

Integrating ICT with Drama Activities

Zrinka Vukojević^{1*}, and Nataša Rogulja²

- ¹ Assistant Professor, Faculty of Teacher Education University of Zagreb, Department of Croatian Language, Literature, Drama and Media Education
- ² Senior Lecturer, Faculty of Teacher Education University of Zagreb, Department of Information and Communication Sciences

ARTICLE INFO

Keywords:

Drama Activities, ICT, Implementation, Methodical Scenario, Teaching Tool

ABSTRACT

As a teaching tool, drama contributes to the development of understanding the physical, emotional, intellectual, aesthetic, social, moral, and spiritual dimensions of human experience. Apart from developing communication skills, drama encourages confidence, self-esteem, cooperation, empathy, responsibility, problem-solving management, creativity, and imagination. The implementation of ICT should be used in a complementary way and not as a substitute for dramatic activities to create an empowering and enriching educational environment. The use of ICT implies the development and presentation of activity results, as well as hardware and/or software support for enhancing the drama environment. This paper presents a methodical scenario that purposefully incorporates ICT possibilities without disturbing the natural flow of drama activities.

1. Introduction

Upbringing and education are processes that should support pupils in actively learning about the world, building attitudes and moral values, enriching their characteristics, and coping with life. In such an educational environment, art is indispensable. Art tends to find a place to encourage pupils to realise their creative potential purposefully. By strengthening the influence of art, emphasising its importance, and connecting it more with overall education, abstract thinking is encouraged, which significantly helps us gain a better insight into the world around us and a deeper understanding of the prevailing phenomena (Chessin & Zander, 2006).

According to Krušić (2016), art education, as a complex educational field, combines different practices and goals. Two directions of art education are generally accepted: education for art and education through art. The first direction refers to mastering different types of artistic expression and design with an emphasis on upbringing and education for understanding, reception, acceptance and dealing with art. The second direction consists of forms of upbringing and education in which art media is used to achieve educational goals. Education through art is a form of experiential learning where various educational contents are taught through art activities (Krušić, 2018).

Cite this article as:

Vukojević, Z., & Rogulja, N. (2025). Integrating ICT with Drama Activities. European Journal of Teaching and Education, 7(2): 87-99. https://doi.org/10.33422/ejte.v7i2.1495

© The Author(s). 2025 **Open Access.** This article is distributed under the terms of the <u>Creative Commons Attribution 4.0 International License</u>, <u>which permits</u> unrestricted use, distribution, and redistribution in any medium, provided that the original author(s) and source are credited.



^{*}Corresponding author's E-mail address: rogulj@gmail.com, https://orcid.org/0000-0003-3322-947X

In the Republic of Croatia, fine arts, music, and dance are represented in art schools; music and visual arts are subjects taught in primary and secondary school. Drama art is only a part of Croatian language classes and an extracurricular activity.

Drama art is complex and multidimensional because it simultaneously occurs on several levels of intrapersonal and interpersonal action, behaviour, and experience. At its core, it is an aesthetic activity in which the areas of real-life touch, overlap, and merge with the areas of play and fictional, imaginary actions and behaviours. Learning and teaching drama, as well as learning and teaching using drama methods, today, in the most advanced educational systems in the world, is covered by the term drama education. Drama education is a set of learning and teaching methods that use drama expression as a human ability used during maturation and growing up to understand and interpret events, relationships, beings, and phenomena that surround pupils (Krušić, 2016, p. 23). In drama education, as in drama, pupils look for answers to existential questions through appropriate activities. Therefore, drama helps develop children's personalities and prepares them to meet reality. The main goal of drama education is to develop imaginative and creative pupils' abilities. When creativity is released in one area, children will be transferred to all areas of human activity (Read, 1974).

2. Drama Activities

The basis of drama education is play. Play is universal, familiar to all children, instinctive and an essential part of growing up and forming a personality. While playing, the child develops cognitive, emotional, motor, social, communication, and language abilities. Studying reality, children imitate in a childlike game. They communicate non-verbally and verbally, move, imagine, invent, and create their imaginary world in which they mirror the real world as they see it (Duran, 2011).

The play is characterised by its complexity of structure and changeability of roles. It is suitable for research and experimentation in processes the child is not yet up to in real life. Plays can be divided into functional, symbolic, and rules-based games (Duran, 2011).

Functional games are defined as games with new motor, sensory and perceptual functions that mature in the child. The child perceives games with rules as ready-made, masters them as part of culture, and can create new ones. Symbolic games are associated with personality development; most psychologists view them as a developmental phenomenon. Piaget observes them as a part of cognitive development, connecting them with the structure of thought activities (Duran et al., 1988). Symbolic games are also called imaginative, fiction, role-play, and drama games (Duran, 2011).

