



You are not one, you are a thousand: Findings from a future-oriented participatory action research

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ABSTRACT

There is a pragmatic and moral imperative to empower younger generations to tackle environmental degradation. In Iran and drought-stricken Isfahan with a dying river, children and the youth can play a major role in saving this historically significant city. This paper presents the results of a future-oriented drama-based participatory event in a high school in Isfahan. During a 6-day event, firstly, 25 female participants were interviewed about environmental hazards and their sense of agency toward the future. Subsequently, a council-of-all-being-inspired drama was staged during which the participants played local environment-related characters from Isfahan. Finally, on the fourth day, in a focus group, we discussed the reflections of students on this intervention. Paralyzing fear and despair, patriarchal social structure, consumerism, and deep-seated habits were regarded as the main barriers to pro-environmental behavior. Participants felt that they cannot overcome the weight of history to shape their desirable futures. Drama unveiled the participants consume-preserve dilemma, helped them empathize with nature, develop a sense of hope, decipher the importance of individual micro-steps, and even start an inter-generational dialogue.

1. Introduction

The unprecedented scale, diversity, dynamism, and severity of the environmental predicament have turned it into an existential risk to our beloved planet and human civilization (Masson-Delmotte et al., 2018). In this regard, the development of environmental awareness and galvanizing people into eco-friendly actions (Kollmuss & Agyeman, 2002) have been long-standing goals of sustainable development. Without engagement, involvement, and commitment of younger subsets of the population these goals cannot be achieved (United Nations, 2019). Nonetheless, much of the research in Geographies of Children, Youth and Families still denies the agency of the young people (Holloway et al., 2018). To make a change and to save the world from a climate disaster, we should teach children how to care about the future and enhance their environmental literacy: “if we want to support students to begin to create plausible stories of the future, particularly concerning climate change, we probably need to work across subjects and make connections with scientist, engineers, historians, etc.” (Facer et al., 2022, p. 91). In doing so though, the educational challenge is not just bringing the students to the table and feeding them a standardized form of knowledge, but creating conditions for the co-emergence of the students, knowledge, and the world (Facer & Sriprakash, 2021).

Following the pragmatic and ethical imperative of empowerment of youngsters, a mega-project was designed by the author(s).

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Since we started, over the course of five years, more than 50 workshops, youth conferences, art-based interventions, teacher training, and other future-oriented activities have been conducted to help children and the youth to shape their eco-sociocultural futures. In this mega-project, we were inspired by and collaborated with “Teach the Future Organization”². Taking the alarming level of environmental issues in Iran, the patriarchal culture of the country, the widespread practice of authoritarian child-rearing, and the gradual disappearance of *Zayanderood*³ in drought-stricken Isfahan into consideration, makes a long-term commitment to projects of this nature absolutely essential. The mega-project has resulted in a comprehensive approach to engaging youngsters with their eco-sociocultural futures. In this paper, one of the drama-based case studies of this mega-project is presented. The remainder of this paper is organized as follows. Section 2 provides a brief background to the concepts used in designing this drama-based intervention for high school students in Isfahan. In Section 3, we give a detailed description of the steps taken during the intervention. Subsequently, a thick description of the participatory drama is given by triangulating the data collected during the 4-day event. Section 5 summarizes and concludes the paper.

2. Background

How can we nurture future generations to act in favor of our planet and gain passionate commitment to pro-environmental behavior? The pertaining literature suggests that to materialize this goal, scientific disciplines are not sufficient and humanities education should design and implement educational programs to form environmentally conscious citizens (Facer et al., 2022; Soetaert et al., 1996). Development of a sense of responsibility and sensitivity toward anthropogenic causes of environmental degradation among the youth can be achieved only if environmental education is placed at the center and not “on the margins of educational landscape” (Graham, 2007); A strong bond, also, needs to be forged between future citizens and the nature (Flowers et al., 2015) through the provision of environmental education programs (Bartosh et al., 2006). Arguably, the final goal of this kind of education is to shape human behavior. Nonetheless, the evidence suggests that conventional eco-education fails at reaching the minds and particularly hearts of learners (Boeckel, 2014; Sobel, 2008). Truth is, there is no linear progression from environmental awareness to pro-environmental behavior; old behavior patterns, personality traits, and external and internal factors can affect this progression. A significant enabler of pro-environmental behavior is emotional involvement (Kollmuss & Agyeman, 2002).

Art-based approaches are one possible way to create this emotional involvement. Art as a learning medium can lead to “transformative learning” (Mezirow, 2003)—a “deep structural shift in core thoughts, feeling, and activities” (Ewing, 2011, p. 33). Cultural change is at the core of the sustainability revolution and the mutual frontier of art and culture is said to complement legislative and policy tools (Kagan, 2008) via the appealing transmission of information and the formation of empathic bonds with the environment (Curtis et al., 2014).

Focusing on the education of children and the youth, educational art can prove to be instrumental in tackling laissez-faire attitude toward the environment by raising provocative questions concerning culture, community, and nature (Graham, 2007), moving beyond daily observations of the earth in action (Pinciotti, 1993; Song, 2012) and initiate steps to educate the environmentally informed, committed and active citizenry. Furthermore, in a scholastic context, we should move from teacher-centeredness—typically characterized by passive absorption of information (Gravoso et al., 2008) and accumulation of inert knowledge (Bruer, 1994)—to student-centered discourses (Somers, 1994).

