

STUDENTS CO-DESIGNING THE CHARACTERISTICS OF A DIGITAL MENTAL HEALTH PROGRAM: INSIGHTS FROM SLOVENIA

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Abstract

The pandemic-induced decline in the mental health of children and adolescents (Raccanello et al., 2022) underscores the necessity for effective, evidence-based programs promoting their mental health and resilience. The use of digital technologies by youth is increasing (Sevilla-Llewellyn-Jones et al., 2018), which has also led to the emergence of digital prevention programs that effectively address mental health issues (Wright et al., 2023). When tailored to the target group's specific needs, these programs provide flexibility, anonymity, and engagement, facilitating the transfer of skills into daily life (Lucas-Thompson et al., 2019). As part of the Erasmus+ project *me_HeLi-D*, we are designing a digital program for mental health and mental health literacy through a participatory approach, involving Austrian, Slovenian, and Polish students (12 to 15 years old). A key objective of this initiative is to enhance students' mental health literacy and well-being, emphasising that integrating technology, addressing youth-specific needs, and considering students' preferences are important for enhancing the effectiveness of digital programs (Baños et al., 2017). Two participatory workshops were held in three project partner schools, involving the end-users in identifying needs, generating ideas, and designing programme characteristics. We present the results from the second workshop conducted with 36 students from Slovenia attending the 7th/8th year of schooling. One of the participatory activities in the workshop included filling out feedback forms for students, featuring both closed and open-ended questions about the program's design. Students were asked to discuss avatars and their attributes, envision natural landscapes for presenting mental health components, and provide insights into how they wish to monitor their progress and achievements within the program. Analysing the open-ended questions, specific categories emerged related to the portrayal of natural landscapes (e.g., bodies of water) or the exclusion of certain visual elements (e.g., pollution) in the digital program. A majority of students expressed a preference for customizable avatars (e.g., clothing options). They indicated a desire for the main character to be human while the side character should be a cartoon figure or being. Tracking of progress should be presented with points and achievements as rewards. Our approach is designed to offer a digital tool that is tailored and captivating for the target age group, with the goal of enhancing the user experience and nonetheless overall effectiveness.

Keywords: *Mental health, digital program, youth, co-design, participatory workshops.*

1. Introduction

The pandemic has highlighted the urgent need for effective, evidence-based programs promoting the mental health and resilience of children and adolescents (Raccanello et al., 2022). With adolescents' increased use of digital technologies, effective digital prevention programs addressing mental health issues are being developed (Wright et al., 2023). Tailored to the target group's specific needs, these programs offer flexibility, anonymity, and engagement, facilitating skill transfer into daily life (Lucas-Thompson et al., 2019). As part of the Erasmus+ project *me_HeLi-D: Mental Health Literacy and Diversity*, we are designing a digital program for mental health and mental health literacy through a participatory approach, involving Austrian, Slovenian, and Polish students (12 to 15 years old). Their active participation ensures alignment with their daily experiences, promoting mental health in a relatable way. Emphasizing the integration of technology, addressing youth-specific needs, and considering preferences (Baños et al., 2017), the initiative aims to enhance students' mental health literacy and well-being. This paper presents insights into the preferred design of the digital elements of the programme, which can contribute to a more positive student experience and increased engagement with the programme, thus having direct and indirect effects on mental health (Umberson & Montez, 2010).

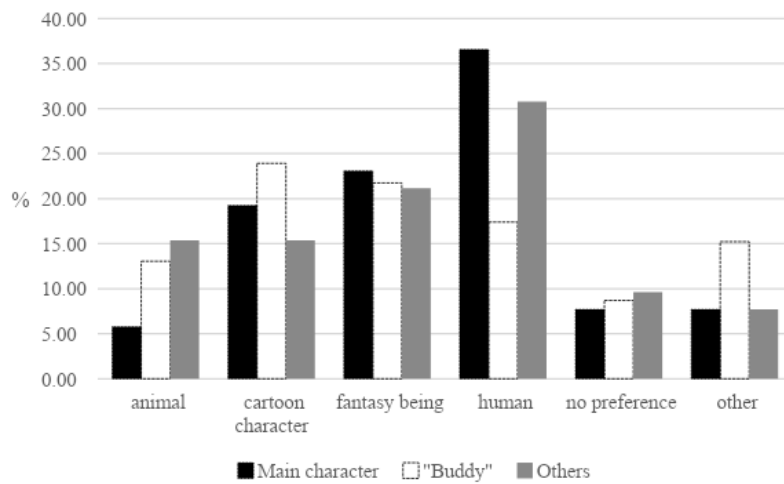
2. Method

Two participatory workshops in three partner schools involved students (as end-users) in shaping the program. Results from the second workshop with 36 students from two primary schools in Slovenia (7th/8th year; 12-14 years of age) are presented. Students filled out a form, featuring closed and open-ended questions about the design of the program, where they provided feedback on avatars, envisioned landscapes for mental health components, and shared insights on monitoring progress within the program.