The symbolic game represents a natural semiotic system in which there is a combination of speech, symbolic gestures, symbolic objects, and symbolic persons — roles played by children. Various semiotic means are used in it (Duran, 2011). In drama or symbolic games, the child creates symbols for their ideas, feelings, and problems. There is no symbolic game without communication. In the symbolic game, the action has a double meaning — it is both what it is and what it symbolises. In the game, the child takes the role of an adult and creates a game situation, through the transfer of meaning from one object to another, conditionally shows the activity of adults, modelling the motives, goals, and norms of adults (Elkonin, 1975, according to Duran et al., 1988).

In the game, the child actively engages in all his or her possibilities; in it, she/he is a self-aware, active subject. Wertsch (1984, according to Duran, 2011) states that it is not enough to determine when a form of behaviour should be encouraged but also how to do it. Unlike Piaget, who believed that play appears spontaneously, Vygotsky emphasises the role of the

social and cultural environment. Children learn to pretend under the guidance of experts. It is essential to support their discovery of the world. All of the above are educational goals of drama games.

A drama game is a creative activity in which the players themselves find and determine the content and search for an adequate expression in the creative process (Kunić, 1990). In drama activities, the child learns and acquires the basic concepts of drama and stage expression, creates drama action and drama situations, forms monologues and dialogues, describes the appearance and behaviour of characters, and imagines and describes the stage space (Škuflić-Horvat, 2004, p. 86).

In drama activities, children and young people develop creativity and self-discipline. They gain experience solving various problems through the creative process. They also develop knowledge and self-knowledge. Activities are conducted to create a group, socialise, communicate, and develop performance skills.

Drama games are organised activities in which performers are transported into certain situations, characters, phenomena, or things using words, movements, and sounds. In such activities, participants are not bound by rules but are free in their search for better expression, so at a certain creative moment, they can themselves become creators of a new form of game. Thus, drama games and the joy of playing encourage players to be creative (Ladika et al., 1983).

2.1 Research on the Integration of Drama Activities in Educational Settings

Many authors discuss theoretical considerations and research on the effectiveness of drama activities in education. Research consistently supports integrating drama activities in educational settings due to their multifaceted benefits. These activities enhance academic and cognitive skills and foster social, emotional, and creative development.

In language education, drama activities are used in researching pupils' language competencies, whether it is about mastering their mother tongue or the second language (Butterfield, 1993; Lutzker, 2007; Piazzioli, 2010; Arslan & Çağdaş, 2011). Studies have shown that drama activities can significantly improve literacy skills and oral communication. Role-playing, improvisation and script work help pupils understand complex texts, improve their vocabulary, fluency and confidence in speaking and enhance reading comprehension (Goble et al., 2021; Cawthon et al., 2011).

Research indicates that integrating drama activities into the curriculum can improve academic performance across subjects. According to Dorion (2009), drama activities facilitate pupils' understanding of abstract concepts in the fields of chemistry, biology, and physics. Sagirli's (2014) research showed that pupils had greater personal, professional, and social well-being when drama activities were applied in teaching mathematics.

Through drama activities, political awareness and understanding of social problems and social justice are taught. Pupils think critically about characters, plots, and conflicts, which promotes problem-solving skills and the ability to view situations from multiple perspectives (Shelton & McDermott, 2011).

Drama activities promote empathy, cooperation, and social interaction among students. Participating in role-playing and simulation teaches pupils to understand different perspectives and work effectively in teams. This can lead to a more inclusive and supportive classroom environment, benefiting pupils' emotional and social development (Deasy, 2002).

Integrating drama activities into education can significantly boost pupil engagement and motivation. The interactive and dynamic nature of drama activities makes learning more enjoyable and relevant, encouraging pupils to take an active role in their education. This increased engagement can translate into better attendance and participation rates, contributing to overall academic success (Catterall, 2009).

Drama activities have been linked to improved cognitive abilities, such as enhanced memory, problem-solving skills, and creativity. Heathcote and Bolton's (1995) research showed how drama activities could be used to explore complex social and moral issues, helping pupils develop deeper self-understanding. Overall, integrating drama activities into educational settings offers a comprehensive approach to learning that supports academic achievement and the development of essential life skills. These benefits underscore the importance of incorporating arts-based education to create a well-rounded and effective learning experience for pupils.