One possible way to add art to pedagogy is through the incorporation of drama activities; it can be done in different ways: (Curtis et al., 2013; Dorion, 2009): “theater-in-education” (Wooster, 2007), “pedagogical-theatre (Burton, 2011, as cited in Curtis et al., 2013), historical dramas (Begoray & Stinner, 2005; Griffin, 2001), analogy drama (Edmiston & Wilhelm, 1998) and metaphorical role plays (McSharry & Jones, 2000), to name a few.

Creative drama enhances flexibility, openness, imagination (McCaslin, 2006), and spontaneity to deal with unexpected situations (Spolin & Sills, 1999). It helps young learners acquire affective, cognitive, procedural, and technical knowledge, enhance their thought experiment capabilities along with their high-order thinking skills (Dorion, 2009; Hetland & Winner, 2001), travel in time and space, undergo a catharsis, and improve their personal knowledge of the world (Pinciotti, 1993). Traditionally, the future has been conceptualized as an abstract eventuality and therefore we have limited discursive apparatuses for thinking about possible futures materially, experientially, and performatively; With the advent of its diegetic integrity, drama can be used as a unique discursive/reflective apparatus to re-assess the past and imagine alternative futures and make them less abstract and more concrete; it provides participants with a moment of indeterminacy, a societal space of freedom to re-imagine their relationship with the world (Candy, 2010, p. iv; Freebody & Finneran, 2021, p. 185).

The dramatic dimension can include as-if worlds (Andersen, 2004)—with different temporal, geographic, social, corporeal, or dimensional features (Dorion, 2009)—in designing constituent tasks and activities. Also, the empathetic dimension is not restricted to fellow humans and drama can be designed to cast off the egocentric perspective (Metcalf et al., 1984) and allow students to empathize with non-human entities such as trees, rivers, and atoms (Dorion, 2009). Empathetic bond with others and the non-human world—especially empathy “mediated by place and identity” (Spano et al., 2020)—encourages pro-environmental mutual identities (Krznaric, 2014; Rifkin, 2009) and strengthens motivation for pro-environmental behavior.

Another relevant area to eco-education of future generations—at the juncture of art, pedagogy, and space (Boeckel, 2014, p. 6)—is the critical place-based pedagogy (Graham, 2007); it problematizes deeply-seated global assumptions about our connection with

² <https://www.teachthefuture.org/>

³ The largest river of the Iranian Plateau in central Iran

nature, definitions of progress and the *raison d'être* of education and instead seeks alternative context-specific and transformative/emancipatory practices (Graham, 2007). Such an approach can include art-oriented events/workshops/activities which have holistic and thought-provoking literary themes, linguistic items, context-specific structural components, myth and metaphors, motifs, heroes, and heroines at their core (Soetaert et al., 1996).

Heeding the evolution of design practices can be another inspiration resource for creating participatory/transformational educational platforms for the youth; design has moved from the representation of the world “as it is” to representations of “near future” and “speculative futures”; its purpose also has moved from mere “serving” to include “engaging” and “provoking” (Sanders & Stappers, 2014). Discursive design, for instance, communicates ideas, encourages discourse (Tharp & Tharp, 2013), elicits self-reflection, stimulates imagination, and above all else facilitates social debates (Tharp & Tharp, 2019).

3. Method

Our theoretical approach was based on participatory action research (PAR) which is a form of social investigation that can result in the distribution of agency to participants (Checkoway, 2011). Different approaches to PAR share unanimous components, namely, participation, engagement, empowerment, mutual learning, and capacity building (Minkler & Wallerstein, 2011; Shamrova & Cummings, 2017). In this study, we used semi-structured creative drama as our core method (Ødegaard, 2003). Creative drama is an encompassing, improvisational, facilitated, interactive, non-exhibitional, and process-oriented learning medium (Çokadar & Yilmaz, 2010; Pinciotti, 1993). It involves thinking, feeling, acting, various forms of communication, interactive dialogue, gestures, individual preparations, pair works, lengthy improvisational role plays, group enactments, mimes and pantomimes, event simulations, facilitator-in-role guidance, whole-group activities, embodied sensations, anthropomorphic metaphors (Bolton, 1980; Dorion, 2009; Pinciotti, 1993). They are almost always facilitated and led by mediators who guide the learning experience.

The design of drama was inspired by the “council of all beings” which is an awareness-developing communal ritual during which participants avert their personal identity and speak on behalf of other life-forms; it helps us to conceive our place in the web of life instead of placing ourselves at the apex of human-center pyramid (Seed & Pugh, 1988). The drama was, nonetheless, designed and facilitated by the integration of concepts from creative-drama interventions (Çokadar & Yilmaz, 2010; Ødegaard, 2003), critical place-based pedagogy (Furman & Gruenewald, 2004; Graham, 2007; Gruenewald, 2003) and Theater of Becoming (Baena, 2017).

