Gamer Tech to Teaching Tech—A Proposal for a Truly Gamified, Technology-Assisted Flipped-Classroom

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Current Students & The Flipped Classroom

- Millennial students consume media quite differently than previous generations, having grown up in the era of hyper-texts, social networking sites, and multiplayer video games. [1]
- Millennial students have developed different ways of thinking, different learning preferences, and gained specific technical skills, all of which will be best served and cultivated with a new educational approach. [2]
- Gamification has the potential to be profoundly innovative [3] but also founded in education as they are essentially operational presentations of contemporary learning theories. [4, 5]
- The flipped classroom model takes the idea of a traditional lecture or seminar style of teaching and replaces it with a more didactic and reflective style, which has become popular in medical settings. [6, 7]
- However, in the teaching of psychology evidence of its effectiveness is mixed 6 likely because of the inconsistencies in the execution of the teaching plans. [8]
- Flipped classrooms demand more of the students cognitively, which can help build a more confident and prepared clinician. [9]

Benefits of a Flipped Classroom

- The flipped classroom model takes the idea of a traditional lecture or seminar style of teaching and replaces it with a more didactic and reflective style, which has become popular in medical settings. [6, 7]
- However, in the teaching of psychology evidence of its effectiveness is mixed 6 likely because of the inconsistencies in the execution of the teaching plans. [8]
- Specific to psychology, we also see the use of out-of-class lectures, the use of technology, and the use of non-traditional sources like YouTube or TEDTalks. [8]
- Flipped classrooms demand more of the students cognitively, which can help build a more confident and prepared clinician. [9]

Consistent characteristics of successful flipped classrooms

- Teachers selecting readings or textbooks that offer "real" chances to reflect on the material. [8]
- Learning exercises that may aid in shifting perspective away from a student's dominant cultural framework. [9]
- Multiple students involved in interactive portions. [6]
- A flexible learning environment that challenges students in different ways. [9]

The Gamified Flipped-Classroom

Pedagogical Stages	Pedagogical Targets	Practice Examples	Gamified Role-Playing for Clinical Psychology
Stage 1: Establishing Knowledge Targets	Students assigned content-based learning targets.	Assign readings for content knowledge. Students teach themselves the basic content.	Psychopathology. Learning EBP treatments for various disorders.
Stage 2: Knowledge Assessment & Evaluation	Students are tasked with evidencing their knowledge acquisition.	Socratic questioning, vignette applications, applied problem solving, pop quizzes and scheduled tests.	Demonstrating the ability to: 1) Diagnose accurately, and 2) Identify EST and EBP treatments.
Stage 3: Knowledge Scaffolding	Instructor tests students for levels of comprehension, at both the individual and group levels.	Instructor provides content clarification (i.e., scaffolding) in deficient domains (via lecture, socratic questioning, & applied problem solving).	Show understanding for theory and patterns of reinforcement via functional analyses (ABC patterns). Case conceptualizing clients.
Stage 4: Game Training: Initiation into the gamified ecosystem	Game rules, norms, objectives.	Basic training for game rules, norms. Provide examples for how independently learned content domains are applied within the game ecosystem.	Building a "therapist" character-sheet, based on the skills, abilities and knowledge of a clinician. Student will use their therapist character in ongoing roleplays.
Stage 5: Knowledge Application	Entry-level application of static principles, concepts, vocabulary and other knowledge domains.	Premise for 'winning' in the first phase/stage of gameplay mirrors mirrors traditional approaches to testing (e.g., appropriate vocab, concepts, etc.).	Gamified Roleplaying: Diagnose. Treatment Planning. Match nomothetic interventions to the diagnosis.
Stage 6: Ability	Mid-level application of EBP and EST concepts, while demonstrating awareness of intersectionality of variables.	Critical thinking for tailoring nomothetic treatments based on ideographic client factors, in conjunction with cultural and structural systems.	Roleplaying vignettes: Show ability to build rapport, empathize with client experience and attend to relationships. Challenge student anxiety and impostor syndrome.
Stage 7: Skills	Clinical skills	Empathy, rapport, relational dynamics, addressing vulnerability in session, assertive conflict management, motivational Interviewing, & interpersonal process therapy.	Diagnose, treatment planning, interventions. Apply these with nuance to case conceptualize the ideographic origination and maintenance of a disorder, while considering culture and context.
Stages 8 and on: Generalization Training.	Full integration of knowledge, ability and skill-based domains. Developing a sense of one's professional identity, in practice.	Utilizing EBP approaches, integrating relevant models, tailored to client culture and contextual systems. Experimenting with therapist identity, style and personality (learning to embody one's own professional identity).	Apply everything within Stage 7, while attending to the interpersonal process in the moment (i.e., Therapist and Client intersectional dynamics). Process & Content: Holistic and comprehensive conceptualization of the client, interventions and therapy process dynamics.

Future Directions

- Incorporating a common language around game design mechanics and game dynamics for the purposes of designing more efficient, better game design. [10]
- Collaborating with professional game designers to develop gamified teaching interventions that are worth playing. [11]
- Further research in understanding how gamified interventions might enhance motivation, learn engagement, and lifelong knowledge and skill acquisition. [12, 13, 14]

References

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