

***Cartoonization Practices: The Visual Perspective of Learners With Intellectual Disabilities
in a Participatory Learning Environment***

Christina Flora, Universitas Multimedia Nusantara, Indonesia

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Abstract

Participatory learning is known as a form of teaching method that focuses on the learner, deemed suitable for learners with intellectual disabilities as it encourages engagement, attention, and flexibility in nurturing creativity, critical thinking, and awareness as a part of their cognitive ability. This mental ability can be sharpened through practice that involves the repetition process of observation, recognize, remembering, and interpreting, which interestingly can be found in cartoonization practice, as it is the practice of reconstructing a real-life image into a cartoon-like representation. The purpose of this research is to study the use of teaching cartoonization for intellectual disabilities learners in a participatory learning environment by analyzing the learner's drawing process and visual perspectives, such as how they receive and process information, identify, comprehend, and define the distinctive features of a person to finally execute it in a form of a painting. Participatory Learning and Action (PLA) and observation are used in this research with 13 young adults with intellectual disabilities, aged 25-30, as the main subject. The final results show that teaching cartoonization in the participatory learning environment tends to be effective in empowering their cognitive ability due to its enjoyability, attentive communication, and meaningful connection between the tutor and learners as they tend to be more patient in observing the real-life portrait to determine which unique characteristic they are going to maintain and which they can explore. Findings also suggest that they tend to understand instructions more by using a straight forward visual examples.

Keywords: Cartoonization, Visual Perspective, Participatory Learning, Intellectual Disabilities

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Introduction

Intellectual disability (ID) is a neurodevelopmental condition characterized by limitations in intellectual and adaptive functioning, commonly associated with an Intelligence Quotient (IQ) below 70, often facing challenges in learning and processing new or complex skills. Based on the American Association on Intellectual and Developmental Disabilities (AAIDD), intellectual disability is recognized by below-average IQ and adaptive behavioral disorders which are seen through conceptual, social abilities, and adaptive practices (Ningrum et al., 2020). According to the National Socioeconomic Survey's data results, there are 22.97 million people with disabilities in Indonesia, with 6.1 million people with severe disabilities (Bestianta, 2022). This significant population emphasizes the importance of Indonesia Law No. 8 Article 1 number 1 of 2016 which discusses the fulfillment of equal opportunities to support a standard of life for persons with disabilities of higher quality, justice, physical and spiritual prosperity, as well as dignity (Nurdin, 2022), highlighting the case where learners with intellectual disabilities require equal access to proper education in developing cognitive (cognitive means relating to the mental process involved in knowing, learning, and understanding things) and practical skills, enabling them to achieve greater independence, self-reliance, and active social participation with confidence.

Empowering people with intellectual disabilities in creative businesses provides opportunities for skill development, meaningful employment (a sense of purpose and fulfillment that creates a sense of accomplishment, impact, and overall well-being), and financial autonomy, due to its significant potential with an average annual growth of around 6.33%, offering a dynamic sector that welcomes individuals from diverse backgrounds. This industry promotes innovation, drives economic growth, and provides inclusive opportunities, pushing individuals to bring unique ideas and cultural expressions into the marketplace and fostering entrepreneurship (Sri Isnawati et al., 2023). Within Indonesia's creative industry, certain communities actively support members with intellectual disabilities, fostering their artistic talents and teaching them to monetize their work to support their economic independence, as well as highlighting their creative expression. These communities usually consist of intellectually disabled learners, their caretakers, and tutors. Implementing a conducive learning environment is substantial for learners with intellectual disabilities as it provides positive reinforcement accordingly. To increase learning conduciveness, conventional classroom teaching methods must be replaced with more dynamic approaches that incorporate students' learning needs for their transformative development and meaningful connection with their interests, environment, and even their community culture.

Presents diverse teaching practices underscores learners' participation in analyzing and understanding what is to be learned, hence increasing their creativity and problem-solving skills (Obadiegwu, 2012). Participatory learning is a peer-based learning process, derived from the word participation, which refers to the action of partaking in activities and projects to encourage mutual learning. This type of learning uses collaboration as a tool in mediating active communication between the students and educator. In this case, participatory learning can empower intellectually disabled learners as it focuses directly on the learners, emphasizing a learning-by-doing approach that encourages engagement, attention, and flexibility, thus nurturing creativity, critical thinking, and awareness as integral parts of developing cognitive abilities in learners with intellectual disabilities, fostering both personal growth and academic achievement. In addition, activity that applies repetition practices is proven to improve task performance due to continuous memory recollection. Cartoonization is a practice that involves the repetition process of observation, identifying, remembering,

and interpreting a real-life image so that it can be simplified and reconstructed into a cartoon-like, often exaggerated, yet recognizable illustrative representation.

The relationship between cartoonization as a repetition-based activity in a participatory learning environment and intellectual disabilities learners' creative process highlights a promising area for further exploration. Analyzing the visual perspective of learners with intellectual disability may also provide an in-depth examination of cartoonization's potential as a learning tool, which unfortunately remains under-researched and rarely discussed in existing literature.