In this drama, 25 female students of a high school in Isfahan, aged 15–16, participated. Three of the school teachers were involved as well. An ethnographic stance was employed (Hammersley & Atkinson, 2007); two master students were present as ethnographers to observe the participants, gather qualitative data, take field notes, and collect documentary evidence such as films and photos. In designing a study where minors are involved, one major concern is the “oversimplification of their involvement” and “misinterpretation of their voices” (Clark et al., 2014; Shamrova & Cummings, 2017). We tried to climb on the rungs of Hart’s participation ladder and benefited from Sherry Arnstein’s Ladder of Citizen Participation model (Arnstein, 1969) during this event; the participants were “consulted and informed” (Hart, 1992); intentions of the workshop were discussed and students were asked if they were willing to participate. Their parents’ consent was acquired, too. As for the ethical considerations of the research, following Thomas and O’Kane (1998), we approached children we were to study as social actors with distinctive capabilities to comprehend and report the world around themselves. It was important for us to acquire the confidence, trust, and consent of the children’s parents for their participation. Sometimes, the students might be interested in taking part in the research but their adult “gatekeepers” do not allow them to take part. Because of our previous work in this school, we easily arranged to get their permission. We asked for the active agreement of the students and the passive agreement of the parents. We also insured that, within the main themes of the research, the students had a degree of control over how to participate in the research. They actively took part in affecting the overall direction of the research and its final dissemination. We tried to allow room for their agency and be aware of the hidden power relations which could influence the results of the research in all steps of the research. In so doing, the following strategies and actions were pursued:

- The participants were initially consulted and informed about the purpose of this intervention
- The characters of the drama were chosen by the participants themselves based on context-specific considerations
- The whole process was facilitated by the participants themselves especially by *Pire Farzane* (one of the characters of the drama)
- A week after the drama, we did ask all the participants to refine and revise the transcriptions of their interviews and their comments one by one.
- Two days before the focus group, we worked with three volunteers to watch the drama’s video again and work on the messages and comments which should be included in the main results to be presented to the focus group.

The overarching themes we derived were presented to the focus group and participants were asked to provide us with their reflections about the themes and even their re-interpretations of our research questions and concerns.

Thematic analysis (Clarke & Braun, 2014) was conducted for all collected qualitative data (Lee et al., 2020). The lived experiences of learners besides their “perceptions and conceptions” were triangulated with the researchers’ and ethnographers’ observations to create “thick descriptions” of the event (Stake, 2006, as cited in Dorion, 2009). The triangulation (Cohen et al., 2007, pp. 141–144) of different types of data (semi-structured interviews, observations, ethnographic field notes, and reflections) was further enriched by theoretical concepts in relevant literature to create a coherent narrative of this drama-based intervention:

“This narrative inquiry is a way of understanding experience. It is a collaboration between researcher and participants over time, in a place or series of places, and in social interaction with milieus... in the midst of living and telling, reliving and retelling (Jean & Michael, 2000, p. 20).

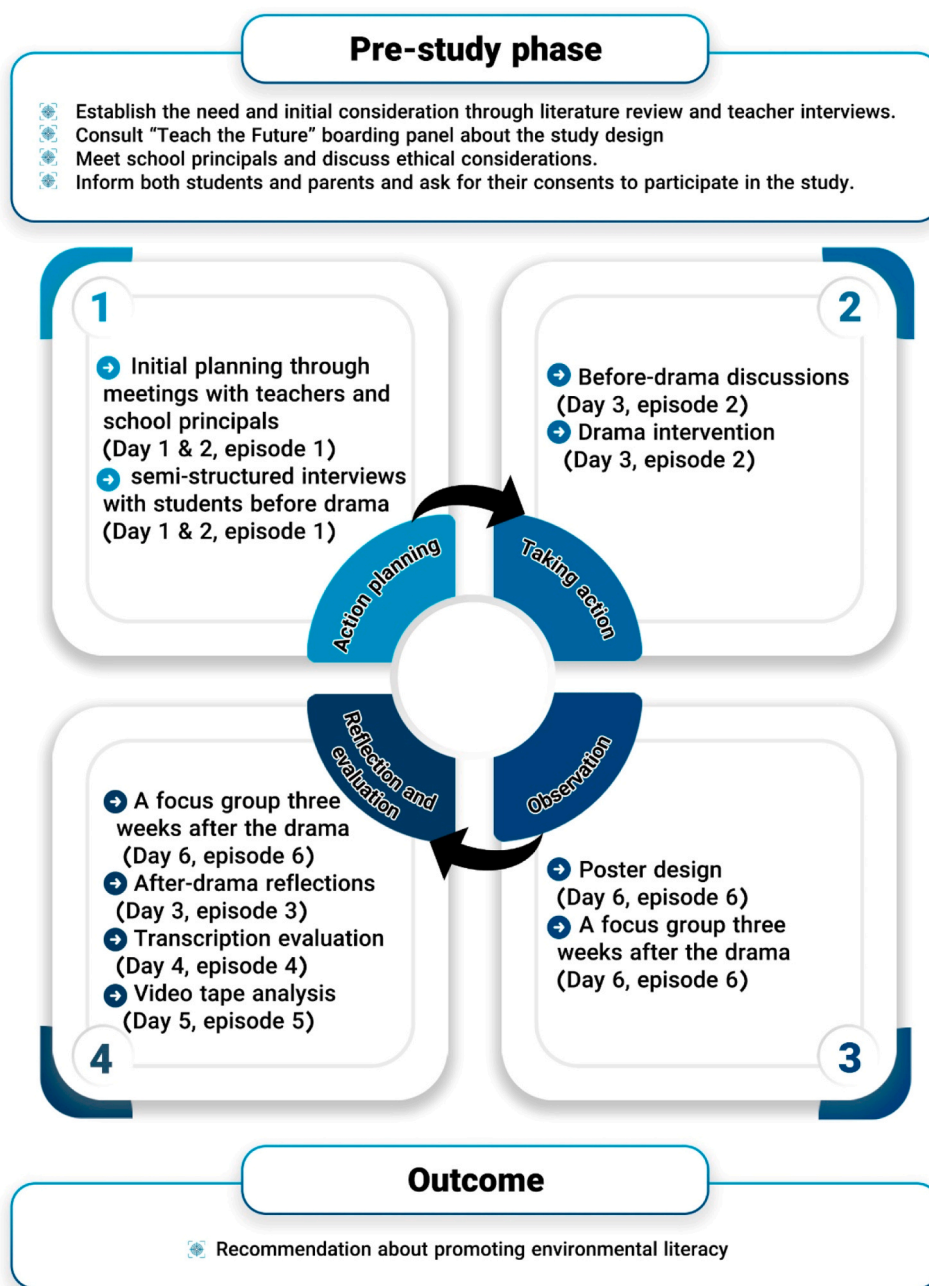


Fig. 1. The research steps based on the PAR cycle.
Adapted from Rabba et al. (2020).

