## SWACSM Abstract

## Just Bust a Move; Relating Subjective Evaluation to Objective Measurements in Hip – Hop Dance

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## ABSTRACT

Being globally recognized as a performance art and mode of expression, Hip - hop dance is becoming more prevalent in today's modern dance and popular culture. With multiple renditions across the globe on what encompasses Hip - hop dance on various social media platforms and the different sub styles of hip-hop dance that currently exist, there are a limited number of ways to assess a dancer and their ability without relying on a high amount of subjectivity from those that are watching it. PURPOSE: To investigate the relationship between common dance moves (like the Arm Wave & Inverted Happy Feet) implemented into Hip - hop dance choreography and whether certain biomechanical aspects of those moves can predict how well a dancer may be evaluated in a competition. METHODS: Participants learned a brief Hip - hop dance routine, incorporating the aforementioned dance moves, for one week before data collection. After a brief warm up, the participants performed the learned dance choreography in a lab space while under a 3D motion capture system with force plates collecting kinematic and kinetic data. Video footage of each participant was also collected at this time. Videos of each participant's performance footage was then sent out to judges for scoring, and a series of regression models were run to determine how well judge's scores predicted discrete biomechanical variables related to performance of dance moves. **RESULTS:** Preliminary results suggest that displacement of the arm wave, propagation velocity of the arm wave, shape deviation of the arm wave, and ground reaction force symmetry during foot work have a significant role in predicting how a judge may score a dancer. CONCLUSION: These results indicate that the mechanical aspects of performing certain hip-hop dance moves are significant predictors of judges' scoring, lending insight into the degree to which scoring is related to the mechanics of Hip - hop dance itself. Thus, a certain level of objectivity in judges' scoring of hip-hop dance exists. Future work should consider how subjective factors such as age. sex/gender, and clothing choice may also influence judges' scoring.