoškog procesa primjenjiva je na svim obrazovnim razinama i sustavima.

Imerzivna metoda temelji se na učenikovu razumijevanju nastajanja umjetničkih djela i usvajanju načina prizvodnje ideja i njihova izražavanja u vizualnom uratku. Prebacuje naglasak s usvajanja i ilustriranja likovnih pojmova u tradicionalnoj nastavi na povezivanje jezika svakodnevne vizualne novomedijske okoline učenika, bliskog strategijama jednog dijela suvremene umjetnosti, s usvajanjem jasno definiranih etapa kreativnog procesa i likovnih pojmova. Metoda se služi transferom u nastavi, terapeutskim aspektom umjetnosti i tzv. flowstate ili estetskim Iskustvom. U skladu sa značenjem riječi 'imerzivno' (engl. immersion: ulazak u virtualni svijet, uranjanje, zadubljivanje, potapanje), metoda uči razumijevanju umjetničkog djela, ideje, konteksta i odnosa kao cjeline u kojoj pojedinac živi.

Usvojeno se kritički primjenjuje na vlastitu okolinu analizom, estetskim intervencijama i ekološki i društveno osviještenim sudjelovanjem u životu zajednice. Takav pristup nastavi potiče intrinzičnu motivaciju kod učenika i ima snažan odgojni aspekt, što ukazuje na uspješnost te metode.

Ključne riječi: *estesko iskustvo; kreativni proces; likovni zadatci; strategije suvremene novomedijske umjetnosti.*

Teorijska polazišta
Obrazloženje pojma imerzivnost

Pojam imerzija, lat. immergere – potonuti, uroniti; potapanje, uronjavanje (Klaić, 1987), engl. immersion, slov. celostna potopitev (prema Strehovec, 2007), termin je koji se primarno koristi za učinke digitalne tehnologije (nove medije); opisivanje VR (virtualne realnosti), umjetnosti instalacije, video igara, korisničkih sučelja, 3d računalne grafike, raznih simulatora (npr. vožnje, leta, obrazovnih sadržaja itd.). To je pojam koji označava mentalno stanje, ono stanje svijesti u kojem je svijest o fizičkom 'ja' nestala ili je izgubljena u potpuno prožimajućoj okolini. Iskustvo imerzivnosti

opisuje se kao nešto što uključuje potpuno prisustvo i odijeljenost od vanjskog fizičkog svijeta, stanje duboke uključenosti i zaokupljenosti. Osigurava informacije ili stimulacije za više osjetila. Imerzivnost je i jedna od ključnih strategija suvremene novomedijske umjetnosti (prema Strehovec, 2003).

Međunarodno je pojam imerzivnog obrazovanja naširoko poznat i koristi se za didaktičku primjenu novih medija (http://www.immersiveeducation.eu/).

Institucija obrazovanja u suvremenom društvu

Prema Ule (2008), u današnjim obrazovnim institucijama učenici ne sudjeluju aktivno u vlastitom obrazovanju jer u njega nisu uključene njihove subjektivne potrebe, a potencijali za učenje ne nalaze se u njihovu svakodnevnom životu. Time je isključena značajna motivacijska dimenzija obrazovanja, intrinzična motivacija. U nastavni proces svakako bi trebalo uključiti i dva različita kognitivna sustava: analitički sustav (upotreba artikulacije na temelju formalnih operacija) i heuristički sustav (koji se temelji na intuitivnim faktorima kao što su prethodna iskustva, osjećaji i nesvjesne motivacije). Tada bi se naglasak u obrazovanju mogao preusmjeriti na učenje etičke i moralne ispravnosti, empatije i brige, preuzimanja odgovornosti. Cilj odgojno-obrazovnog procesa bio bi kvaliteta osobe, nova intrasubjektivnost. Osoba bi stjecala trajno znanje i sposobnosti koje imaju primjenu u svakodnevnom životu.

Na sljedeću manjkavost institucije obrazovanja upozoravaju Côté i Allahar kada kažu da će autoriteti institucija kao što je škola biti ugroženi ako ne budu poštovali utjecaj novih tehnologija (prema Ule, 2008). Iz upotrebe novomedijskih tehnologija proizlazi potreba za algoritamskim mišljenjem u smislu stalnog odlučivanja o baratanju vizualnim, verbalnim i zvučnim 'jedinicama' informacija, odnosno za analiziranjem, filtriranjem, reduciranjem, traženjem nazivnika i apstrahiranjem. To je način blizak obradi informacija koju obavlja mozak u spoznajnom i kreativnom procesu.

Odgoji obrazovanje u području likovne / vizualne umjetnosti

Formalno obrazovanje danas se odvija u tzv. 'dekontekstualiziranim školama' (Gardner, 2004) u kojima se u proces učenja, pukim prenošenjem podataka, ne uključuju emocije, ne razvijaju se intuitivni procesi, kreativno/lateralno mišljenje, fleksibilnost, fluentnost, originalnost i sposobnosti operacionalizacije. Gardner (2004), stoga, predlaže da nastava krene od izbora teme koju je moguće iskoristiti za istraživanje univerzalnih pitanja – istine, ljepote i dobrote – s ciljem postizanja razumijevanja i odgovornosti, osobnog rasta učenika i kritičkog stava prema okolini.