3.1. Data collection tools and procedure

PAR typically consists of planning, acting, reflecting, and observing in a cyclical fashion. Fig. 1 summarizes the steps which were taken during this intervention based on the PAR cycle (Kindon et al., 2008). We took the following steps during this study:

Day 1 & 2, episode 1, semi-structured interviews (SSIs): students were interviewed by 2 researchers one by one. Each interview lasted around 45 min. They were shown some photos of environmental issues in Isfahan; they were asked to convey their attitude, feeling, and initial responses. Why did *Zayanderood* go dry? What are the origins of environmental issues in Isfahan? How do they evaluate their pro-environmental behavior? What are the main barriers to pro-environmental behavior?

Day 3, episode 2, Before-drama discussions (1 h): At the beginning of the session, some icebreaker activities were employed to create a friendly atmosphere and increase the engagement level of students (Fig. 2). The participants were then “informed” that we



Fig. 2. Before-drama discussions.



Fig. 3. Some photos of the drama-day.

wanted to stage a theatre about the environment and they were given instructions to think about the characters of the drama during the break. They were also provided with a short pamphlet including some facts, figures, and trends about local and global environmental issues.

Day 3, episode 2, drama, (4 h with breaks): This session began with the mediator role-playing an old crooked oak tree for about three minutes. The participants were asked to design their characters inside their groups. Through facilitation and collective voting, seven characters were chosen. To use the terminology of the Theatre of the Oppressed, this drama consists of a joker (facilitator) and a group of spect-actors (Boal, 2014):

- I. *Pire Farzane* (A mystical Iranian old man who is a symbol of wisdom and holism)
- II. *Zayanderood* (The mother of Isfahan and a river that passes through the center of Isfahan)
- III. *Velgard* (A stray dog that one of the students once took care of)



Fig. 4. characters' performance on drama day.

- IV. *Tugi* (A pet parrot of one of the students representing birds)
- V. *Sofeh* (A small mountain in SW of Isfahan)
- VI. *Dur*⁴ (A landfill 25 kilometers North of Isfahan)
- VII. *Hasani* (Representing humans: Hasani is a famous character in Iranian literature for children who is a symbol of laziness and dirtiness. He lives on a farm but because of his dirtiness, none of the animals or people on the farm want to be his friend.)

Then what if questions were presented. What if you were *Zayanderood* and you were to talk? “What would you say?” “What would you complain about?” “What would you ask Isfahan citizens to do or not do? They were asked to prepare some lines—as a role-card description—for their chosen characters inside their groups. They used their mobile phones to collect some information and were helped when necessary. Subsequently, they had characters painted on their faces (As you can see in Fig. 3, for *Zayanderood*'s character, the group built a mask because one of the students was allergic to cosmetic colors).

The drama ensued. Each group represented one of the characters and students in each group took turns playing their designated character. Pire Farzane with a gavel in his hand, called the characters one by one to talk. Learners and Pirefarzne almost completely directed the drama. Occasional facilitation was given. Figs. 3 and 4 show some photos of the drama day.

Day 3, episode 3, After-drama reflections (ADRs) (90 min): students were asked to give feedback, and their reflections and speak about their “subjective responses to a known situation” (Cohen et al., 2007, p. 273).

Day 4, episode 4, transcription revisions (30 min for each student): a week after the drama, we did ask all the participants to refine and revise the transcriptions of their interviews and their comments one by one and discuss their opinions with us.

Day 5, episode 5, drama video analysis (2 h): two days before the focus group, we worked with three volunteers to watch the drama video again and work on the messages and comments which should be included in the main results to be presented to the focus group.

Day 6, episode 6 (3 h): To follow a cyclical process to evaluate and discuss the dissemination of the results, a focus group was conducted three weeks later to present research findings and collect students' reflections on them.

4. Findings and discussion

By triangulating different types of data including semi-structured interviews, observations, ethnographic field notes, and reflections, and conducting a thematic analysis on them, we tried to encapsulate participants' voices as some overarching themes. We also tried to assess how the drama affected these themes or helped them change or emerge. This thick description was also enriched by relevant evidence from the literature based on indirect/implicit points raised or discussed by spect-actors during this intervention. As our focal concern in this research was the agency of youngsters, following Holloway et al. (2018), we will use the four dimensions of agency—capacity, subjectivity, spatiality and temporality—as we discuss the overarching themes derived from this intervention.

⁴ In the Persian language, this word means “far”

4.1. I am scared! They did it

The first question of agency is “capacity” by which we mean “to what extent children are competent actors in their eco-sociocultural futures and realities?”;

one aspect of this question of agency concerns the perception of children, themselves, on the depths and types of their agencies (Durham, 2008; Holloway et al., 2018). In this regard, one overarching theme which was transparently visible in the early stages of this intervention was “a paralyzing fear”—ecophobia (Sobel, 2008, p. 146)—about the “grandeur” and “irreversibility” of environmental issues that begets apathy, “feelings of personal inadequacy” (Boeckel, 2014, p. 9) and even total despair. The conclusion is that any conceivable change is impossible or, to say the least, “I cannot have an impact”. Sadness, helplessness, and anger have been expressed in response to environmental issues in other studies as well (Sommer et al., 2019; Strife, 2012); these feelings can “block constructive engagement” (O’Neill & Nicholson-Cole, 2009).