3. Results

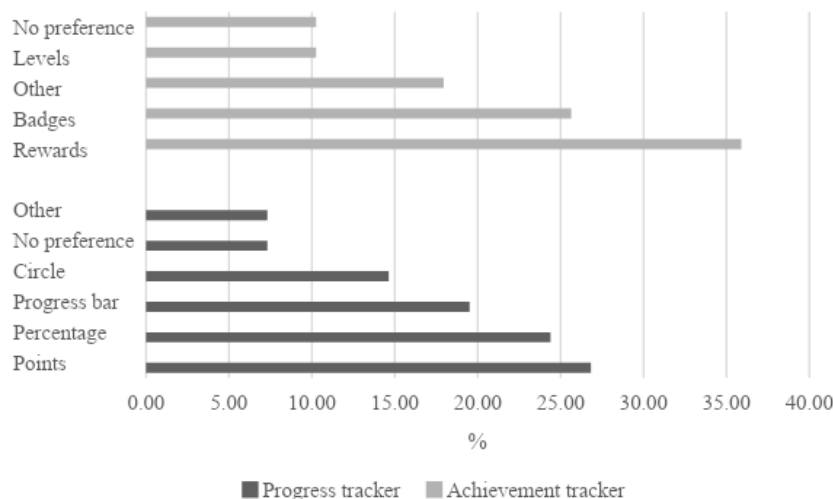
We present results on the students' preferences about avatars (customization, important characteristics, representation of characters), achievements, progress tracking and their envision of the natural landscapes (not) to be used in the programme. The majority of students (99.44%) prefer customizable avatars, particularly enjoying diverse clothing options (64%). Students also show interest in character type selection (39%; e.g., fictional character), avatar naming (36%), and hair customization (31%). They favour characters, both main and other, to be human (36.54% and 30.77%) and suggest a cartoon figure for the buddy figure (23.91%; refer to Figure 1). Additionally, students emphasize the importance of flexibility in freely choosing character representations in the program.

Figure 1. Preferred representation of the characters in the digital programme.



The students provided insights into how they wish to monitor their progress and achievements within the program (see Figure 2). The most preferred option for tracking achievements was rewards (35.90%) and points for monitoring their progress (26.83%). Additionally, students expressed a preference for having the flexibility to freely choose between various options.

Figure 2. Preferred representation of achievement and progress tracker.



Students were asked to envision natural landscapes, which will be used for presenting mental health components in the programme. Analysing the open-ended questions, specific categories emerged related to the portrayal of natural landscapes and the exclusion of certain visual elements in the digital program. In Table 1 we depict the recognized landscape categories, number of answers attributed to the category and specific student examples. The results indicate clear preferences for natural elements, especially for bodies of water and forests, while undesired landscapes are associated with pollution and dark places, or not recognized.

Table 1. Preferred and undesired landscape to be included in the digital programme.

	Landscape categories	f	Student examples
Preferred landscape	Body of Water	52	Sea (19), Lake (17), River (10), Beach and sea (2), Stream/creek (2), Waterfall (1), Water (general, 1)
	Forest/Trees	38	Trees (20), Forest (14), Bushes (3), Glade (1)
	Mountains	22	
	Natural places	16	Caves (5), Desert (5), Island (2), Coast (1), Valley (1), Natural units (1), Tundra (1)
Undesired landscape	Pollution	11	Litter/ Garbage (11)
	Nothing	11	
	Dark places	10	Swamp (4), Caves (3), Quicksand (1), Dark places (1), Mine (1)
	Buildings/ structures	3	School (2), Shops (1)
	Natural places	3	Desert (1), Abyss (2)

4. Conclusions

Our approach aims to provide a tailored and engaging digital tool for the target age group, enhancing both user experience and overall effectiveness. The results concerning the design of the programme indicate a majority preference for customizable avatars with various features, including human main characters and human or cartoon side characters. Landscape preferences leaned towards bodies of water while depicting pollution is undesired. The favoured tracking methods were achievement rewards and progress points. Additionally, the students emphasized the importance of flexibility in all program features. These insights inform program customization for improved student engagement and experience.

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