Današnje poučavanje u području vizualne umjetnosti previše ostaje u okvirima formalnog, apstraktnog, linearno povijesnog i fragmentiranog, za nove generacije uglavnom nezanimljivog (Adorno, 2001). Bez obzira na to proizlazi li ta nastava iz formalnih ili tehničkih karakteristika ili interpretacije sadržaja, često se ne objašnjavaju razlozi stvaranja umjetničkog djela, ideje (Freedman, 2003). Stoga je učeniku potrebno omogućiti cjelovit razvoj koji, osim kognitivnog i psihomotoričkog, uključuje i

afektivni razvoj. Takav pristup umjetničkom obrazovanju pripremio bi učenike na cjelovitije i aktivnije sudjelovanje u društvu.

Imerzivna metoda

Ono što je u suvremenoj novomedijskoj okolini 'imerzivno' iskustvo (Strehovec, 2003), sa stanovišta filozofije umjetnosti je estetsko iskustvo, potpuno iskustvo koje ima početak, proces i zaključak (Dewey,1934/2005), a u umjetnosti je to iskustvo cjelovitog kreativnog procesa čiji je krajnji učinak samoostvarenje (sublimativni učinak). U psihologiji to je „optimalno iskustvo utemeljeno na konceptu 'flowstate', u kojem su ljudi toliko uronjeni u aktivnost da ništa drugo nije važno" (Csikszentmihalyi, 1990, str.4), „koncentracija je toliko intenzivna da se pažnja ne posvećuje ničem drugom. Gubi se svijest o sebi i dolazi do distorzije vremena. Aktivnost koja stvara takvo iskustvo jest tako nagrađujuća da je ljudi provode samu po sebi" (Csikszentmihalyi, 1990, str. 71). U didaktici se sličan učinak postiže nastavom koja osim intelektualnih (spoznajnih) uključuje i emocionalne doživljaje (Poljak, 1991), transfer (Tacol,2003) i intrinzičnu motivaciju.

S ciljem postizanja takvog cjelovitog iskustva tijekom kreativnog procesa u nastavi likovne/vizualne umjetnosti osmišljena je imerzivna metoda. S pomoću imerzivne metode nastavnik vodi učenike kroz kreativni proces čiju osnovnu shemu učenici usvajaju pa je mogu samostalno primjenjivati u svakodnevnom životu.

Imerzivna metoda cjelovit je pristup poučavanju likovne/vizualne umjetnosti, potiče kreativno mišljenje i vizualnu komunikaciju s okolinom te uključuje emocije u proces učenja (izražavanje misli i osjećaja učenika s pomoću likovnih uradaka). Nastavni proces likovne kulture je, prema imerzivnoj metodi, organiziran na tri jasno raščlanjene razine:

1. primjenjuje etape kreativnog procesa na nastavni proces tako da učenici uče i usvajaju pojednostavljenu, univerzalnu shemu kreativnog procesa i tako razvijaju kreativni princip mišljenja. Eisner (2002, str. 21-24) ističe da „djetetova razvijajuća sposobnost diferencijacije, oblikovanja ideja i predočavanja tih ideja, odražava upotrebu i razvoj uma". Iz toga proizlazi da „kreativni čin postaje poticaj na učenje" i na novi način postupanja s informacijama (Guilford, 1968, str. 80). De Bono proces korištenja informacijama za poticanje kreativnosti i restrukturiranje uvida (stvaranje novih ideja) zove lateralno mišljenje, a taj prijenos informacija vidi kao vrstu komunikacije. To mišljenje može biti naučeno, vježbano i korišteno pa iz toga proizlazi da se kreativnost 'mora moći pokrenuti na zahtjev'(De Bono, 1970), tj. do određene mjere naučiti i znati primjenjivati. Kreativni proces koji je potrebno usvojiti kreće od 1) unutrašnjeg ili vanjskog sadržaja koji je slobodnim asocijacijama (Bollas, 2006), metaforama, simbolima i kodovima izlučen u 2) ideju. Ta ideja je transponirana u 3) formu za koju su nađeni adekvatni 4) medij i materijal. Nalaženje odgovarajuće forme za određeni sadržaj, uz divergentno mišljenje, komplementarno razvija i konvergentno mišljenje u smislu traženja najboljega mogućeg rješenja. Otkrivanje završetaka u

tom procesu stvara iznenađenje koje je izvor zadovoljstva i samospoznaje. Dolazi do identifikacije s izraženim, do 5) sublimacije, potvrđujući snažan terapeutski učinak umjetnosti.

2. djeluje odgojno jer osim usvajanja formalnog nastavnog sadržaja uključuje sustavni rad na temama koje se bave univerzalnim pitanjima etičkih i moralnih vrijednosti (Gardner, 2004). To su tzv. univerzalne teme istine, dobrote i ljepote (Gardner, 2004), npr. ekologija, međuljudski odnosi, tolerancija na različitost itd. koje učitelj bira u odnosu na kognitivni i afektivni razvoj učenika. Svaka je univerzalna tema povezana s generativnim temama koje se temelje na učenikovu iskustvu (Freire, 1970/2010).