3. Integrating ICT with Drama Activities

In the 21st century, educational environments have been infused with digital technologies across different subjects, bringing new teaching methods and learning styles. Drama education is no exception. In their state-of-the-art study, Zakopoulos et al. (2023) presented a literature review of academic studies published between 2014 and 2023 on applying digital technologies in drama/theatre education to cultivate students' sustainability consciousness and improve 21st-century educational skills. Results of the study demonstrated the 'evolution' of digital drama education on a global scale at all educational levels, using Internet service technologies, digital tools and applications, multimedia, and innovative digital technologies, such as virtual and augmented reality, artificial intelligence, and robotics.

In one study with pre-service student teachers, an online drama and theatre classroom in the form of breakout rooms, using Zoom technology, was successfully used to perform dramatic activities in a virtual space and encourage collaboration among peers, creativity, and peer-assisted learning (Irugalbandara, 2021).

In the small-scale case study on the impact of using blogs in teaching theatre/drama courses in schools, online/digital and live drama activities were based on the blog's material, which increased interactivity and collaboration between teachers and students. Blogging also provided opportunities for further development of teachers' and students' dramatic and digital skills within or outside the school environment (Fanouraki & Zakopoulos, 2023).

Important methods applied in teaching online drama are role-play (Hatton & Nicholls, 2018; Liyanawatta et al., 2022) and digital storytelling (Tzima et al., 2020; Křepelková et al., 2019). A case study conducted in a secondary school in Sydney, Australia, as part of a larger international drama project entitled 'The Water Reckoning Project', explored and revealed the positive effects on the process of learning through drama and digital technologies in the context of local and global sustainability education (Hatton & Nicholls, 2018). As actors and researchers, students created characters and participated in sustained role plays, engaging themselves with important issues on sustainability and creating digital content addressing other students on a global scale. The study emphasises the importance of teachers who serve as 'digital curators' for guiding students through their learning experience between real-life environments and virtual space.

In preschool education, drama is essential to children's intellectual development. To improve teachers' drama education and children's awareness of drama, Gong (2022) introduced a new

teaching method through three-dimensional multimedia human-computer interaction technology for preschool children, focusing on voice interaction technology, image interaction technology, and somatosensory interaction technology. With proper guidance from teachers and with the help of interactive devices, drama activities were more dynamic, with an enriched sense of the picture and children's ability to easily immerse themselves in the learning situation. The experimental results showed that most teachers were very satisfied with integrating drama art, human-computer interaction technology, and speech synthesis technology into preschool children's drama education.

Implementing digital tools, applications and online learning platforms in drama/theatre education was especially seen and 'forced' during difficult years of social and cultural separation caused by the COVID-19 global pandemic of 2020 (Zakopoulos et al., 2023). In a short period, teachers and students became screenwriters, actors and directors of digital drama arenas filled with various educational content (interactive text, images, animations and videos, presentations, games, etc.), trying to find the most suitable way for introducing and conducting drama in digital surroundings and adopt digital technologies in making and sharing drama performances in a collaborative and organised way. This also brought more attention to the current development and implementation of teachers' and students' digital skills and competencies on all educational levels.

The post-COVID period showed an 'urgency' for drama educators to adopt interdisciplinary collaboration with other disciplines, such as games, virtual/mixed reality, and artificial intelligence aiming to provide immersive opportunities and prepare students and drama teachers for similar future crises or disruptions of the learning process", in order to be "harmonised with the technology boom and the pedagogical shift to a more student-centred and engaged pedagogical scheme (Zakopoulos et al., 2023, p. 20).

Through development of innovative emerging technologies, such as gaming platforms, virtual/augmented/mixed reality, motion capture technology, artificial intelligence/robots, smartphone apps (Webb & Layton, 2023), drama participants (teacher, students) now have the ability to partially or completely transform and transfer their real-live performances to digital dimensions, creating stories and solving problems from fictional situational learning activities or real-life scenarios (Gregory et al., 2015; Liyanawatta et al., 2022, Web & Layton, 2023; Zakopoulos et al., 2023).

However, in the current and evident transformation of drama education, it is important that the 'physical nature' of drama activities is not substituted with digital experiences. Digital performance should not be understood as a means to replace or substitute traditional theatrebased production but rather as an alternative format to complement and support the current practices (Webb & Layton, 2023, p. 43).

ICTs can be used to create drama in school contexts as a complementary factor to live drama processes (Davis, 2010, p. 209). In this context, Davies (2010) emphasises a supportive combination of technology and live learning experiences because students and teachers will unlikely trade the dynamic live processes of the drama classroom with what they perceive to be sedentary online experiences of a restricted nature (Davis, 2010, p. 213).