To illustrate how this sense of helplessness came up in these interventions, In SSIs, Fereshteh⁵ says “She is gone! They killed her. It is sad but we have to accept it. I have no hope of having her back. What can I do?”⁶ Parya adopts a similar attitude and expresses her disbelief in her personal agency: “almost half of autumn and winter, we had extremely polluted days in Isfahan. Can I move Isfahan Refinery? Can I force single-occupant vehicles to use public transport? No, I cannot”. In a similar vein and in an attempt to find the causes of this feeling of apathy, the general approach taken to expose children and the young to environmental issues was criticized. For instance, Raana remarks: “look! I am active on this Instagram page about the environment. I constantly see photos of dying Lake Urmia. Every day, on my way to school, I pass by *Zayanderood* and see its parched bed. On TV, I hear about high levels of pollutants in Isfahan. It is too much for me.” The literature also endorses this perspective held by participants: “Environmentally correct curriculum” (Sobel, 1996) and “ecomedia” (Estok, 2018), in tandem, weaken the sense of agency and make children and the youth feel disempowered and helpless. In fact, many studies suggest (Bechara & Damasio, 2005; Kollmuss & Agyeman, 2002; Moser, 2016) that negative or apocalyptic imagery can result in distancing, apathy, and resignation (Burke et al., 2018) of the youth.

In Isfahan, this hopelessness is even stronger because the youth have a firsthand experience of environmental disasters. The geographical centrality and prominence of *Zayanderood* and not-so-far memories of teenagers from waves of *Zayanderood*, licking and lapping up pillars of Si-o-se-pol⁷ have driven most participants to borders of despair and wishful nostalgia. As an illustrative example: after a heavy sigh, Elham continues “My brother used to swim in the river. I walked barefoot in it many times. In my neighborhood, when we hear that water will flow again for a short time, we go to the lower floors of Si-o-se-pol with my friends and wait for the river to reach the pillars. The sound of the river is the sound of life for this city.”

Similarly, *Hasani*, once, *Pire Farzaneh* calls him for his first defense transparently refers to this hopelessness:

“Dear *Tugi*, beloved, *Zayanderood*. I do apologize for what I have done. I throw stones at *Velgard*. I drive my car everywhere. I dump heaps of plastic in Dur. But it is the reality of the industrial world. Even if I want to change, I cannot. This is my lifestyle. These are my habits⁸”

The clash between a meta-narrative of the industrial world and a personal emerging story of change is vivid in *Hasani*’s monologue. How subjectivities of youngsters are shaped amid regional/local stories, personal hopes of change and the global meta-narrative has a direct bearing and how agentful youngsters consider themselves. Beside the subjectivity dimension of agency, this is also related to the temporality dimension of agency. As for this dimension, to the participants, due to the path dependency that historical events have created any revolutionary resistance toward “the status-quo” seemed inconceivable. The absence of environmental assurance and hope to turn a *sanative environment* from an ancestral nostalgic memory into a *future possibility* was marked—by a curious sense of *earthlessness* and even *rootlessness* which feeds apathy. Ziba, with a catch in her throat, says “Without *Zayanderood*, there is no future for this city. My aunt lives in Sydney. We want to immigrate to Australia.” There were other participants who felt like Ziba and believed that the only way to regain their agency was to escape the tyranny of their geography/spatiality by immigration.

Another relevant observation was the rare applications of the “I” pronoun in describing the causes of environmental issues. This is indicative of attributing both the responsibility of the hazard and the agency and power to change to “others” Similarly, some polls have shown that the general public does not consider themselves as contributors to environmental problems (Vandenbergh, 2001) which leads to resistance to change of behavior (Babcock, 2009a, 2009b). According to the participants, “individual efforts do not matter”; they are inconsequential and will be lost in the noise of the system. Trying to pin down the responsibility for environmental hazards and the disappearance of *Zayanderood*, a substantial share of the blame and guilt was laid at the doors of the government and big companies on the outskirts of Isfahan by the interviewees. Atena clearly condemns the irresponsible policies of the government: “The government built many dams, wells were dug, polluting companies were built, and their management was poor. They killed our river.” Roksana speaks of unsustainable practices of “others” and “the rich”: “Many people do not care. I have seen the rich filling their pools with tap water, driving their luxurious big cars everywhere, and building villas on the banks of *Zayanderood* by paying bribes to the municipality. They do not respect the environment.”

⁵ All names are pseudonyms.

⁶ Translations of the attendants’ sentences in SSIs and ADRs were done by researchers.

⁷ A famous historical bridge over *Zayanderood*

⁸ Translation of characters’ monologues and dialogues was done by researchers. We had around two hours of dialogues and monologues on drama day. Some were short. Some were long. Different learners of a group talked on behalf of characters several times. Following the guidelines of a narrative inquiry, the two-hour transcriptions were consolidated into these excerpts.

But how did the drama influence this feeling of hopelessness and apathy?. As students talk on behalf of the voiceless inhabitants of the natural world, the ecophobia and the implicit assumption of the uselessness of individual commitment begin to be debunked. At the apex of the drama, *Sofeh* propounds:

“You irresponsible humans, I am talking to every single one of you. Why do you pretend to be victims? You are not victims. *Velgard* is injured. You did it. *Zayanderood* is dry. You caused it. Accept it. Do not run away.”