3. uključuje strategije suvremene novomedijske umjetnosti: imerzivnost, postupke raspršenosti, recikliranja, miksanja i semplanja, taktilnost, simulaciju, suspenz, interaktivnost, akciju, igru, performativnost, fluidni i procesualni karater (Strehovec, 2003) pa se učenici koriste jezikom kojim se služe u svakodnevnom životu, u vizualnoj okolini kreiranoj novomedijskim tehnologijama. Navedene strategije suvremene novomedijske umjetnosti koriste se kao posrednici pri prijenosu nastavnog sadržaja, prijenosu ideja i poruka (sadržaja) u rezultat kreativnog procesa (formu) te predstavljaju način bavljenja formama, materijalima i medijima.

U tom procesu javlja se prožimajući i ispunjujući osjećaj svojstven imerzivnom iskustvu / estetskom iskustvu / flow state / sublimativnom učinku.

Potreba za jasnim strukturiranjem nastavnog i kreativnog procesa s pomoću imerzivne metode proizlazi iz potrebe današnjeg pojedinca za sličnim postupkom zbog lakšeg snalaženja u suvremenim kompleksnim, neizvjesnim i dvosmislenim novomedijskim okruženjima (Bolter i Grusin, 2000). Primjenjuje se analitičko mišljenje kojim se zadani problem razlaže na poznatije, manje dijelove, a stvaranjem novih, slobodnih asocijacija, razvija se sintetizirajuća sposobnost rekonstruiranja cjeline nastale sabiranjem informacija na nove načine, tzv. relacijsko razmišljanje koje među odnosima stvara obrasce i veze (Bourriaud, 2002). S pomoću imerzivne metode učenik usvaja raščlanjene i pojednostavljene faze kreativnog procesa koje poslije može primijeniti kod svih zadataka u kojima stvara nešto novo. To potvrđuje istraživanje Niu i Liu (2009): „Učenici koji su dobili strukturirane i precizne instrukcije za rad demonstrirali su značajno više kreativnosti u realizaciji zadataka nego učenici koji su primili manje strukturirane instrukcije u smislu poticanja kreativnosti u učenju" (Juriševič, 2010, str. 422).

Tijekom takvog nastavnog procesa događa se osobni kreativni rast učenika i intrapersonalna komunikacija pa se otvara mogućnost spoznaje i samoostvarenja. Svaki učenik stječe trajno likovno znanje i sposobnosti, onu kvalitetu likovnog / vizualnog obrazovanja koja ima primjenu u svakodnevnom životu i radu. Usvaja procese kreativnog mišljenja koje može kritički primjenjivati na vlastitu okolinu analizom, estetkim intervencijama, ekološkom i društvenom osviještenošću.

S didaktičkog stajališta radi se o problemskom i istraživačkom učenju u okviru projektne nastave (jasna problemska ideja i cilj, istraživački rad, algoritamski pristup, unaprijed određeni načini i kriteriji vrednovanja), ali je metoda primijenjiva i u jednako strukturiranom, manjem vremenskom opsegu (npr. nastavni dvosat). Smjernice za izvođenje nastavnog procesa temelje se na suvremenim teorijama o didaktičkoj snazi vizualne umjetnosti kao sastavnog dijela svakodnevnog života (Freedman, 2003).

Pojašnjenje procesa

Opća shema (grafički prilog 1) započinje **univerzalnom temom** koja istražuje univerzalna etička i moralna pitanja; zadana univerzalna tema povezuje se s neposrednim životnim iskustvom učenika (praktičnim, emocionalnim, intelektualnim). 'Difuznom pažnjom', koja omogućava pristup udaljenim asocijacijama (Efland, 2002), iz iskustva se izlučuje sadržaj (afekti i emocije) i dobivamo **generativnu temu** proizašlu iz osobnosti svakog učenika. Time se potiče intrinzična motivacija i stvara volja koja se koristi da bi se, usmjerenom pažnjom, iz generativne teme krenulo prema ispunjavajućem završetku, krajnjem izrazu koji nosi određenu poruku pa se s pomoću njega komunicira. Najprije je bitno izlučiti ono što se želi iskomunicirati djelom. Iskustvo tada postaje estetsko jer dobiva potencijalni zaključak. Usmjeravanju pažnje na određeno iskustvo pomažu čimbenici koji ga personaliziraju i filtriraju. Dolazi do **sortiranja i reduciranja sadržaja** iz kojeg se izlučuje ideja, koja istodobno treba biti nova i korisna u određenom društvenom okruženju (Flaherty, 2005). Eisner (2002) kaže da su **ideje** destilirane slike u bilo kojoj formi ili kombinaciji formi te predstavljaju osobitosti iskustva. Nakon oblikovanja ideja traži se zastupnik koji može biti vizualan, auditivan, lingvističan. Proces uključuje „aktivnosti kao što su izmišljanje nečeg novog, oblikovanje, izvođenje, skladanje i planiranje" (Guilford, 1968, str. 78). Restrukturiraju se stari obrasci i izazivaju novi te dolazi do stvaranja novih ideja, razvija se lateralno mišljenje (De Bono, 1970, str. 11,12). To je cjelovit proces koji, prema Guilfordu (1968, str. 99-114), potiče kreativnost (proces povezivanja prethodnog iskustva s odgovorima na podražaje i stvaranje najmanje jedne jedinstvene kombinacije), originalnost (produkciju neuobičajenih, teško dostižnih, udaljenih i domišljatih odgovora), faktore fluentnosti (ideja, asocijacija, izražavanja), faktore fleksibilnosti (spontani, adaptivni), redefiniciju, osjetljivost na probleme, perceptualne sposobnosti, elaboraciju i kritički stav.