Strakšiene and Baziukaite (2009) demonstrated how suitable integration of ICT, written and spoken language, and drama (moving, mimics, and emotions) can improve the development of third-form pupils' communicative competencies during drama classes. In their study, children's non-digital activities included creating, writing and reading dialogues. At the same time, ICT was used for reading materials, watching photo-mimic presentations, finding a matching description of emotion, watching digital videos without the sound of recorded

dialogues, typing the text of created dialogues, recording and playing dialogues (Strakšiene & Baziukaite, 2009, pp. 283–286).

The critical question in the teaching process is how to get pupils to learn the teaching content. A teacher's success depends significantly on the organisation, methods, and means of working with pupils, whether in a real-life or digital educational environment.

4. Representation of a Methodical Scenario with Implementation of Drama Activities and ICT

The methodical scenario represents how drama activities can improve pupils' communication skills, critical thinking and problem-solving, teamwork, empathy towards diversity, creativity, cultural awareness, sensitivity, and humour. The goal of this methodological scenario is for the pupils` to interpret a representative text using drama activities that shape and reshape their personal experiences, open new perspectives, and develop their literary taste, imagination and reflection of the world, themselves and others. The logical sequence of the selected activities is consistent with the learning outcomes and content.

Proposed drama activities can be applied in genuine language use and humanistic and social fields to develop understanding, analyzing, memorizing, reproducing and reconstructing, rehearing and performing, creating and personalizing.

The implementation of ICT enhances drama activity by adding a digital dimension (affecting senses and attention) without destroying the essence of the drama activity. The goal is not to cognitively burden the student with digital technology, nor is the focus solely on technology, but on the adequate application of technology in accordance with drama activities. During the drama activity, which requires complete pupils' engagement, using ICT is a secondary activity (background music, sound effects, pictures, video recording, etc.) that aims to refine and upgrade the drama environment.

After each drama activity, pupils focus on ICT activities in order to create, share, present, evaluate, discuss and reflect on personal and group performance-making processes and post-performance experiences, which are used to recall the drama experience. Such an approach simultaneously develops digital competencies for modern society.

The researched available literature does not mention similar examples and research that indicate this type of implementation using a methodical scenario.

From the organizational point of view, the obstacles are the large number of students in the classroom, time, and the fear of public speaking.

From a technical and operational point of view, the obstacles are availability of open-source digital tools and applications (e.g. text, image, audio and video editing); availability of digital devices of multimedia systems (e.g. PC, laptop, image projector, smartphone, tablet, video camera); teacher and pupils' ICT competencies to use digital tools and operate with digital devices; offline and online environments for creating, sharing, publishing, teaching and learning purposes; pupils privacy and data protection rights (offline and online education records of drama activities and personal information) and family educational rights (written consent from parents is necessary for enrolling the pupil in digital drama activities and giving the ability to review, amend, and control who can access the education records for learning and teaching purposes).

In the proposed methodical scenario, the interpretation of Astrid Lindgren's children's novel Pippi Longstocking will be presented using drama activities integrated with ICT (Table 1). The methodical scenario illustrated below shows how drama activities can improve pupils'

communication skills, critical thinking and problem-solving, teamwork, empathy towards diversity, creativity, cultural awareness, sensitivity, and humour.

Table 1. Methodical scenario – interpretation of the children's novel Pippi Longstocking by Astrid Lindgren.

Tonic: A	Lindoren	"Pippi Longstockin	σ"
Topic. 71.	Linuxici	I ippi Dongsiockin	-

Learning outcomes:

Croatian language

- The pupil talks and speaks in accordance with the communication situation.
- The pupil writes texts according to a simple structure.
- The pupil expresses himself/herself creatively stimulated by the text and experiences.
- The pupil extracts important information using a variety of age-appropriate sources.

Expectations of cross-curricular topics:

Personal and social development

- Develops self-image.
- Controls their emotions and behaviour.
- Develops personal potentials.
- Develops work habits.
- Develops communication skills.

Learning to learn

- The pupil applies learning approaches and solves problems in all areas of learning with the teacher's monitoring and support.
- The pupil distinguishes facts from opinions and can compare different ideas.
- The pupil uses creativity to shape his ideas and approach to problem-solving.
- The pupil distinguishes facts from opinions and can compare different ideas.
- The pupil self-evaluates the learning process and its results, independently and with the teacher's encouragement, and evaluates progress.

ICT application – examples*

• The pupil expresses positive and high expectations and believes in his/her success in learning.

Entrepreneurship

Drama Activity

• Develops an entrepreneurial idea from concept to realisation.

Civic upbringing and education

- Acts in accordance with human rights in everyday life.
- Promotes the rules of a democratic community.
- Participates in decision-making in a democratic community.

Description of the activity

Promotes solidarity in the school.