It can be argued that pointing fingers accusingly at others and waiting passively for them to start saving the environment was challenged by the drama. The participants gained a sense of purpose and hope (Lee et al., 2020); participants reported that they have become more action-oriented (Paredes-Chi & Viga-de Alva, 2020). A sense of “personal responsibility” and the importance of “micro-steps” or “small choices” (Tayne et al., 2020) was mentioned during the drama:

“Hey, Hasani! Why do you not start with little things? I have been in the center of this city for years and a lot of people who pass by me think I am a trash bin. Do not throw your plastic bottles, cigarette butts, and litter into me. I am strong. If you help me, I can come back to the city!”

Zayanderood interjected passionately. *Tugi* continues:

“I am really happy that humans do not have wings because they could fly everywhere and ruin the environment faster. I fly over the city and hear many people justify their actions by saying everybody is doing this, and so am I! Do not follow others. Do not think you are one person and you do not have an impact.”

All of a sudden, *Pire Farzaneh* recites a poem by Rumi: “You are not one you are a thousand, just light your lantern.”

4.2. You consume and consume and consume!

Another overarching theme derived during this multi-stage intervention was over-consumption running amok. According to the literature when it comes to pro-environmental behavior, this is a principal source of complication because, for a long time, educational messages of environmentalism have been in direct competition with an invitation for overconsumption (Monroe, 2003). As for spatiality dimension of agency, the local discourse of minimalism is in stark contrast with the global discourse of consumerism. As an illustration of this paradox, in SSIs, in a rare application of “I” pronoun usage, Sarah talks about over-consumption as a serious problem:

“In my drawer, I have I do not know how many clothing items. I have 20 pairs of shoes! And every time I go out with my family, we end up buying something, and when I go to my grandparent’s village, I am surprised. My grandmother has, I think, one pair of shoes and she has been wearing a beautiful handmade dress for many years. I never wear a dress for a long time!”

Correspondingly, during the drama, *Dur* is called to the stage and as he stands, some litter is dropped on the stage. He explicitly criticizes the voracious appetite of humans for the accumulation of non-essential goods:

“Dear friends! I apologize for my stench. Every day tons of rubbish are collected from Isfahan and are piled on me. I sometimes check the rubbish: thousands of pairs of shoes, T-shirts, items of clothing, pieces of furniture, paper, and plastic, and plastic and plastic. Why do you buy all this? Why do you throw them away? Do you think if you take them 25 kilometers out of Isfahan, it is over? Out of sight, out of the world?”

To complete this line of argument about overconsumption, *Zayanderood* rises and says:

“I am life. I am life-giver.⁹ I went dry because you waste water. I do remember that your ancestors developed Qanats and were very careful with water. *Sofeh* is bald because you cut trees as if they will never end. But they do end. They did end. We do not have enough to meet your greedy consumption”.

What participants try to point out concerns the ecological capacity of the ecosystems and our overconsumption pushing it toward its limits.

Drama, SSIs, ADRs, and the focus group indirectly mentioned concepts like “consumer class”, “conspicuous consumption” and “throw-away mentality”. Based on our observations, the drama was moderately successful in unveiling the “preserve-consume” dilemma among the participants. In ADRs, this paradox was best expressed by Sarah “I love *Zayanderood* but I also love a wardrobe full of clothes, too!” It can be argued that this hidden “preserve-consume” dilemma is one of the basic misconceptions of environmental literacy. To believe that we can consume at current rates but somehow manage to save the planet. In Iran, like in many developing countries, the imported wave of consumerism has relegated many luxury goods to the category of necessities which makes the relationship between environmentalism and consumerism more complex and paradoxical (Panizzut et al., 2021). Some of the teenagers in SSIs attribute their identity to their material possessions and brands they buy, indirectly classifying themselves as “consuming kids” and considering “keeping up with the latest trends” an obligation. Drama helped the partakers to begin to develop a sense of conscious consumerism. As the final reflection and observation of participants, trying to buy what we need, installing an app to keep a track of

⁹ This is the translation of *Zayanderood* into English—a river that gives life

our ecological footprint, and repairing and fixing were discussed in the focus group as viable options. Also, the focus group concluded that environmentally-friendly consumption habits as an important step to improving environmental performance. The idea of a minimalist lifestyle or learning from villagers and the indigenous who respected nature and consume responsibly was discussed in the focus group as well.

4.3. *Trust us, allow us, empower us*

The most important theme brought up by the female participants was the issue of their agency and how they are often sidelined, ignored, and silenced by a primarily patriarchal society. This directly addresses another aspect of capacity dimension of agency and is related to children being accepted by others as agentful beings. This is also related to interdependent nature of children's subjectivities specially to inter and intra-generational dependencies (Holloway et al., 2018). Historically, this interdependence foreclosed any possibility of deviation from the norms; As an illustration, In SSIs, the participants repeatedly talked about their voice, their agency, and their role being ignored by their parents, their school, adults, and previous generations in general. They wanted their parents to take their engagement seriously and allow them to participate in decision-making. Taraneh says "This is our right." Similarly, Faezehe remembered a particular incidence of her agency and efforts being ignored and even ridiculed by her father:

"Once in *Sizdahbedar*,¹⁰ we were camping on the banks of *Zayanderood*. It was really crowded. In the evening, everywhere was all covered with rubbish. My sister and I decided to collect some of the rubbish together. Suddenly my father saw us and got furious: 'what are you doing? You are not garbage collectors! It is none of your business, you cheeky kids!'"

