

HOW TO IMPLEMENT GAMIFICATION AND SERIOUS GAMES INTO INTERVENTION FOR PEOPLE WITH AUTISM SPECTRUM DISORDER: A THEORETICAL APPROACH

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There is increasing evidence that gamification (implementing game design concepts in non-game contexts) and serious games (games built for the "serious" goal of education) are becoming more commonplace (Gamify, 2020), especially within the fields of education and health care (Baptista & Oliveira, 2019). This tip sheet, therefore, will attempt to provide research and a simple guide on utilizing these tools in treatment for people with autism spectrum disorder (ASD) by combining a motivation framework with concepts from person-centered planning.

Motivation: The Octalysis

According to Yu-Kai Chou in his TedTalk, "Gamification to improve our world," there are eight core drives to motivation in what he calls the Octalysis framework; for gamification to really be effective as an approach, it must address one or more of these eight drives (TedTalk, 2014).

01 Epic Meaning and Calling

Motivation because you feel as though you're a part of something bigger than yourself

02 Development and Accomplishment

Motivation because you feel as though you're improving

03 Empowerment of Creativity/Feedback

Motivation from the process of creation of things and their adaptation

04 Ownership and Possession

Motivation from owning and accumulating things

05 Social Influence and Relatedness

Motivation that comes based on what other people are thinking, saying, or doing

06 Scarcity and Impatience

Motivation that comes from wanting something you don't have

07 Unpredictability and Curiosity

Motivation that comes from being in suspense over something

08 Loss and Avoidance

Motivation that comes from not wanting something bad to happen



Person-Centered Planning

The Colorado Office of Employment First (COEF) uses this type of expertise in their evidence-based supported employment model (Supported Employment, n.d.). According to a presentation from Dr. Tiffany Cron (COEF's trainer in this specialty), person-centered planning starts with person-centered thinking; this means applying the concepts of self-determination and advocacy, and knowing how to listen to the person for them to be successful. Every person-centered plan is a holistic response to being able to listen to the person being served; it strives to

create a positive outlook and image of the person while collaborating and providing supports that will aid in fulfilling this goal (Cron, 2023). To be effective, the plan must always start with a purpose, but realize that the client's needs and desires will change over time, so constant updates are inherent to this type of planning (Cron, 2023). These principles, paired with the Octalysis framework, can allow providers to implement gamification and serious games into the intervention of their choosing, as seen in the following section.

Gamifying: Step-by-Step

01	Goal and Purpose Determination	Utilizing the person-centered planning process, find the "why" behind the gamification; ask what the purpose of the game is for the implementation. How will gamifying help the client reach their goal?
02	Implementing the Octalysis Core Drives	Once the purpose and goal have been determined, examine the core drives in Octalysis that will be most effective for the client. Will one type of motivation be more successful than the other? Will one cause harm?
03	Game Design Considerations and Creation	Using the information gathered from steps one and two, develop game design elements promoting behavior change, such as creating characters, applying incentives, or finding previously-made serious games.
04	Consultation from the Person and Care Team	Depending on the person being served, coordinate with other members on the care team, inviting them to "join the party;" remember that the center of the intervention is the person - so listen to them!
05	Maintenance, Updates and Leveling Up	Intervention does not stop once the game is created and implemented; continue to monitor how the client progresses, and allow for changes to be made based on client needs or wants.

Resources

- Dr. Zac Fitz-Walter's Website: <https://www.zacfitzwalter.com/>. An expert in Gamification; learn more about gamification, and get free access to his book about gamification.
- Yu-Kai Chou's Website: <https://yukaichou.com/>. More in-depth information from Chou about the Octalysis framework for motivation, his products and services, and more.
- Colorado Office of Employment Website: <https://employmentfirstcolorado.org/>. Learn more about supported employment, self-determination, and person-centered planning from the employment perspective. Expert: Dr. Tiffany Cron tiffany.cron@cuanschutz.edu
- The Learning Community for Person Centered Practices: <https://tlcpcp.com/>. A website providing further education and professionals who advocate for person-centered planning.

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