Izražavanje je, prema tome, aktivnost pojašnjavanja vlastitog iskustva, 'opredmećenje' osjećaja i misli. Ideje mogu biti predstavljene u bilo kakvom materijalnom ili simboličkom sustavu, dakle u bilo kojoj **formi**. Bez vanjskog opredmećenja iskustvo ostaje nepotpuno. Stoga ga je potrebno transformirati s pomoću **medij**a u **matrijal** i tako omogućiti dijalog s okolinom. Tijekom tog procesa učeniku se stalno skreće pažnja na vezu između onog što je učinjeno i proživljeno, na subjektivni osjećaj zadovoljstva radom i povezivanje tog osjećaja s rezultatom. Potencira se **refleksija** u kojoj sadašnji

sadržaj dobiva formu i čvrstoću, a stari, 'pohranjeni' sadržaj, doslovno je ponovno oživljen preko susreta s novom situacijom, promišljen i re-kreiran, a to nazivamo terapeutskim učinkom umjetnosti. Dolazi do izražaja i u trenutku kada (dovršeni) objekt stvara osjećaj zadovoljstva karakterističan za estetsku percepciju. Sličan proces odvija se i kod gledatelja. On re-kreira odnose koji se mogu usporediti s onima koje je proživio originalni stvaralac te dolazi do komunikacije vizualnim uratkom (prema Dewey, 1934/2005). U stvaralačkom nastavnom procesu učenike se potiče da ne samo intelektualnom i izvanjskom procjenom nego i izravnom percepcijom, intuitivnom inteligencijom i vlastitim osjećajem zadovoljstva procijene stupanj završenosti vlastitog i tuđeg rada. Eisner (2002) to naziva četvrtom kognitivnom funkcijom predočavanja. Otkrivanje završetka u procesu stvara iznenađenje koje je, samo po sebi, izvor zadovoljstva. To je iznenađenje iz kojeg se, najčešće, nešto nauči. Učenici koji usvoje taj kreativni način mišljenja na kraju obrazovnog procesa postaju samostalni u primjenjivanju usvojenog.

Metodologija istraživanja
Ispitanici

Istraživanje je provedeno u redovitoj nastavi predmeta Likovna kultura, od rujna 2012. do lipnja 2013. godine. Ovdje je predstavljen dio istraživanja koji obuhvaća tri peta razreda (63 učenika, N=63) iz tri obavezne osmogodišnje osnovne škole u Zagrebu, Hrvatska. Uzorak nije reprezentativan, nego prigodan.

Problem i ciljevi istraživanja

Osnovni problem istraživanja jest kako unaprijediti izvođenje nastavnog procesa u praksi s pomoću imerzivne metode.

Ciljevi istraživanja

1) postići napredak kod učenika: u razumijevanju postupaka nastanka umjetničkog djela (razvoj ideje, traženje odgovarajuće forme za kognitivni i emocionalni sadržaj, izbor medija i materijala); u povezivanju nastavnog sadržaja sa životom s pomoću vlastitog iskustva (generativne teme); u interesu za univerzalne teme i za likovno izražavanje; u originalnosti ideja u likovnom izražavanju; u upotrebi novih medija u likovnom izražavanju;

2) oblikovati smjernice za izvođenje nastavnog procesa likovne kulture prema imerzivnoj metodi.

Istraživačka pitanja

1) Kako, u okviru postojećeg Nastavnog plana i programa, implementirati imerzivnu metodu?

2) Kako prebaciti naglasak s dosadašnjeg koncepta nastave (ilustriranje ključnih pojmova u likovnim uratcima učenika) na poticanje kreativnosti (usvajanje principa kreativnog / lateralnog mišljenja, odnosno sheme kreativnog procesa)?

3) Kako potaknuti afektivni aspekt nastave: poticanje zanimanja za moralna i etička pitanja, oblikovanje pozitivnih stavova, stvaranje kritičkog stava prema okolini, sposobnosti povezivanja likovne djelatnosti sa životom tako da se postigne transferni i sublimirajući aspekt utjecaja kreativnosti na unutrašnji rast učenika, uspostavljanje vizualne komunikacije s okolinom?

4) Kako iskoristiti upotrebu novih medija i strategija novomedijske okoline učenika u njihovu likovnom / vizualnom izražavanju?

5) Utječe li primjena imerzivne metode u nastavi predmeta likovna kultura na učenikov interes za likovno izražavanje, samostalnost u radu, primjenu prethodno usvojenog u daljnjoj nastavi te na kreativnost (originalnost, fluentnost, fleksibilnost) i na kritičko promišljanje okoline?

