

LIFT App in the Classroom: Creative Expression through Gesture-Controlled Music at Woodside Academy

Overview of Case Study

The **LIFT App** is a gesture-controlled music creation platform developed to enable access to music improvisation and creation for individuals with physical and cognitive impairments. Through intuitive, hands-free interaction, LIFT removes common barriers to musical engagement and delivers therapeutic benefits including enhanced emotional regulation, focus, and confidence.

This case study examines the trial use of LIFT at **Woodside Academy**, a SEND school in Bexley, London, supporting autistic students aged 4–16 with a wide range of complex learning needs.

Background: Why Lift?

Music is widely recognised as a therapeutic tool, particularly within SEND environments. However, access to music-making tools remains limited for students with physical disabilities or severe cognitive challenges.

LIFT was developed to address this gap by offering:

- Gesture-based control for inclusive access
- Simple, low-cost setup
- No reliance on fine motor skills or verbal commands
- High adaptability for one-on-one and group sessions

Its benefits include encouraging movement, calming agitation, stimulating creativity, and providing a sense of agency with an accessible route to self-expression.

Trial Context: Woodside Academy

Structure of Sessions

- When: Tuesdays during term time
- Where: Woodside Academy, Bexley
- Who: Students aged 4–16 with varying SEND profiles
- Format:
- Group Sessions: 6 classes (8–12 students each), 20–30 minutes per session
- One-on-One Sessions: 3 students per week, 20 minutes each

Staffing

- School staffing ratio 4:1
- LIFT Operator
- Data Collector (for the case study)

Setup

- iPad mounted on a stand
- Bluetooth speaker
- Simple room arrangement to minimize distractions

Key Observations

Participation and Engagement

- Around **80% of students** actively participated in each group session.
- Students often requested specific tracks, showing **memory retention** and **musical preference**.
- Engagement was sometimes hindered by adult prompts/distracted by others.

Group vs. Individual Sessions

- One-on-One sessions offered deeper focus and less distraction.
- Several students showed improvements in autonomy and interaction.

Pupil A: Significant Progress

- Initial Group Sessions: Required physical prompting to participate
- Week 1 (1:1): Moved arms voluntarily with encouragement
- Week 2 (1:1): Approached and used the app independently
- Follow-Up Group Session: High focus, self-initiated participation, evident enjoyment

Pupil B: Gradual Engagement

- **Group Sessions:** Often disengaged, focused on his book
- Week 1 (1:1): Smiled, engaged with guidance and encouragement
- Week 2: Absent

Pupil C: Mixed Outcomes

- **Group Sessions:** Initially reluctant to part with a personal object and often distracted.
- Week 1 (1:1): Arrived agitated and looked out the window. With prompting, pressed play but was quickly distracted by a teacher talking nearby.
- Week 2: Absent

Barriers Addressed by Lift

Traditional Challenges How LIFT Helps

Complex hardware/software Plug-and-play iPad app

Need for fine motor skills Full-body or limb-only gestures

High setup and equipment cost Low-cost, uses mobile devices

Overwhelming group environments Usable in group or individual settings

Inaccessible instruments Music without physical contact

Educator Feedback

"I really understand the purpose of the app and can see many ways it can be incorporated into music education for all – it is extremely inclusive and would work for any age and any level of need."

Louise Matthews, Bexley Music Manager – Inclusion Lead

Louise highlighted LIFTt's **age-appropriate sound design**, noting its **avoidance of infantilizing nursery rhymes** in favor of **emotionally engaging**, **contemporary sounds** suitable for older students.

Key Takeaways

- LIFT fosters a **sense of agency and creative joy**, even in students with severe disabilities.
- Teacher understanding and attitude toward the app significantly affects student engagement.
- Consistent exposure leads to increased independence and focus.
- Quiet, individual settings can be more effective for students prone to sensory overwhelm.

Next Steps

- Continue and expand one-on-one sessions
- Further educate staff about LIFT's therapeutic intent
- Collect more **longitudinal data** to track developmental impact
- Explore wider rollout across other SEND schools

Contact

For more information about LIFT or to explore partnership opportunities, please contact:

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