The educational environment's set is designed from digitally projected novel scenes on the classroom wall. Pupils use digital tools and applications to create scenes and characters. Digital devices are used to engineer interactive multimedia systems for set design (lighting and sounds).				
Put the story in order	Dictate the sentences of the novel out of sequence. Pupils need to predict whether the sentence is from the beginning, middle, or end of the novel and write the sentences correspondingly at the top, middle, or bottom of the page. Ask pupils to number each sentence according to the order they think the text is in. Pupils compare their sentence order with their neighbour's (or with another group if they work in groups). Pupils reveal the proper order.	During dictation, the teacher reproduces background music and sound effects using digital tools and devices, adding auditory depth to the drama activity. Before comparing their sentence order with peers, pupils create digital versions of the sentences for presentation and learning purposes.		
Mime	Pupils are divided into groups. Each group is given one word: "friendship," "fearlessness," or "generosity." Each group needs to mime a situation from the novel that they can associate with the	Each group records the performances of other groups. After the drama activity: 1) each group member shares his/her experience; 2) recordings are edited and produced as		

	given word.	digital video; 3) videos are published for the discussion on the quality of the set design, and personal and group reflections of the performance making process and post-performance experiences.			
Role on the wall	Pupils outline a body on a large sheet of paper. They draw three bodies (Pippi, Tommy, and Annika). Pupils write down the internal and external characteristics of the characters.	After the drama activity: 1) pupils create digital versions of their sketches; 2) digital sketches are published on the web page (prepared by teacher or professional), with hyperlinked nature of internal and external characteristics of each sketch, which can be used for future presentation, discussion and learning purposes.			
Bingo definitions	Pupils need to write definitions for "typical" and "unusual". They should give examples from the novel that relate to the given words.	After the drama activity, pupils use digital tools to 1) write and present their definitions and examples and 2) draw/design novel scenes used as examples related to given words (visualisation process).			
classroom wall. P (Pippi, store, dri	The educational environment's set is designed from digitally projected scenes of given situations on the classroom wall. Pupils use digital tools and applications to create scenes and characters for given situations (Pippi, store, driver, bus, waiter, restaurant, doctor, city, etc.). Digital devices are used to engineer interactive multimedia systems for set design (lighting and sounds).				
Simulation	Pupils in groups simulate situations/behaviours that are typical and unusual.	Each group records peers' performances in given real-life situations for post-discussion and self-evaluation purposes of			
Roleplay	Pupils are divided into groups. Each group member is assigned a role according to the setting. One pupil in every group is Pippi. The pupil in the role of Pippi has to show how she/he would behave in a given situation: Pippi in the store. Pippi is waiting for the late bus. Pippi orders a meal in a restaurant. Pippi is visiting an ophthalmologist. Pippi is a tourist in a big city.	presented (nonverbal and verbal) communication skills, critical thinking and problem-solving, teamwork, empathy towards diversity, creativity, cultural awareness, sensitivity, and humour. After the drama activity: 1) each group member shares his/her experience; 2) recordings are edited and produced as digital video; 3) videos are published for the discussion on the quality of the set design, and personal and group reflections of the performance making process and post-performance experiences.			
ABC dialogues	Pupils develop dialogue in which each utterance must begin with the letters of the alphabet in order. The dialogue between Pippi, Tom, and Anika is about Pippi's birthday.	The teacher records the pupil's performances for post-discussion, learning and self-evaluation purposes. After the drama activity, pupils create 1) digital versions of their dialogues and 2) drama podcasts.			
Writing dialogue articles	Give each pupil a list of questions. Ask pupils to choose seven questions that they think they could answer interestingly. Pair the pupils up. Ask each pupil to interview their partner by asking the questions that have been chosen. The pupil who is interviewing makes notes as they go along. Pupils convert their notes into a dialogue article. Question examples: What is the craziest thing you have ever done? What makes you unique? What is your favourite book?	Each pair's performance is recorded by chosen pupils for post-discussion and self-evaluation purposes of presented (nonverbal and verbal) communication skills, self-image, emotions and behaviour, personal potential, sensitivity, and humour. After the drama activity: 1) each pair shares their experience; 2) recordings are edited and produced as digital video; 3) videos are published for the discussion on personal and group reflections of the performance-making process and post-performance experiences; 4) each pair create a digital version of their dialogue according to the answers (enriched with			