Metoda, tehnike, instrumenti istraživanja

Metode istraživanja: kvalitativno akcijsko istraživanje (razvojni pristup u 4 koraka); tzv. performativno istraživanje (Vogt i sur., 2009, str. 26);

Tehnike istraživanja: anketiranje s upitnikom, ocjenjivanje, provjera znanja, intervjuiranje, opažanje, analiza sadržaja;

Instrumenti istraživanja osmišljeni za ovo istraživanje: anketni upitnik, ocjenjivačke ljestvice (za vizualne uratke), ljestvice stajališta Likertova tipa, test znanja i razumijevanja polazišne teme / motiva, intervju (nestrukturirani i polustrukturirani), opažanje (pismena i foto dokumentacija), pismene bilješke, pismeni i usmeni osvrti nastavnika; instrumenti specifični za performativno istraživanje.

Instrumenti zajednički svim akcijskim koracima:

pismena opažanja s prisustvovanja svakom nastavnom satu tijekom cijele nastavne godine. Prema Kirkpatricku(1954/2014) praćene su četiri razine procjene učenja: reakcija učenika (subjektivni osjećaj uspjeha i zadovoljstva procesom i radom, prednosti i slabosti zadataka, usklađenost s osobnim stilovima učenja, neverbalna komunikacija, odnos prema nastavnom i kreativnom procesu), ponašanje (način i opseg korištenja usvojenog sadržaja u daljnjem nastavnom procesu, promjena stavova i ponašanja, svijest učenika o vlastitim promjenama), rezultati (prezentacija i analiza vlastitih uradaka); bilješke o reakcijama nastavnika; rezultati zadataka (pismena, zvučna i foto dokumentacija); nestrukturirani intervjui s nastavnicima; polustrukturirani i nestrukturirani intervjui s učenicima; pismeno bilježenje analize radova (usvojenost i primjena nastavnog sadržaja, razumijevanje ideje i poruke svakog rada; interpretacija univerzalnih tema; odnos sadržaja i forme, medija i materijala); likovni / vizualni uradci učenika (analiza prijenosa simboličkih formi u materijalne forme pokretnih i nepokretnih slika, zvuka, žive akcije i digitalnog koda); ocjenjivačka ljestvica vizualnih uradaka; pismeni zadatci za učenike (vježbe za poticanje lateralnog mišljenja); pismeni i usmeni osvrti nastavnika; upitnik za učenike (usvojenost svih nastavnih sadržaja, razumijevanje univerzalnih tema, motivacija, stupanj zanimljivosti nastavnog sadržaja i novog načina nastave, primjenjivost nastavnog sadržaja u daljnjem životu, doživljaj učenja).

Specifični instrumenti za akcijske korake:

1. akcijski korak – pismeni i verbalni zadatci za učenike;

2. akcijski korak – performativni zadatci ludičkog i istraživačkog karaktera;

3. akcijski korak – bilježenje reakcija i rezultata učenika na pismene i usmene upute za rad u grupama (pismena rješenja učenika, skice, razvoj ideja); pismeno i zvučno bilježenje kreativnog procesa i analize radova (samoprocjena i samostalna refleksija tijekom kreativnog procesa; bilježenje samostalnih inicijativa učenika s obzirom na refleksije tijekom kreativnog procesa i prikupljanje dodatnog materijala za nastavu; samostalnost unutar grupa; suradnički odnos s ostalim članovima grupe);

4. akcijski korak – pismeni zadatci za učenike (proizvodnja određenog broja različitih ideja s ciljem usvajanja obrasca o potrebi stvaranja više ideja i biranja odgovarajuće ideje za poruku rada; klasificiranje primjenjivosti ideja, doslovnosti i udaljenosti asocijacija); bilježenje samostalnih inicijativa učenika s obzirom na refleksije tijekom kreativnog procesa i prikupljanje dodatnog materijala za nastavu; samostalnost tijekom primjene algoritamske sheme kreativnog procesa; osjetljivost na univerzalnu temu.

Postupak

Nasuprot zabrani mobitela u školama, učenicima je dopušteno da ih imaju uključene tijekom cijele nastavne godine i da se, prema potrebi, njima služe. Trebali su im za konkretne likovne zadatke, dokumentiranje kreativnog procesa i vizualnih uradaka, kao i za pretraživanje interneta s ciljem prikupljanja informacija i vizualnih materijala potrebnih za nastavni proces.

Svaki akcijski korak odgovarao je projektu u okviru kojeg je bio organiziran i obrađen nastavni sadržaj.

Po akcijskim koracima uvođene su sljedeće promjene:

1. **akcijski korak:** *uvođenje nastavnih metoda (Mattes, 2007) i strategija (Marzano, Pickering, Pollock, 2006) primjerenih tematici, strategija suvremene novomedijske umjetnosti primjerenih formalnom aspektu zadataka i vježbe za poticanje lateralnog mišljenja. Navedeno je u nastavu uvedeno s pomoću verbalnih, pismenih i performativnih zadataka, kao i upotrebom komunikacijskih tehnologija (mobiteli).*

Prvi akcijski korak / projekt uključivao je nastavnu temu TOČKA I CRTA i jedinice iz nastavnog plana i programa: Obrisne crte, tok i karakter crta; Strukturne točke i crte; Strukturne crte.

Trajanje projekta: 6 nastavnih sati.

