



ENHANCING  
EMOTIONAL HEALTH:

CONNECTIVISIM THEORY,  
SYSTEMS THINKING,  
SIMULATION TRAINING & MUSIC

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# ABOUT: UNIVERSITY OF FLORIDA CONFERENCE

2024 Assessment in Higher Education:  
Enhancing Institutional Excellence through Innovations

Conference Paper:  
Enhancing Emotional Health: Connectivisim Theory, Systems Thinking, Simulation Training and Music

Guiding Theme and Question:  
Effectiveness - What assessment methods and practices are most effective, considering students unique characteristics?

Conference Info:  
Virtual Event hosted on March 21, 2024





# ABSTRACT OVERVIEW

- Introduction to connectivism, an adult learning theory by George Siemens and Stephen Downes, emphasizing digital connections and distributed learning (Siemens, 2004).
- Focus on connectivism applied to simulation technology, particularly virtual reality (VR), and music genres as forms of emotional regulation (Siemens, 2004).
- Utilization of data from a music mental health survey to evaluate the benefits of different music genres on mental well-being, supporting the integration of music in simulation training for enhanced learning outcomes.
- Sections of the paper include connectivism theory, simulation training and virtual reality, music for emotional health, the curve of forgetting (Ebbinghaus, 1885), and change management, highlighting the benefits of music-based interventions and simulation technologies in improving emotional well-being and learning outcomes (Downes, 2006; Weller, 2009).

## KEYWORDS

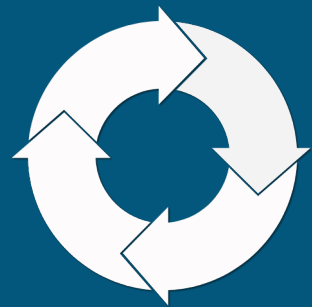
*connectivism theory*

*change management*

*simulation training*

# CONNECTIVISM THEORY

Connectivism focuses on learning as a network phenomenon influenced by technology and diverse perspectives.



## Network of Nodes

Knowledge exists in networks and learning is the process of connecting specialized nodes or information sources



## Diverse Information

Diversity of opinions and learning sources enhances learning through exposure to multiple perspectives



## Staying Current

Currency of knowledge is important as information changes rapidly and learning activities should stay updated



# SIMULATION TRAINING

## Why Immersive Learning?



Using virtual reality simulation is an effective way to train emotional and social skills. These simulations allow trainees to practice skills like empathy, communication, and dealing with challenging interpersonal situations in a realistic but low-risk setting.

# CHANGE MANAGEMENT STRATEGIES

- **Clear communication:** Ensuring stakeholders understand the rationale and benefits of integrating music and technology for emotional well-being. Communication should be frequent, transparent, and tailored to the needs of different stakeholders.
- **Stakeholder engagement:** Involving key stakeholders, including educators, therapists, administrators, and students/patients, in the decision-making process. Soliciting feedback and addressing concerns can foster ownership and commitment to the change process.
- **Training and support:** Providing comprehensive training and ongoing support to build capacity and confidence in using music and technology effectively. This may include technical training, pedagogical support, and emotional wellness training for educators and therapists.
- **Monitoring and feedback:** Establishing mechanisms for monitoring progress and gathering feedback throughout the implementation process. Regular feedback loops allow for course corrections and continuous improvement, ensuring the change initiatives align with the intended goals.

# RESEARCH QUESTIONS

- Do music-based interventions reduce stress and anxiety?
- Does age impact music-based interventions?
- Does the frequency of listening to music impact the reduction of stress and anxiety?

These questions guide the analysis of a music and mental health survey dataset to uncover insights into the relationship between music, technology, and emotional health.



# VARIABLES

1

## **Participants Age**

range from 16 to 89 years of age

2

## **Hours Per Day**

how many hours per day music is listened to

3

## **Listen to Music While Working**

Yes or No response

4

## **Favorite Genre**

genres include classic, country, EDM, folk, gospel, hip hop, jazz, K pop, latin, lofi, metal, pop, R&B, rap, rock and video game music

5

## **Self-Reported Anxiety**

on a scale of 0-10, with 10 being the highest

6

## **Self-Reported Depression**

on a scale of 0-10, with 10 being the highest

7

## **Music Impact**

Does music improve/worsen the respondent's mental health conditions?

# DATA ANALYSIS

## High Level Results

- 80% of participants listen to music while working
- 4 hours a day, participants on average, listen to music
- 64% of participants use Spotify as the primary streaming service
- 25 is the average age of participants in the study



- 75% of participants said that music improved the respondents mental health conditions
- 627 total participants included in the analysis
- 24% of participants' favorite genre to listen to is rock, 16% is pop, and 12% is metal

# RECOMMENDATIONS

- Therapists and treatment facilities using simulation training as a tool for emotional health regulation are recommended to incorporate music genres into the design of the application
- Individuals struggling with anxiety and depression are suggested to explore the usage of music with genres such as rock and pop to support emotional regulation.
- Streaming platforms such as Spotify are suggested to advertise music sharing, playlist following, and community building as a way to promote connectivity.





# FUTURE RESEARCH

- Music genres, streaming platforms, and listening habits impact emotional and mental health outcomes.
- Further investigation into age-related differences in musical preferences and their effects on well-being.
- The dynamics of music's effects in various contexts, such as work/study activities, and its potential moderating factors on anxiety and depression.
- The influence of streaming platforms and content curation algorithms on users' well-being.

**Q&A**

**THANK YOU**

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