Г	2 1 70	1	
	What are you most afraid of? How do you relax? Where in the world would you most like to live and why? What has been your most embarrassing moment? How do you see yourself in ten years? What is the craziest thing you have ever done?	images, sounds and effects); 5) each pair create a drama podcast.	
All the words you know	Pupils are divided into groups. Each group has one minute to say all the words that come to mind.	The teacher records the pupil's performances for post-discussion and	
Word webs	Pupils choose words from the list and make webs of words they associate with each other, being careful not to identify the topic on their word webs. In other words, the central circle should be left empty.	learning purposes. After the drama activity, pupils use digital tools to write and present their words and webs of words.	
Improvisation	Pupils are divided into groups. Every member of the group is an investigator. As an investigator, every group needs to present the word from the activity word web. They need to describe the word: What is that? What is it for? How was it created? What is its purpose? Etc.	The chosen pupil records each investigator for post-discussion and self-evaluation purposes of presented (nonverbal and verbal) communication skills, critical thinking, problem-solving, and creativity. After the drama activity: 1) each group shares their experience; 2) recordings are edited and produced as digital video; 3) videos are published for learning purposes and discussion on personal and group reflections of the performance-making process and post-performance experiences.	
Improvisation	Pupils are divided into groups. Each group should come up with an improvisation whose topic is <i>Too much knowledge can send the sanest person completely bonkers</i> .	Each group records peers' improvisation performances for post-discussion and self-evaluation purposes. The performances are used to assess presented (nonverbal and verbal) communication skills, critical thinking and problem-solving, empathy towards diversity, creativity, cultural awareness, sensitivity, and humour. After the drama activity: 1) each group shares their experience; 2) recordings are edited and produced as digital video; 3) videos are published to discuss personal and group reflections on the performance-making process and post-performance experiences.	
Rewrite a fairy story	Pupils rewrite a well-known fairy tale, which must be as funny as possible.	After the drama activity, each pupil creates a digital version of his/her fairy tale (enriched with images, sounds, and effects).	
After the "Mime", "Simulation", "Role-play", "Writing dialogue articles", and "Improvisation" drama			

After the "Mime", "Simulation", "Role-play", "Writing dialogue articles", and "Improvisation" drama activities: 1) each group member creates an e-portfolio to keep a record of his/her drama activities and projects to reflect on learning and track progress over time; 2) each group member can (not mandatory) write a blog of his/her drama activities and projects, to share it with peers and teachers, and receive feedback.

*ICT examples imply the use of digital devices (e.g. PC, laptop, image projector, smartphone, tablet, video camera) and digital tools and applications for text editing (e.g. MS Office Word); image editing (GIMP, Paint 2/3D, Pixlr, LunaPic, Kleki); audio editing (e.g. Audacity, Ocenaudio, AVS Audio Editor, Adobe Audition); creating video content (e.g. Powtoon, Biteable, AdobePremiere, Clideo, Animoto, iMovie, Filmora); creating various graphical content, such as interactive presentation, poster, placard infographic, mosaic, photo album etc. (Canva, Visme, Big huge labs, Piktochart, Glogster, Genially); creating different interactive content presentations (e.g. Prezi, Mentimeter, Jamboard, Padlet, Zoho Show, Quizlet, Miro,

Kahoot, Wordwall, Nearpod); online teaching and learning (e.g. Zoom, Google Classroom, Microsoft Teams); creating digital stories (e.g. Storybird); creating podcasts (e.g. Anchor, GarageBand); creating e-portfolio (e.g. Seesaw), etc.

The above-mentioned drama and ICT activities can be adapted to the content and learning outcomes in other domains.

5. Conclusion

Education systems undergo continuous change. Today's models of upbringing and education should encourage pupils to find ways of expressing themselves, promote knowledge about their thought processes, and provide a better and more qualitative insight into understanding themselves.

Education through art serves not only the development of artistic sensibility for the sake of art itself but also its transfer to other areas, such as enriching knowledge, strengthening personal opinion, acquiring moral criteria, imagination and creative abilities.

In educational work, we should develop pupils' personalities, shape their individual and social personalities, and develop their understandings and values.

Through drama activities, the child learns about life, participates in possible life situations, and is enabled to painlessly explore what it is like to be an adult by playing in different situations and meeting different characters.

This definition of drama education contains the philosophy of the entire movement: to provide pupils with safe experiential learning and thus prepare them for real life. In educational practice, drama activity can appear as mime, pantomime, simulation, improvisation, role-playing, dramatised reading, acting out dramatised text, etc. It is based on "as if" pretending because the pupil has to immerse herself/himself in the character of another person in a different life situation. The drama activity works holistically by integrating intellectual knowledge, lived emotions and aesthetic experience into a complete experience that supports and strengthens every further step of the participant's activity aimed at learning, treatment, or personal growth (Krušić, 2014).

