

# Seeing the Unobservable: An Exploratory Study of Incorporating Video Modeling into Piano Teaching

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## What is Video Modeling?

- ❖ Learners watch a video recorded demonstration and utilize the information acquired from the video to imitate, modify, and improve targeted skills.

## Three Forms of Video Modeling in Sport and Physical Education

- Self-Modeling: observing and evaluating self-performance
- Expert-Modeling: observing and analyzing professional and skilled performance
- Model's Superposition: comparing self-modeling and expert-modeling simultaneously

## Previous Research about Modeling in Music Instruction

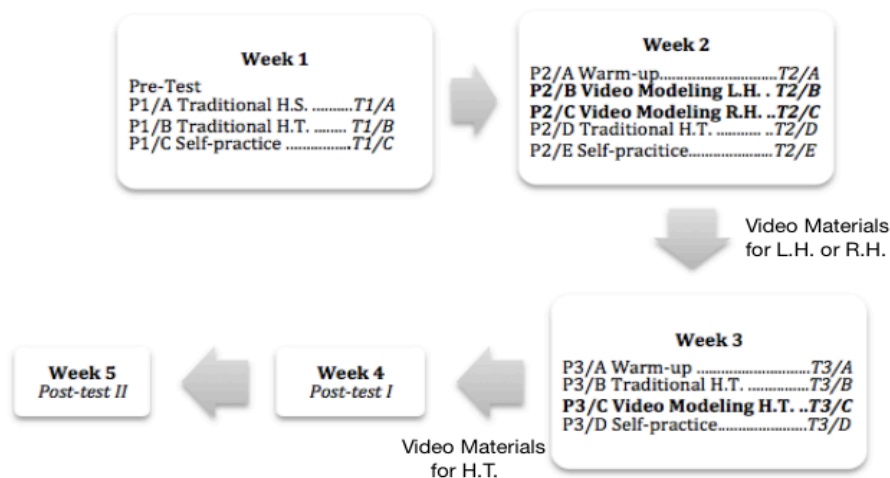
- Created audiotaped modeling for individual practice
- Compared audiotaped and videotaped modeling
- Utilized videotaped modeling for conducting skills
- Produced televised instruction
- Posted modeled performance on the internet

## Purpose of the Study

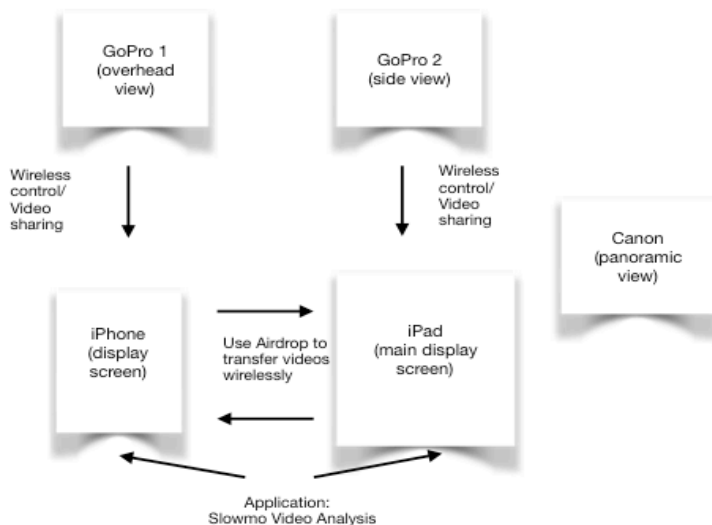
- ❖ The primary purpose of the study was to investigate the effectiveness of video modeling with video feedback in developing mid-to-late elementary piano students' motor skills in learning a given piece. The research also evaluated the benefits of this method for other aspects of performance, including pitch/rhythm accuracy, dynamics, balance, and artistry, as well as performance retention.

## Methodology

- Multiple baseline design across behaviors
- Participants: five elementary piano students (N=5)
- Piece: "Polka" Op. 39, No. 2 by Kabalevsky (L.H. *legato* melody, R.H. *staccato* accompaniment)
- Structure of the study



- Technology setup



- The use of video modeling
  - Incorporated expert-modeling, self-modeling, and the comparison of the two models
  - Used SlowMo Video Analysis application to display and analyze videos
  - Provided expert-modeling and personalized feedback videos for home practice during the second and third week of practice

#### Results (N=4)

- Incorporating video modeling during the piano lessons effectively improved all targeted motor skills in various levels across the participants. Video modeling during the lessons showed to be more effective on the targeted motor skills in one hand than both hands together.
- The benefits of video modeling seen in targeted motor skills are also positively reflected in their overall scores in other aspects of performance, however, the improvements in each category of the other aspects, including pitch/rhythm accuracy, balance, dynamics, and artistry, were inconsistent across the participants.
- The video materials for home practice showed general positive impacts on the targeted performance. Video materials for the hands-together performance during the third week of practice were more beneficial than for a single-hand performance during the second week of practice.
- The result of post-test II indicated that all participants were able to retain and continue refining the hands-together performance one week after removing the video materials from the fourth week of practice.

#### Video Modeling Pros and Cons

Pros	Cons
<ul style="list-style-type: none"> <li>• Restricts the field of focus</li> <li>• Allows multiple viewings</li> <li>• Allows learners to watch at their own pace</li> <li>• Assists visual learning</li> <li>• Directs attention to relevant aspects</li> <li>• Promotes self-assessment</li> <li>• Facilitates critical thinking</li> </ul>	<ul style="list-style-type: none"> <li>• Requires longer instructional period</li> <li>• Disrupts teaching flow due to technology malfunction</li> <li>• May cause distractions due to improper use of technology</li> <li>• Increases studio expense</li> </ul>

References in the handout refer to the dissertation titled “*The Effectiveness of Video Modeling with Video Feedback on a Given Piece for Mid-to-Late Elementary Piano Students.*”

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