

Exploring Empathy Assessment in a Role-Play Format within Indian context

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Keywords

Empathy Assessment, Role-Play Games, Game-Based Learning, Human-Computer Interaction, Social-Emotional Learning

EXTENDED ABSTRACT

Empathy, a crucial social skill for communication and relationship building, permeates many spheres of our lives (Preston & De Waal, 2002). Cultivating empathy in children reduces violence and aggression, enhances critical thinking, fosters interpersonal problem-solving abilities, promotes emotional regulation, and contributes to personal development (Borke, 1973; Cohen, 2001; Cotton, 1992). Recent empathy-related research efforts have focused on designing tools and games, which are sometimes called "empathy games," to promote empathy development (Muravevskaia, 2023; Schutte, 2017; Bindman, 2018; Van Loon, 2018; López-Faican, 2021). However, there is a gap of research on incorporating assessment components into empathy games. Traditionally, empathy assessment has relied on self-reported measures or behavioral observation tools (e.g., Empathy Quotient, Toronto Empathy Questionnaire, IRI, ES, BEES, QMEE, AQ, Nursing Empathy Scale, Questionnaire of Cognitive and Affective Empathy) (Yalcin, 2019; Sesso, 2021). These methods may pose challenges for young individuals and necessitate specialized training for educators and researchers, potentially affecting assessment quality.

The manner in which individuals approach and engage in game activities can reveal valuable insights into human psychology, character, and skills. For instance, games have been utilized to cultivate communication skills and promote social change (Dhiman, 2023). Additionally, several studies have explored the integration of games into educational settings for learning assessment (Rafner, 2022). Role-playing serves as a primary mechanism for fostering empathy in children. We propose that incorporating role-play into the assessment of social skills and empathy could transform this process, enabling children to engage more actively and educators and psychologists to obtain more reliable results compared to traditional surveys, which are often incomplete or filled out automatically. Our research questions are as follows: What are the potential benefits of incorporating open-ended role-play into empathy assessment? And how can game research leverage the insights of educators, designers, and childhood researchers to better understand the framework for games as assessment tools?

Proceedings of DiGRA 2024

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Our study was designed to encourage explorations of designing games as assessment tools. We selected the KEDS Empathy Scale (Reid et al., 2013) as a comprehensive empathy measure encompassing affective, cognitive, and behavioral aspects of empathy. It utilizes a picture depicting children playing together, with one child remaining alone. Participants are asked to answer seven questions about the children in the picture (e.g., how a child feels, why they feel that way, and what they would do if they were that child). We designed our study to replace the static picture with a role-playing activity, providing children with greater agency over the scenario and their actions. Each role-playing episode is followed by the KEDS Empathy Scale questions. To date, we have conducted a pilot study with two groups of college students (8 participants each) from an Indian university (Kerala state). The first team played collaboratively, while the second team was divided into two parts and played competitively. The first team's play looked like a game of Charades, when one of the participants acted out a given emotion using only gestures and facial expressions without using any words or sounds. The rest of the participants were guessing what the emotion was expressed. After such warmup, the team was offered to role-play using roles and scenario, in which the selected emotion was contextualized. The participants enjoyed and cheered each other up. The second team were split into 2 parts. First, they needed to separately generate the number of emotions, roles, and places, as a preparation for the following game steps. Then, they needed to pick one of the emotions and act out the emotion to the other part of the team so that they would guess the emotion as well as scenario. Both parts of the team seemed to be confused and disappointed about the end of the activity and asked "Who won?" We are currently analyzing our pilot data and preparing for a follow-up full study.

We pose the following questions for further reflection and discussion within the DiGRA community:

1. **Collaborative versus Competitive Games:** Do collaborative or competitive games provide more valuable insights for empathy assessment?
2. **Observing Behavioral Aspects:** Which specific behavioral aspects should be observed and analyzed to complement verbal responses in a comprehensive empathy assessment?
3. **Unveiling Empathy through Group Dynamics:** How can group dynamics within the role-play activity reveal participants' empathy skills without disrupting the flow of the game through facilitator interruptions?
4. **Context and Scenario Adaptation:** What contexts and scenarios are appropriate and clear for different groups of children, considering factors such as age, gender, and culture?
5. **Child Involvement in Design:** What are the optimal design approaches to involve children in the development of such game-based empathy assessment activities (e.g., participatory design or co-design)?
6. **Cultural Considerations:** What type of adjustments should be made to scenarios and group dynamics to accommodate different cultural contexts (Aylett, 2009)?

