



# New Technology: Point Motion and Music Therapy

Charlay Yates, MA, MT-BC  
William E. Carter School  
Boston, Massachusetts

As technology continues to play a larger role in everyday life, there are additional opportunities for its use within music therapy practice. Clements-Cortés (2013) states that electronic music technologies (EMTs) are an "excellent motivator for clients to engage in music therapy, particularly for children and adolescents" (p. 37). EMTs can be adjusted to meet the particular needs of children with disabilities and afford additional means of self-expression and identity formation.

Electronic music technologies can be embedded in many music therapy services, including individual and groups sessions, recreation, performing, and composing. According to Magee and Burland (2008), EMTs should be used in conjunction with acoustic instruments and only introduced if a client's needs cannot be met with acoustic instruments. Music therapists agree that technology is best used with active interventions, and acoustic instruments are preferred for receptive music activities. Use of technology is warranted when it creates experiences that could not otherwise occur, while still maintaining a high-quality music experience (Crowe & Rio, 2004). Point Motion was developed with these thoughts in mind.



## What is Point Motion?

Developed by Berklee College of Music Alumni Kevin Clark, Point Motion was created to give therapists a means of collecting client assessments remotely via interactive motion control software. Targeted to fit the needs of early childhood and elementary aged children, Point Motion offers a variety of activities or "games." The program is a motivating tool for helping children with severe disabilities and complex medical health needs independently experiment with music. With a combination of recorded music and computer technology, available on any computer or iPad with a camera, students move to music while the program tracks the movement of the user's body. It then sends the data to the computer which translates it into a specific sound or musical phrase. Individuals "calibrate" by assuming a pre-determined position after which they are free to move however they wish. During the virtual instrument mode, arm movements trigger different notes, either sustained or staccato, to create a melody. Another mode allows individuals to pop bubbles as they fall from the top of the screen. The frequency at which the bubbles fall can be modified, allowing for faster or slower movements. A third mode is a game of musical Simon Says where the individual must "assume the

position" in a given amount of time. The final mode is a freeze dance, where the individual must freeze when the music stops. The program collects data, including reaction time and range of motion, from each of these modes and charts them to be analyzed later. It shows which extremities move and the frequency of that movement.

## Point Motion in Music Therapy

Along with academic goals, music therapy can address functional life skills such as communication, socialization, and self-help. According to Pellitteri (2000), "The goals of music therapy are to improve one's psychological functioning through the use of musical experiences. Music therapists tap into the power of music to arouse emotions that can be used to motivate and engage clients" (p. 381). A child with limitations in hand and arm movements, when motivated to engage in music making, may reach for an instrument at a strategically placed distance, thus increasing extension. In the area of perceptual awareness, music is used to enhance awareness of the client and their surroundings. As a non-threatening and play-based modality, Point Motion addresses a variety of music therapy goals, such as:

- Enhancing awareness of self and others
- Developing sustained attention and focus
- Increasing range of motion
- Understanding cause and effect
- Learning relaxation skills



Video demonstration available  
at <https://www.youtube.com/watch?v=Sy0akKXliRM>

## Conclusion

Point Motion's goal is to give every child 24/7 access to monitored therapeutic enrichment. Point Motion will continue to develop programs which serve the needs of children with developmental delays and special needs. To learn more about the use of Point Motion, visit [www.poinmotioncontrol.com](http://www.poinmotioncontrol.com).

## Case Example

Point Motion was implemented for the last year in classrooms of five students ages 12 to 22 who presented with both severe, intensive disabilities and complex medical health needs. The music therapist and physical therapist selected students with a wide range of abilities to interact with the program. Students appeared motivated by the novel technology and demonstrated decreased levels of distress as evidenced by calmer bodies, more intentional movements, and decreased crying behaviors. Students also appeared motivated by the use of the different modes as evidenced by increased attention and increased range of motion. During the virtual instrument mode, students were able to develop cause and effect skills which helped them to develop a sense of self and their relationship with the world.

## References

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## About the Author



Charlay Yates, MA, MT-BC, works with adolescents with severe disabilities and complex medical health needs in Boston, MA. Her passion is to use the latest technology to support her clients in music making and expression.

Contact: [charlay.yates@gmail.com](mailto:charlay.yates@gmail.com)