Research Methods

Participatory Learning and Action (PLA), a qualitative method widely used in research involving local communities or groups, is used for this research. PLA consists of approaches to utilize the power relations between communities or insiders and outsiders, in order to analyze, understand, and gain insights of a community's situation as well as enable the community to understand their current conditions, determine the best approach to address their challenges, and empowered to take a move. The PLA method is conducted with the full and active participation of community members, ensuring inclusivity by intentionally amplifying the voices and opinions of the most marginalized communities and individuals. Tools and techniques are applied in a participatory manner, fostering collaboration and engagement throughout the process, often involving a series of hands-on exercises carried out directly in the field, promoting practical and context-specific solutions. Due to its participative nature, it implies that a fixed methodology or process is neither feasible nor preferable. Therefore, the approaches need to be flexible, adaptive, and innovative, emphasizing the value of seeking out multiple perspectives and embracing diversity so that the objectives of PLA can be accepted by the targeted community culture and condition (Coghlan & Brydon-Miller, 2014).

The method procedure for this study:

1. Tutors prepare a brief explanation related to Cartoonization.
2. Cartoonization exercise that involves simple instructions and practices, assisted by tutors and caretakers.
 - a. Exercise 1: Learners will observe and cartoonized two portraits chosen by the tutors on paper using markers.
 - b. Exercise 2: Learners will be asked to cartoonized a portrait of their own choosing on a canvas using markers.
 - c. Exercise 3: Learners will then color Exercise 2 using acrylic.
3. Observation during the whole Cartoonization process.
4. A forum group discussion is conducted with the members after the exercise.

The participants for this research are 13 intellectually disabled young adults aged 25-30 years old learners as the main subject, 13 adults or caretakers accompanying each learner, 3 tutors with arts and graphic design backgrounds, as well as 3 facilitators.

Findings and Discussion

Creating a cartoonized portrait for intellectually disabled learners is conducted through clear, straightforward, step-by-step instructions, while simultaneously demonstrating it for the learners to mimic. The first step is to observe the shape of the model's face in the portrait and

have them outline the face, using a simple half-ovalled shape or semi-circle for the head, continued by adding two large eyes. The learners need to decide the shape of the eye based on the characteristics of the model. They will question whether the model has a round-shaped or monolid eye and try to simplify the shape accordingly as instructed. The learners are then guided to identify the model's expression to decide the shape of the mouth. A simple curved line for the mouth facing upward to display happiness, while downwards to represent a more negative emotion. The nose and ears are next and they resume to draw the hair. Next, they are guided to draw the hair either straight, curly, or spiky. Illustrating the face is especially challenging, as it is an integral visual element in identifying a person's traits in a drawing.

According to the drawing results, seen in Figure 1, most of the learners tried to imitate the shape of the face and nose according to what the tutors demonstrated. On the other hand, the learners explored more shapes when drawing the eyes, adding intricate details and bringing out a more unique approach, and tried to apply the same practice when drawing the hair.



Figure 1: Cartoonization Using Marker on Canvas

Proceed to cartoonized the body, instructing them to draw basic shapes namely a rectangle, trapezium, or oval for the torso, with a neck connecting to the head. For the arms, they are directed to draw two straight lines extending from the body, then add simple triangle shapes to represent the fingers, following the legs by extending two lines downward and using rounded shapes or ovals for the feet. Lastly, the learners will add details by pointing out more meticulous characteristics of the model, such as accessories, patterns, and so on, finalized by coloring the illustration using acrylic paints, which is a more flexible step and prioritizes more on the learners's imagination and creativity. Each learners have their own freedom in choosing colors and decorating their drawings.

As seen in Figure 2, some learners decided to draw a different figure as they were not quite satisfied with the earlier results and drew the new illustration by repeating the same steps that were instructed in the previous exercise. Most of the learners chose colors according to the portrait they tried to cartoonized, while some used whatever they perceived as suitable,

empowering their decision-making ability and creating a unique color combination. In addition, although they color the illustration patiently, some learners have difficulties in their soft motoric skills, creating wriggling or rough edges and unbalanced paint spread.



Figure 2: Cartoonization Final Results

Based on the above discussion, it can be seen that the children's ability to interpret the same instructions in different ways is a prime example of problem-solving and divergent thinking, deemed as a good way to foster uniqueness in visual language, a reflection of their individuality, which is a valuable skill in creative fields and a potential asset for commercial purposes. In addition, teaching cartoonization using a participatory approach to community members provides valuable insights into creative instruction. It fosters an understanding of how diverse individuals interpret and express visual concepts, highlighting the importance of personalized guidance, and promoting constructive communication within the community. Learners tend to be happier, relaxed, less pressured, active, and motivated to interact more with their peers. They also learn to communicate their thoughts and compromise with the tutors and caretakers related to their ideas and visions, hence producing a more engaging environment and nurturing personal connection.

Conclusion

Cartoonization in a Participatory Learning environment affects intellectually disabled learners' creative process, indicating its differentiation and how their individual interpretations of a given task can lead to unique and marketable artistic outcomes, offering opportunities in the creative industry, such as merchandising. By embracing their individuality, these learners can gain confidence, develop artistic skills, and potentially achieve economic independence, contributing uniquely to the creative economy and expanding their career prospects. Unfortunately, due to PLA's time-consuming methods, there are some research tools that are yet to be applied, consequently, this research may lack quantitative data that could help in creating more comprehensive results. PLA methods also propose that PLA works better if facilitated by multi-disciplinary teams, therefore it is

advised to include people with different skills so that different viewpoints are recognized. Future research suggested a thorough visual language interpretation of the final cartoonization artworks.

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Contact email: christina.flora@umn.ac.id