

Conference Name: EduCon Tokyo – International Conference on Education, 20-21 January 2025

Conference Dates: 20-Jan- 2025 to 21-Jan- 2025

Conference Venue: TKP Ichigaya Conference Center, Building 2F, 8 Ichigaya Hachiman-cho, Shinjuku-ku, Tokyo 162-0844

Appears in: PUPIL: International Journal of Teaching, Education and Learning (ISSN 2457-0648)

Publication year: 2025

Han-Ju Ho, 2025

Volume 2025, pp. 81-82

DOI- <https://doi.org/10.20319/ictel.2025.8182>

This paper can be cited as: Ho, H.J.(2025). Behavioral Sequence Analysis in HMEAYC: A

Study on Initiating Actions and Movement Patterns Under Musical Rhythm Activities.

EduCon Tokyo – International Conference on Education, 20-21 January 2025. Proceedings of Teaching and Education Research Association (TERA), 2025, 81-82

BEHAVIORAL SEQUENCE ANALYSIS IN HMEAYC: A STUDY ON INITIATING ACTIONS AND MOVEMENT PATTERNS UNDER MUSICAL RHYTHM ACTIVITIES

Han-Ju Ho

*Department and Graduate Institute of Early Childhood Development and Education,
Chaoyang University of Technology, Taiwan*

t2024032@gm.cyut.edu.tw

Abstract

*This study aimed to analyze the sequential movement behaviors of children within the Holistic Music Educational Approach for Young Children (HMEAYC), focusing on how children initiate actions and follow movement patterns during musical rhythm activities. Specifically, it explored differences in movement behaviors between children with prior music experience and those without. **Methodology:** Participants were 75 children (43 boys and 32 girls) aged 3 to 6 years from kindergartens in central Taiwan. The researchers utilized video recordings, capturing over ten hours*

of footage, to observe and code children's movement behaviors. The coding scheme included six behavior categories: Observation, Execution, Correct Performance, Individual Performance, Abandonment, and Restart. The Social Competence Assessment System for Preschool (SBASP) was also employed to assess participants' social behavior, with a particular focus on self-control, interpersonal interaction, and learning behaviors. Sequential behavior analysis was conducted on the coded data to identify patterns of engagement. **Findings:** Cluster analysis revealed two distinct behavior patterns. Cluster 1 ($n=23$) consisted of children with lower prior music experience, characterized by linear and task-focused behaviors. The most significant transition was from Observation (O) to Execution (E) ($z = 8.53, p < .001$), indicating prompt engagement with tasks but limited reflection or strategy adjustment following mistakes. Children in Cluster 1 often repeated independent actions ($IP \rightarrow IP, z = 2.20, p < .05$) without reflecting on errors, highlighting a lack of adaptive learning. In contrast, Cluster 2 ($n=52$), with more children having prior music experience, demonstrated more reflective learning behaviors. The strongest transition was from Observation (O) to Execution (E) ($z = 5.08, p < .001$), followed by a notable transition from Correct Performance (CP) to Individual Performance (IP) ($z = 3.28, p < .01$), indicating that these children engaged in independent task experimentation after initially achieving success. **Research Outcomes:** Children with prior music experience (Cluster 2) showed greater capacity for reflective learning, using mistakes as opportunities to refine their actions. Conversely, children with less musical exposure (Cluster 1) exhibited limited behavioral flexibility, often repeating actions without adjustment. **Future Scope:** Future research should explore interventions that foster reflective learning behaviors, particularly in children with limited prior experience in music-related activities. Moreover, longitudinal studies could investigate the long-term impact of music education on children's cognitive and social development, offering further insights into the role of music in early education.

Keywords:

Holistic Music Educational Approach for Young Children (HMEAYC), Preschooler, Movement Patterns, Musical Rhythm