Drama activities have an essential role because, as a complex and integrating form of learning, drama activities help pupils express and develop feelings, tendencies, abilities and attitudes; develop speaking and expressive skills; develop imagination; develop motor skills and body language; acquire and develop social awareness and its components: (self)criticism, responsibility and tolerance; develop human moral convictions; gain security and self-confidence; understand interpersonal relationships and behaviour; learn to cooperate, appreciate themselves and others.

Baert et al. (2002) believe that education should enable children to develop fully with all their physical and intellectual abilities, and especially develop aesthetic awareness in children and pay special attention to moral and social aspects; enable children to adopt and respect democratic values of participation, responsibility, respect for the rights and opinions of others, as well as values related to understanding and developing reciprocity; take care the unique features of each child and try to build his personality as fully as possible, paying particular attention to moral, social and ethical issues; encourage the development of interests, concepts and knowledge, abilities and skills, works methods and attitudes towards learning (Beart et al., 2002, pp. 110–111).

Comparing these recommendations with drama activities, it can be concluded that drama activities have scientific justification because the interactive approach creates a favourable

climate, establishes appropriate social relationships and engages not only cognitive but also emotional, rational and social aspects of learning, preparing the pupil to "be ready respond to the demands of the school, the world of work, the family and the social community" (Baert et al., 2002, p. 111).

In theatre/drama education, by not replacing human interactivity (Cameron & Anderson, 2009) and without disturbing the natural flow of drama activities, which positively affects and facilitates the natural development of a pupil's cognitive, emotional and motor skills, ICT should be used in a complementary and purposeful way, supporting different ways of expression and collaboration among individuals and groups, using accessible and suitable hardware and/or software for enhancing the drama environment and sharing experiences.

Digital technologies used in drama activities offer interactivity, interaction and collaboration in teaching and learning processes without disturbing the experiential nature of drama education (Zakopoulos et al., 2023). Multimedia systems are used to create the set designs of drama environments and record drama activities for later discussion and review of the performance-making process and post-performance experiences. Digital tools and applications are used to create multimedia interactive content (text, images, audio, video, presentations, podcasts, etc.) for different purposes in the process of writing scenarios and scripts, online collaboration on scripts and rehearsals, reflection on post-performances, and promoting and sharing scripts and performances etc.

In this way, integrating ICT with drama activities enriches the educational experience by combining traditional performing arts with modern technology. This approach not only makes learning more accessible and engaging but also equips pupils with valuable skills for the digital age.

References:

- Arslan, E., & Çağdaş, A. (2011). An Analysis of the Effects of Communication Skills Training, *US-China Education Review*, Vol. 8 (3), pp. 384-392.
- Baert, G. (2002). *Inovacije u osnovnom obrazovanju*. Školske novine. Zagreb.
- Butterfield, T. (1993). Drama through Language through Drama. Kemple Press. Banbury.
- Catterall, J. (2009). Doing well and doing good by doing art: The effects of education in the visual and performing arts on the achievement and values of young adults. Imagination Group/I-Group Books. Los Angeles/London
- Cawthon, S.W., Dawson, K. & Ihorn, S. (2011). Activating Student Engagement Through Drama-Based Instruction., *Journal for Learning through the Arts*, 7 (1), pp.1–29. https://doi.org/10.21977/D97110007
- Chessin, D. & Zander, M.J. (2006). The nature of science and art. *Science Scope*, 29 (8),42-46.
- Deasy, R. (2002). Critical Links: Learning in the Arts and Student Academic and Social Development. Arts Education Partnership. London.
- Dorion, K. R. (2009). Science through Drama: A multiple case exploration of the characteristics of drama activities used in secondary science lessons, *International Journal of Science Education*, Vol. 31 (16), pp. 2247–2270. https://doi.org/10.1080/09500690802712699
- Duran, M. (2011). Dijete i igra. Naklada Slap. Jastrebarsko.