Fahimeh narrates a similar story:

"Last year, I joined an environmental NGO. My father did not allow me. He said: 'I cannot tolerate you and other teenagers going out to the streets after school. You, kids, are simpletons. Adults, municipalities, and the government, they cannot do anything about pollution and drought. What do you kids want to do?' I resigned the following day."

The authoritarian and patriarchal culture of Iran—as a predominantly religious country—was regarded as a formidable barrier to genuine youth participation in ecological issues in this study by female teenagers. Hemmed in, limited and circumscribed by patriarchal/power structures, they are demoted to obedient bystanders and literally non-stakeholder and do not contend that they can overthrow long-standing socio-spatial realities. This was particularly mentioned to be a problem for girls: "I do not have the freedom my teenage brother possesses. The more I obey my father, the more he loves me." In Iran's religious culture, compliance, and submissiveness are considered to be virtues for women. When youth empowerment—especially for young girls—is opposed at the family level, one cannot expect larger communities to be supportive of it.

Nonetheless, since as the Iranian society has undergone socio-technical, politic-economic and environmental change, the quest for deviation and resistance has gained momentum and is transparently vivid in the recent political movement by Iranian women and female youngsters.

Another important issue raised by the participants was the importance of children-parent dialogue. Needless to say, a singular drama-based activity cannot change the traditional inter-generational discourse and dynamics but according to the focus group discussions, this theatrical intervention allowed learners to restage the environmental debate and stimulated their agency to precipitate pressure on their parents, start a dialogue with them as initiators of change to cast off their egocentrism (Metcalfe et al., 1984) and respect their voice, role, and agency.

4.4. *We are all one!*

The next overarching theme was the negligence of taking social responsibility both in our culture and the educational system. In interviews, many of the participants did not remember any incidence in which they were involved in a social project at the family, school, neighborhood, community, or city level. Taraneh says: "Once we participated in a demonstration about climate change. We were carrying placards and stuff but I was not passionate about it. I had seen some photos and videos of Greta's demonstrations in other countries. Something was missing". In a similar vein, Zahra talks about the lack of a collective spirit "If we want to save *Zayanderood*, we need everyone to work together as a team. Believe me! Maybe we need all Iranians. We need everybody on this team. We do not have that team". Despite some individual efforts that students recall, the absence of strong social solidarity, a sense of belonging to the community, and a genuine belief that "we are all indeed fellow passengers in the same boat" could be traced in the interviews.

This unity deficiency is not restricted to the social realm. Faced with the question "How do you think *Zayanderood* feels?" with a surprised face, Maryam replies, "you are asking me about *Zayanderood*'s feelings? I do not know. She is sad, I guess, and cries when she feels heavy-hearted as I do". Pity, worry, a certain degree of empathy, and audible sighs of regret were common currency. Nonetheless, the big caveat is that these feelings do not lead to a strong bond with nature in a way that they will treat all living forms, say, as their family members and will be committed to their well-being. Two of the participants who had pets¹¹ at home, showed a glimpse of this

¹⁰ 1st of April, the National Day of Nature in Persian culture. People spend the entire day camping outdoors. Traditionally, it is supposed to help everyone remember the importance of nature and empathize with nature. The real reason has long been forgotten though.

¹¹ Generally, pet-keeping is not a cultural norm in Iran and a conservative-religious code of conduct is against it but it is getting more and more popular among the younger generations.

fellowship: “My dog is my life, my best friend, my companion on my rainy days, I will do whatever I can for him.” Related to the spatiality dimension of agency, the drama, in particular, and schools, in general, can be regarded as a “micro-site” which can induce transformation. One particular transformative power of “drama as an encounter” was that it can question the distinction between “us” and “them”, highlight interdependent essence of participants’ subjectivities with nature, problematize human-nature dichotomy and provide them with a fresh perspective of their being one.

During the drama, “Shelving of preconceived ideas” and “bracketing” of habitual understanding via some sort of aesthetic estrangement catalyzed a new form of attentiveness (Boeckel, 2014, p. 401) best observed when *Velgard* is called to the stage and starts with a sorrowful bark:

“I am a dog but humans call me *Velgard*. Let me tell you a story: It was a warm summer afternoon. I was hungry and thirsty. I had been looking for something to eat since morning. I turned into an alley. Suddenly, three men started chasing me. They threw big stones at me. It hurt a lot. I was bleeding but I eventually ran away. Hey Hasani! Today is judgment day, tell me: ‘why do you bother me?’ we have been living together for centuries. I have kids. I need food. I have my rights. I am one of you. You are one of me.”

Almost everyone is moved. *Hasani* and *Elham* (*Tugi*) who has a dog at home approach *Velgard* and hug him. *Elham* is in tears. So are some others. *Pire Farzaneh* calls other characters to join the circle and hug each other.

The continuous drought and gradual death of *Zayanderood* have decreased students’ psychological distance (Trope & Liberman, 2010) with ecological degradation and has brought it from obscure futures and distant geographies into their daily realities. Nonetheless, according to the participants, the social and ecological solidarity which can stimulate pro-environmental behavior is weak or missing. In ADRs and the focus group, we almost had the unanimous consensus of all girls that the drama and living in as-if worlds (Andersen, 2004) provided a fresh perspective on the reciprocity and interdependencies of humans and nature in a way that they had previously been ignorant about. It helped them connect “to others, to their land, and their region” (Graham, 2007, p. 377). The drama even seemed to help participants to overcome their overwhelming sense of hopelessness and even create a shared belief—collective efficacy (Bandura, 2000)—that the conjoint capability of the participants can affect the course of climate change.