Uvođenje univerzalne teme: Uvod u tematiku afirmativne komunikacije; načini komunikacije kao izražavanje misli i osjećaja; vizualna komunikacija;

Generativna tema – povezivanje s osobnim iskustvom učenika: povezivanje s primjerima iz svakodnevnog života učenika (razred, škola, prijatelji....); pismeno bilježenje događaja, stvarnog ili izmišljenog (tehnika za poticanje lateralnog mišljenja);

Postavljanje cilja i izlučivanje ideje: izlučivanje osnovnog osjećaja iz priče s ciljem njegova neverbalnog prikazivanja; razgovor o poruci;

Traženje odgovarajuće forme za zadani sadržaj; Medij i materijali: likovni zadatak – vizualna poruka crtom i točkom – sms – umjetnost s pomoću novomedijskih tehnologija; *(primjer:* tuga %[˙I¨].!*_*,?? }!!!!-----} ɔ...). Vizualiziranje apstraktnih pojmova (osjećaja) s pomoću tradicionalnih medija, crteža i kolaža;

Refleksija i analiza; remedijacija

Učenici su, tijekom procesa praktičnog rada, poticani na refleksiju i analizu vlastitih radova, kao i na razmišljanje o tome koji će od ponuđenih materijala upotrijebiti za izražavanje onog što su predvidjeli. Analiza vizualnih uradaka s pomoću unaprijed pripremljenih zadataka i bilježenja odgovora na zadatke; rekonstrukcija rezultata – obrada nastavnog sadržaja. Provjera usvojenog.

Slika 1.

2. **akcijski korak:** *poticanje intrinzične motivacije kod učenika (generativne teme), uvođenje jasnih pravila o usmjeravanju emocionalnog i kognitivnog sadržaja učenika u odgovajuću formu i medij, zatim strategije suvremene novomedijske umjetnosti primijenjene u obradi nastavnog sadržaja.*

Drugi akcijski korak / projekt uključivao je nastavnu temu BOJA i jedinice iz nastavnog plana i programa: Svjetlosne vrijednosti čistih boja; Čiste boje, kontrast toplo-hladno; Komplementarni kontrast. Trajanje projekta: 6 nastavnih sati.

Uvođenje univerzalne teme: Nadovezivanje na univerzalnu temu iz 1. projekta o komunikaciji;

Generativna tema – povezivanje s osobnim iskustvom učenika: performativni zadatci vezani uz primjene boje u životu učenika i igre asocijacija u kojima se boje povezuju s emocijama; pismeni zadatci predstavljanja najdraže boje (tehnika za poticanje lateralnog mišljenja);

Postavljanje cilja i izlučivanje ideje: izlučivanje osnovne ideje i poruke svake priče; razgovor o vizualiziranju te ideje s pomoću boja;

Traženje odgovarajuće forme za zadani sadržaj; Medij i materijali: likovni zadatak – vizualiziranje osobne priče bojom, prikazivanje dominantnih emocija u priči, tehnika tempere;

Refleksija i analiza; remedijacija: Učenici su, tijekom procesa praktičnog rada, poticani na refleksiju i analizu vlastitih radova, kao i na razmišljanje o tome koji od sljedećih koraka mogu poduzeti. Analiza vizualnih uradaka s pomoću unaprijed pripremljenih zadataka i bilježenja odgovora na zadatke; rekonstrukcija rezultata – obrada nastavnog sadržaja. Provjera usvojenog.

Slika 2.

3. **akcijski korak:** *uvođenje samoprocjene i samostalne refleksije tijekom kreativnog procesa.*

Treći akcijski korak / projekt uključivao je nastavnu temu PLOHA i POVRŠINA i jedinice iz nastavnog plana i programa: Statične i dinamične plohe; Likovi na plohi; Redefinicija plohe; Grafička modelacija; Ritam oblika i tekstura; Slikarske teksture.

Trajanje projekta: 12 nastavnih sati.

Uvođenje univerzalne teme: Nadovezivanje na univerzalnu temu iz 1. projekta o vizualnoj komunikaciji; povezivanje s temom ekologije i zdravlja; odnos pojedinca i društva te koliko svaki pojedinac može pridonijeti općem napretku u smislu očuvanja neposrednog okoliša; kako utjecati na druge u cilju jačanja svijesti o važnosti brige za okoliš;

Generativna tema – povezivanje s osobnim iskustvom učenika: pismeni zadatci vezani uz vlastito iskustvo na zadanu tematiku (tehnika za poticanje lateralnog mišljenja);

Postavljanje cilja i izlučivanje ideje: izlučivanje osnovne ideje i poruke svake priče; razgovor o vizualiziranju te ideje i poruke u obliku svojevrsnog plakata upozorenja za ostale učenike u školi;

Traženje odgovarajuće forme za zadani sadržaj; Medij i materijali: likovni zadatci koji prethode glavnom zadatku: osmišljavanje i izrada društvene igre; docrtavanje zadanog detalja; glavni likovni zadatak: svaka grupa dobiva posebni zadatak (s formalnog i tematskog aspekta) prema kojem vizualizira izlučene ideje u plakat s jasnom porukom;

Refleksija i analiza; remedijacija: Učenici su, tijekom procesa praktičnog rada, poticani na samostalnu refleksiju i analizu vlastitih radova, kao i na refleksiju tuđih radova. Analiza vizualnih uradaka s pomoću unaprijed pripremljenih zadataka i bilježenja odgovora na zadatke; rekonstrukcija rezultata – obrada nastavnog sadržaja. Provjera usvojenog.

Slika 3.