Another challenge we encounter is that the majority of existing empathy assessment tools were developed in developed countries (e.g., USA, Europe). The application of these tools in developing countries (e.g., India, Nigeria, China) requires additional adaptation to align with the cultural norms and expectations prevalent in these regions (Aylett, 2009; Scherier, 2021, August). For instance, Scherier (2021, August) adapted the IRI empathy assessment tool for Nigerian youth due to the absence of

cross-cultural assessment tools, while Aylett (2009) encountered similar challenges when working with Chinese children. We intend to explore both cultural differences and similarities in designing games for empathy assessment to gain insights into the diversity of voices and perspectives. Our initial research steps have been conducted in India, with plans to expand to other countries in the future.

We propose that game studies can integrate with childhood psychology/development and social-emotional learning to render the assessment process more engaging, interesting, and accurate. These topics and reflections warrant further research on assessment games and role-playing to better understand how future game trends will impact our societies. We plan to further conduct game design activities with children in different countries to explore the culture-sensitive scenarios as well as appropriateness of different empathy game dynamics for diverse populations.

REFERENCES

- Farber, M., & Schrier, K. (2017). The limits and strengths of using digital games as empathy machines. Mahatma Gandhi Institute of Education for Peace and Sustainable Development UNESCO.
- Rafner, J., Biskjaer, M. M., Zana, B., Langsford, S., Bergenholtz, C., Rahimi, S., ... & Sherson, J. (2022). Digital games for creativity assessment: Strengths, weaknesses and opportunities. *Creativity Research Journal*, 34(1), 28-54.
- Dhiman, D. B. (2023). Games as Tools for Social Change Communication: A Critical Review. *Global Media Journal*, 21, 61.
- Schrier, K., & Farber, M. (2021). A systematic literature review of 'empathy' and 'games.' *Journal of Gaming and Virtual Worlds*, 13(2), 195–214. https://doi.org/10.1386/JGVW_00036_1
- Muravevskaia, E., & Gardner-McCune, C. (2023). Designing a Virtual Reality Empathy Game framework to create empathic experiences for children. *International Journal of Child-Computer Interaction*, 35, 100561.
- Schrier, K., Ohu, E., Bodunde, I., Alugo, M., Emami, C., & Babatunde, A. (2021, August). Piloting a game jam in Nigeria to support empathy and compassion. In *Sixth Annual International Conference on Game Jams, Hackathons, and Game Creation Events* (pp. 60-63).
- Yalçın, Ö. N. (2019, September). Evaluating empathy in artificial agents. In *2019 8th International Conference on Affective Computing and Intelligent Interaction (ACII)* (pp. 1-7). IEEE.
- Aylett, R., Vannini, N., Andre, E., Paiva, A., Enz, S., & Hall, L. (2009). But that was in another country: agents and intercultural empathy (pp. 329-336). *International Foundation for Autonomous Agents and Multiagent Systems*.
- Sesso, G., Brancati, G. E., Fantozzi, P., Inguaggiato, E., Milone, A., & Masi, G. (2021). Measures of empathy in children and adolescents: A systematic review of questionnaires. *World journal of psychiatry*, 11(10), 876.
- Schrier, K., Ohu, E., Bodunde, I., Alugo, M., Emami, C., & Babatunde, A. (2021, August). Piloting a game jam in Nigeria to support empathy and compassion. In *Sixth Annual International Conference on Game Jams, Hackathons, and Game Creation Events* (pp. 60-63).

Borke, H. (1973). The development of empathy in Chinese and American children between three and six years of age: A cross-cultural study. *Developmental Psychology*, 9(1), 102.

Cohen, J. (2001). Social and emotional education: Core concepts and practices. In *Caring classrooms/intelligent schools: the social emotional education of young children* (pp. 3–29).

Cotton, K. (1992). *Developing empathy in children and youth*. Northwest Regional Educational Laboratory.