- Duran, M.; Plut, D.; & Mitrović, M. (1988). Simbolička igra i stvaralaštvo. Zavod za udžbenike i nastavna sredstva. Beograd.
- Fanouraki, C. & Zakopoulos, V. (2023). Interacting through Blogs in Theatre/Drama Education: A Greek Case Study, *Journal of Interactive Media in Education*, 2023 (1): 2, pp. 1–16. https://doi.org/10.5334/jime.775
- Giedrė, S., & Baziukaitė, D. (2009). Integration of ICT, Drama, and Language for Development of Children's Communicative Competence: Case Study in a Primary School, *Informatics in Education*, Vol. 8, No. 2, pp. 281–294Goble, G. H., Van Ooyik, J., Robertson, T. and Roberts, G. J. (2021). Effects on students' academic and non-academic outcomes and student participation in theatre arts: A research synthesis, *Educational Research: Theory and Practice*, 32(3), pp. 1-22. https://doi.org/10.15388/infedu.2009.17
- Gong, H. (2022). Application of multimedia human-computer interaction technology in preschool children Drama Education, *Advances in Multimedia*, Volume 22, pp. 1–11. https://doi.org/10.1155/2022/6388057
- Gregory, S. et.al. (2015). New applications, new global audiences: Educators repurposing and reusing 3D virtual and immersive learning resources. Bentley, Western Australia, 121–133. https://doi.org/10.14742/apubs.2015.980
- Hatton, C. & Nicholls, J. (2018). 'If this was real... .': Researching student meaning-making in a digital rolling role drama. *Ethnography and Education* Volume 13 (3), pp. 377–395. https://doi.org/10.1080/17457823.2018.1441040
- Heathcote, D. & Gavin, B. (1995). *Drama for Learning. Dorothy Heathcote's Mantle of Expert Approach to Education*. Heinemann. Portsmouth.
- Irugalbandara, A. I. (2021). The potential of Zoom technology for enabling creativity in the drama classroom through peer-assisted learning and group collaboration in preservice teacher education, *Drama Australia Journal 2021*, Vol. 45 (2), pp. 144–159. https://doi.org/10.1080/14452294.2021.2013630
- Křepelková, Š., Činčera, J., & Kroufek, R. (2019). Becoming a global citizen through participation in the Global Storylines Program, *Sustainability*, 11 (15), pp. 1–13. https://doi.org/10.3390/su11154162
- Krušić, V. (2016). Umjetnički odgoj što je to i čemu služi? *Zbornik radova 1. Međunarodnoga znanstvenog i umjetničkog simpozija o pedagogiji u umjetnosti.* Hrvatska, Osijek, pp. 1–10.
- Krušić, V. (2018). Kazalište i pedagogija. Disput i HCDO. Zagreb.
- Kunić, I. (1990). Kultura dječjeg govornog i scenskog stvaralaštva. Školska knjiga. Zagreb.
- Kurikulum nastavnoga predmeta Hrvatski jezik za osnovne škole i gimnazije (2019). Narodne novine 10.
- Ladika, Z., Čečuk, S., & Dević, Đ. (1983). Dramske igre. Naša djeca. Zagreb.
- Liyanawatta, M., Yang, S.H., Liu, Y.T., Zhuang, Y. and Chen, G.D. Audience participation digital drama-based learning activities for situational learning in the classroom, *British Journal of Educational Technology*, Volume 53 (1), pp. 189–206. https://doi.org/10.1111/bjet.13160
- Lutzker, P. (2007). The Art of Foreign Language Teaching: Improvisation and Drama in Teacher Development and Language. Francke A. Verlag. Tübinger.

- Piazzoli, E. (2011). Process Drama: The Use of Affective Space to Reduce Language Anxiety in the Additional Language Learning Classroom. *Research in Drama Education*, 16/4, pp. 557–573. https://doi.org/10.1080/13569783.2011.617104
- Read, H. (1974). Education Through Art. New York: Pantheon books.
- Sagirli, M. Ö. (2014). Elective Drama Course in Mathematics Education: An Assessment of Pre-Service Teachers, *Educational Research and Reviews* 9/14, pp. 466–477. https://doi.org/10.5897/ERR2014.1723
- Shelton, R. N. & McDermott, M. (2011). Using Literature and Drama to Understand Social Justice, *Teacher Development* 14 (1), pp. 123–135. https://doi.org/10.1080/13664531003696683
- Škuflić-Horvat, I. (2004). Scensko stvaralaštvo učenika osnovnoškolske dobi, *Hrvatski II* (1-2), pp. 83–98.
- Davis, S. E. (2010). *ICTs for Creative Practice in Drama: Creating cyberdrama with young people in school contexts* [Doctoral thesis, Queensland University of Technology]. Queensland University of Technology.
- Tzima, S., Styliaras, G., Bassounas, A., & Tzima, M. (2020). Harnessing the Potential of Storytelling and Mobile Technology in Intangible Cultural Heritage: A Case Study in Early Childhood Education in Sustainability, *Sustainability*, 12 (22), pp. 1–22. https://doi.org/10.3390/su12229416
- Webb, A. & Layton, J. (2023). Digital Skills for Performance: A framework for assessing current and future digital skills needs in the performing arts sector, *Arts Mark*, 13, pp. 33–47. https://doi.org/10.1108/AAM-09-2021-0054
- Zakopoulos, V. et al. (2023). Drama/Theatre Performance in Education through the Use of Digital Technologies for Enhancing Students' Sustainability Awareness: A Literature Review, *Sustainability* 15 (18), pp. 1–26. https://doi.org/10.3390/su151813387