4. **akcijski korak:** *uvođenje djelomične samostalnosti učenika u osmišljavanju i vođenju vlastitih projekata: učitelj postaje medijator, a učenici usvajaju i samostalno primjenjuju algoritamsku shemu kreativnog procesa; osjetljivost na univerzalne teme (samostalnost u izboru, osjetljivost za kontekst, empatični uvid, fleksibilnost, kritički stav prema okolini).*

Četvrti akcijski korak / projekt uključivao je nastavnu temu MASA / VOLUMEN i PROSTOR i nastavne jedinice: Osnovni trodimenzionalni oblici; Proporcije trodimenzionalnih oblika (tijela) u prostoru; Složene prostorne strukture i konstrukcije. Trajanje projekta: 6 nastavnih sati.

Uvođenje univerzalne teme: razgovor o poziciji učenika i poziciji djece u drugim dijelovima svijeta, o pravu i mogućnostima školovanja (analiza primjera);

Generativna tema – povezivanje s osobnim iskustvom učenika: odnos učenika prema školi; pismeni i performativni zadatci (tehnika za poticanje lateralnog mišljenja);

Postavljanje cilja i izlučivanje ideje: izlučivanje osnovne ideje i poruke svakog rada; razgovor o vizualiziranju te ideje i poruke u obliku animiranog filma; izrada *storyboard-a*;

Traženje odgovarajuće forme za zadani sadržaj; Medij i materijali: likovni zadatak – fotografsko snimanje kadrova animiranog filma;

Refleksija i analiza; remedijacija: Od učenika se očekivala samostalna refleksija i analiza vlastitih radova, a zatim primjena etapa kreativnog procesa. Analiza vizualnih uradaka i rekonstrukcija rezultata – obrada nastavnog sadržaja. Provjera usvojenog.

Slika 4.

Rezultati i interpretacija

Instrumentima opažanja i bilježenja nestrukturiranih intervjua s nastavnicima, polustrukturiranih i nestrukturiranih intervjua s učenicima, dobiveni su podaci o dinamici i strukturi nastavnog procesa i reakcijama učenika na zadatke. Rezultati praćenja učenika potvrđuju pozitivne reakcije i visoku intrinzičnu motivaciju za nastavu po imerzivnoj metodi u sva četiri akcijska koraka, pogotovo tijekom vizualiziranja vlastitih kognitivnih i emocionalnih sadržaja. Rezultati dobiveni instrumentima pismenih (vježbe za poticanje lateralnog mišljenja i razvoj ideja), performativnih i ludičkih zadataka pokazuju da su ih svi učenici prihvatili kao sastavni dio nastave te su prihvatili navođenje u definiranju jasnih vizualnih poruka. Instrumentima koje su predstavljali likovni / vizalni uradci učenika, ocjenjivačka ljestvica vizualnih uradaka, pismeni i usmeni osvrti nastavnika dobiveni su rezultati koji potvrđuju uspješnu realizaciju vizualnih zadataka kod većine učenika, iz kojih su lako iščitane ideje i poruke, a rješenja su, u skladu s ciljevima, izrazito individualizirana i originalna. Postotak realiziranih i definiranih radova raste tijekom akcijskih koraka u smislu većeg broja nedovršenih radova u prvom akcijskom koraku i svih dovršenih radova u trećem i četvrtom koraku. Instrumentima bilježenje reakcija i ponašanja učenika, likovni / vizualni uradci učenika (analiza prijenosa simboličkih formi u materijalne forme pokretnih i nepokretnih slika, zvuka, žive akcije i digitalnog koda) dobiveni su podaci o stupnju usvojenosti algoritamske sheme kreativnog procesa. Instrumentima bilježenja reakcija i rezultata učenika na pismene i usmene upute za rad u grupama (pismena rješenja učenika, skice, razvoj ideja), bilježenja samostalnih inicijativa učenika u pogledu refleksija tijekom kreativnog procesa, prikupljanjem dodatnog materijala za nastavu i samostalnost unutar grupa, utvrđeno je da se učenici tijekom trećeg akcijskog koraka samoinicijativno služe internetom na mobilima da bi proširili tekstualne i vizualne informacije o zadanoj temi, a u četvrtom se koraku samostalno služe mobilima s ciljem nalaženja mogućnosti za što bolje ostvarenje zadatka. Tijekom realizacije zadataka u svim je grupama zabilježena samostalnost u odlučivanju o odnosu sadržaja i forme, samoorganizacija u vezi s disciplinom rada i refleksije, razgovorom o jasnoći poruke i formalnom kvalitetom radova. Primijećen