4.5. Focus group discussions

Three weeks after the participatory drama-based workshop, to complete the PAR cycle (see Fig. 1) and ask for students’ deeper reflection and observations, we came back to the school and held a focus group with the same participants. Firstly, students’ reflections on drama were discussed. Similar to ADRs, students highly praised this genre of activities. *Zahra* was the most passionate advocate and loved the humor and fun elements:

“That day was a rare occasion for me in my school years. I did not yawn. I did not look at my watch. I did not secretly check my mobile phone and, to my surprise, I was not bored as I always am at school. Why should we not have this kind of event all year long?”

Similar studies admit the desirability of humor and fun (Burke et al., 2018; Dorion, 2009) and “genuine feeling of surprise” (Annarella, 1992) in drama based-activities.

Asked about the impact of the drama on their conception of environmental issues The focus group admitted that the drama provided them with a fresh perspective on environmental degradation. *Fahimeh* says:

“The week after the drama I thought *Velgard* slept in my bedroom. Whenever I crossed over Si-o-se-pol, I remembered the dialogues we had during the drama. I had a fresh perspective, a sense of friendship with *Zayanderood*.”

Raana continues: “I hated animals, especially cockroaches. I still do hate cockroaches but I think all animals should be respected and taken care of.”

As for pro-environmental behavior, the participants thought drama provided them with double-consciousness and resulted in small changes in their behavior. They consumed less water, did not drop litter, encouraged parents to use public transport, and were kinder with street animals. Nevertheless, they talked about the heavy weight of their habits and their lifestyle affecting the durability of this new attitude. *Taraneh* regrettably says:

“During the first week after, when I saw litter on streets or parks, I picked them up and I did not care about others labeling me. I convinced my parents about buying a compost machine for our house. But, in the second week, some habits of old *Taraneh* kicked in”

Other participants had similar observations. The negative role of “old behavior patterns” in sustaining pro-environmental behavior was emphasized (Kollmuss & Agyeman, 2002). The participants suggested that art-based activities should not be occasional. They should be systematically integrated into their scholastic curriculum and more importantly, they must start at very young ages.

In the final part of the focus group, we presented our findings to the participants. They expressed their agreements and disagreements. We told them that we want to design a collage that captures our (students’ and researchers’) findings to be presented to Isfahan municipality. The students suggested that the collage should include photos and hashtags. They drew sketches and used their mobile phones and one of the students collected all the ideas on a Photoshop file. The central lantern was chosen based on Rumi’s poem recited by *Pire Farazneh*: “You are not one but a thousand, light your lantern” which accentuates our individual responsibility. The photo in the left top corner is the symbolic mythological logo of Isfahan. The participants wanted to emphasize that this collage is



Fig. 5. The collage showing the main results of this study designed by the participants.

related to Isfahan. The logo is an animal-like creature composed of half human, half dragon. The dragon wants to swallow the sun and the human wants to shoot the dragon and save the sun. The dragon's tail is connected to the human front of this creature. Applied to environmental crises, the dragon's tail can be considered as a metaphor for the anthropogenic impact on the environment and the bow and arrow is the human efforts to nullify this impact. The mythical metaphor exquisitely depicts the yin and yang of the environmental crisis. The photo in the center is "*Amu zanjir baf*¹²" indicative of social/ecological solidarity. (I am Zayanderood) was chosen to be the only hashtag on the collage. Fig. 5 shows the collage which was later designed using the initial sketch of students.

5. Conclusions

There is a pragmatic and ethical imperative to empower younger subsets of the population to save our endangered planet. In this intervention, "environmentally correct curriculum", "being bombarded by negative imagery", "hopelessness" and patriarchy were mentioned as formidable obstacles to the engagement and involvement of the youth in shaping their ecological futures. The aesthetic experience allowed the participants to re-perceive environmental degradation from a fresh perspective. Consumerism was criticized, individual responsibility was underlined, and social and ecological empathy was developed. If these art-based interventions are incorporated into scholastic curriculums, they can help youngsters with long-term behavioral change. Also, the attainment of environmental literacy can be pursued in public domains in order to give a wider reach and benefit from the power of collective efficacy.

Partakers believed that juniors especially girls are usually sidelined when it comes to serious decision-making. They are not treated as genuine stakeholders of the future and Isfahan. Drama initiated some inter-generational dialogue through which the inalienable right of the youth "to participate", "to be heard" and "to take charge of their ecological futures" should be demanded. As Elham asserted passionately: "It is wrong to think that our parents or the older generations 'allow' us to participate. I completely disagree with this word. It is not a matter of 'permission' but 'our fundamental right'. We should and will claim it." On a more general level, the agency of Iranian women is playing and will play a critical role in shaping the future of Iran (Salehi et al., 2020). They are currently fighting for their civil rights, freedom, and gender equality. For decades, they have fought against deep-seated patriarchal values and customs.

¹² A Persian traditional game for children during which children form a human chain around a central figure and sing songs. Participants chose the earth to be the central figure in this collage.

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Intellectual property

We confirm that we have given due consideration to the protection of intellectual property associated with this work and that there are no impediments to publication, including the timing of publication, with respect to intellectual property. In so doing we confirm that we have followed the regulations of our institutions concerning intellectual property.

Research ethics

We further confirm that any aspect of the work covered in this manuscript that has involved youngsters. Their approval and parent's approval to participate in this work were obtained.

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