je porast empatije među učenicima, suradnje i uvažavanja. Instrumentima pismeni zadatci za učenike (produkcija određenog broja različitih ideja .....) tijekom četvrtoga akcijskog koraka utvrđeno je usvajanje obrasca o stvaranju više ideja i biranja odgovarajuće ideje za poruku rada, samostalnost učenika u odlukama o formalnim aspektima radova i određivanju etapa procesa rada, povezivanja i uključivanja gradiva iz drugih predmeta i nastavnih tema, kao i samoorganiziranje u podjeli zadatka i njihovoj realizaciji (npr. izglasavanje ili dogovor). Bilježenje analiza u sva četiri akcijska koraka ukazuje na porast želje za ravnopravnim sudjelovanjem u analizi tuđih radova i za detaljnom analizom vlastitog rada. U analizi na kraju četvrtoga akcijskog koraka učenici se samostalno koriste nastavnim sadržajem i služe se ključnim pojmovima. Neki učenici samostalno rade kod kuće, a objašnjenja tih radova potvrdila su potrebu za korištenjem terapeutskog učinka umjetnosti u nastavi (Bilić, 2012). Instrumentima pismeno bilježenje analize radova i usmena analiza radova (usvojenost i primjena nastavnog sadržaja, razumijevanje ideje i poruke svakog rada) uspostavljena je analiza više slojeva radova (različite razine značenja i percepcije): učenici su se svjesno služili simbolima, bližim i daljim asocijacijama i kodovima s pomoću kojih su izražavali osnovnu ideju i poruku vlastitog rada, s porasću samostalnosti od prvog do četvrtog akcijskog koraka. Tijekom analize učenici su čitali tematiku radova najprije na intuitivnoj razini, a zatim su primjenjivali usvojene informacije i znanje u formalnoj analizi i remedijaciji (Bolter i Grusin, 2000). Analiza je obuhvaćala refleksiju cijelog procesa rada, analizu ideja svakog rada i njihova konteksta u stvarnom životu, način transponiranja ideje u formu te povezivanje s nastavnim sadržajem. Instrumentom upitnik za učenike (motivacija, stupanj zanimljivosti nastavnog sadržaja i novog načina nastave, primjenjivost nastavnog sadržaja u daljnjem životu, doživljaj učenja) prikupljeni rezultati pokazuju visok postotak usvojenosti nastavnog sadržaja i razumijevanja univerzalne teme, visoku motiviranost i prihvaćanje novog načina nastave, ali i slabo vjerovanje u primjenjivost nastavnog sadržaja u svakodnevnom životu. U Likertovim skalama, u svim razredima, za sva četiri projekta, prevladavaju odgovori: na nastavi mi je lijepo; naučio/la sam i zanimljivo mi je; puno sam naučio/la, zanimljivo mi je i zabavno; ponekad mi je zanimljivo; dobro će mi doći u svakodnevnom životu. U nekoliko slučajeva pojavljuje se i odgovor: ponekad mi je zanimljivo i zabavno, nisam siguran/na što sam naučio/la. Rezultati ukazuju na sljedeće promjene: usvajanje i primjena sheme kreativnog procesa prema imerzivnoj metodi (poticanje kreativnog/lateralnog mišljenja); usvajanje tehnika za razvoj i produkciju ideja; osjetljivost za etička i moralna pitanja; formuliranje jasnih vizualnih poruka; identifikacija s vlastitim vizualnim uratcima; prihvaćanje i usvajanje zakonitosti projektne nastave. Sve predviđene promjene su ostvarene.

U završnoj refleksiji i analizi učenici su se složili da je nastava provedena na nov način zanimljiva i zabavna, ali da stalno moraju razmišljati i biti aktivni, na što nisu navikli.

Zaključak

Rezultati istraživanja na ciljanom uzorku i *case studies* omogućuju uvođenje alternativne metode kojom bi učenici dobili veći udio u planiranju i ostvarivanju nastave usredotočene na društvene teme, emocionalno prihvaćanje, identifikaciju s vlastitim radom, mogućnost kreativnog izražavanja, osvještavanje i vrednovanje procesa rada. Potaknuta je motivacija učenika, kreativni princip mišljenja, sublimativni aspekt kreativnog čina, senzibilitet za moralna i društvena pitanja, propitivanje vlastite sredine, stvaranje stavova i djelovanje. Uvedene su i promjene u interesu većeg stvaranja originalnih ideja u likovnom / vizualnom izražavanju s pomoću strategija suvremene novomedijske umjetnosti, kao posrednicima prijenosa zamisli u rezultat procesa (postupanje s formama, materijalima i medijima) i novomedijske okoline učenika. Novi pristup nastavi, prema imerzivnoj metodi, nudi odgovor na pitanje kako se s pomoću etapa kreativnog procesa, strategija suvremene novomedijske umjetnosti, poticanja kreativnog mišljenja, imerzivnog doživljaja stvaranja i sublimacije (nalaženja odgovarajuće forme za zadani sadržaj) u stvaralačkom procesu nastave likovne kulture može unaprijediti učenikov uvid u vlastite misli, osjećaje i iskustvo, potaknuti komunikacija s okolinom i razviti učenikov kritički stav prema toj okolini (vizualna umjetnost kao način izraza, komunikacije i konstrukcije identiteta). Analizom svih rezultata ustanovljena je uspješna primjena imerzivne metode u redovitom nastavnom procesu prema Nastavnom planu i programu, a opis postupka i analiza rezultata sadrže odgovore na sva istraživačka pitanja.

Do sada u likovnoj didaktici nije postojala univerzalna metoda koja bi bila primjenjiva na svim obrazovnim razinama i u svim obrazovnim sustavima te obraćala pažnju na odgojni aspekt i terapeutski učinak umjetnosti. Učenici, sudionici istraživanja, stekli su ključnu metakompetenciju, kreativni princip mišljenja, kojim mogu vizualno komunicirati s okolinom te je aktivno mijenjati.