

Case Study: Increasing Engagement, Communication, and Teachability in a Toddler with ASD Using Play-Based Behaviour Intervention

Keywords

Autism Spectrum Disorder; Functional Communication; Behaviour Support; Early Intervention; Engagement; Toddler; Learning; Play-Based

Background and Referral Reason

“Jay” (pseudonym) is a 3-year-old child diagnosed with Autism Spectrum Disorder Level 3. At intake, Jay presented with:

- High levels of self-stimulatory behaviour interfering with socialisation, communication, and learning
- Limited awareness of people and the environment
- Communication restricted to hand-leading or expecting adults to anticipate needs
- Limited eye contact
- Difficulty transitioning away from preferred items and activities

Context

Jay had been attending Speech Therapy and Occupational Therapy with minimal progress. He briefly attended day care, but the environment was unable to meet his needs. Jay is an only child living with his family, who expressed concerns about his limited functional communication, reliance on caregivers, and difficulty expressing wants and needs.

Family Goals

- Communicate needs clearly
- Increase functional speech
- Reduce behaviours of concern

Assessment Framework

Assessment included:

- VB-MAPP
- ESDM Checklist
- Direct observation
- Caregiver interviews

Summary of Findings

Assessment results indicated:

- Limited receptive and expressive communication
- Limited imitation skills
- Daily minor problem behaviours (whinging, crying during transitions)
- Restricted communication methods
- Impaired listener responding and intraverbal skills
- Impaired social functioning
- Limited motivation to learn
- High rates of self-stimulatory behaviour interfering with functioning

These findings informed an individualised intervention plan aligned with Jay's developmental needs and family goals.

Intervention Goals

- Increase functional communication
- Increase engagement and access to learning opportunities
- Increase awareness of environment and people to support positive teaching relationships

Intervention Approach

1. Rapport and Engagement

The therapist initially followed Jay's lead, providing free access to preferred toys and activities. The therapist paired themselves with reinforcement by:

- Making activities work
- Offering fun ideas
- Providing undivided social attention
- Helping when needed
- Avoiding demands initially

As Jay's trust increased, the therapist introduced small, simple demands within play to build instructional control. This predictable, consistent approach improved Jay's engagement and willingness to participate in learning opportunities.

Communication Support

- All communication attempts (verbal and non-verbal) were honoured initially
- Pointing was shaped into a reliable communication method
- Pointing was paired with vocal approximations
- Vocal attempts were reinforced immediately
- Over time, Jay progressed to using 1–2 functional words

Caregiver Involvement

Jay's caregiver was encouraged to join sessions, observe strategies, practise them with Jay, and collaborate with the therapist to embed strategies into daily routines.

2. Core Strategies Used

- Functional Communication Training (FCT)
- Early Start Denver Model (ESDM) principles
- Applied Behaviour Analysis (ABA) principles
- First–Then language
- Fixed reinforcement schedules with gradual thinning
- Play-based learning
- Natural Environment Training (NET)

- Behaviour differentiation (mild vs severe)
- Shaping
- Modelling

3. Skill-Building Focus

- Communication
- Imitation
- Joint attention and social engagement
- Following instructions and cooperation

Outcomes

Functional Communication

After approximately four months of intervention and caregiver practice:

- Jay independently used pointing to communicate at 80%+ independence
- Jay progressed from babbling/self-stimulatory vocalisations to using his voice to communicate wants and needs more than 50% of the time
- FCT increased the clarity and consistency of Jay's communication

Imitation

- Jay mastered 1.1 imitation targets per session
- Thick reinforcement schedules supported rapid acquisition
- Improved object imitation enabled teaching of vocal imitation
- Vocalisations increased from 3 per hour to 30 per hour over eight months

Joint Attention and Social Engagement

- Initially limited due to high self-stimulatory behaviour
- Within five months, Jay engaged in joint attention and shared experiences on 80%+ of opportunities

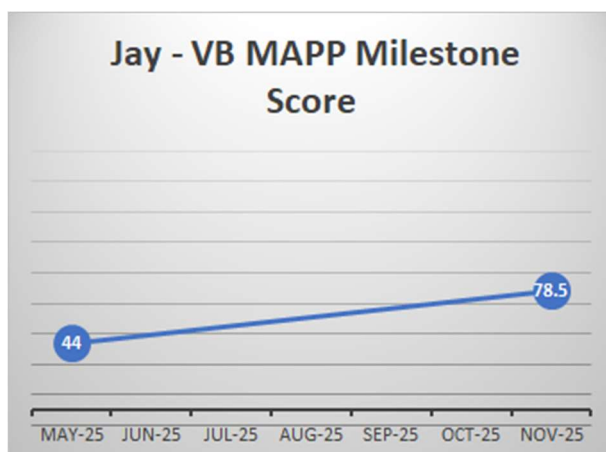
Following Instructions and Cooperation

Jay demonstrated significant improvements in:

- Relinquishing preferred items calmly
- Responding to his name with eye contact and a smile
- Following simple instructions
- Cooperating with demands in a play-based context

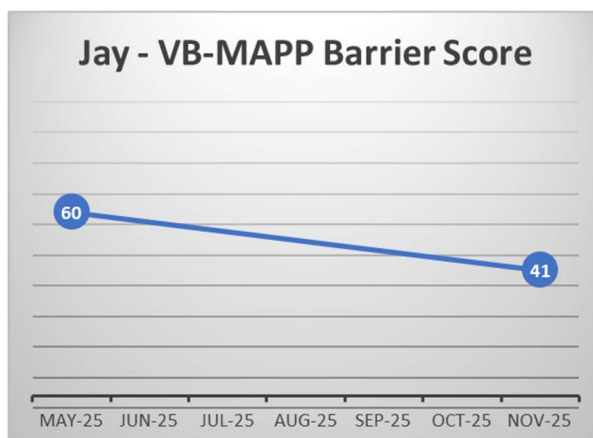
These foundational skills increased Jay's teachability and ability to participate in structured learning.

Figure 1. VB-MAPP Milestones Assessment Scores (Jay)



Shows Jay's progress across communication, social, and learning domains.

Figure 2. VB-MAPP Reduction in Barriers Scores (Jay)



Demonstrates reduction in learning and behavioural barriers over time.

Current Functioning

Jay is now able to:

- Communicate 'wants and needs' more consistently
- Respond to instructions more reliably
- Acquire new skills at a faster rate

He continues to work on developmental gaps identified through assessment and caregiver priorities.

Discussion

- The clinical team and caregivers collaborated to identify priority areas and implement evidence-based interventions
- The therapist worked from within Jay's world, using his interests and strengths to build new skills
- Jay's functional capacity increased, enabling more effective learning
- Improved functional communication supported greater independence

Conclusion

Jay's progress demonstrates the effectiveness of early, individualised behaviour support grounded in proactive teaching, personalised reinforcement, caregiver collaboration, and functional assessment. His increased engagement, communication, and teachability highlight the value of structured, play-based intervention for toddlers with ASD.

Disclaimer:

This case study reflects the experience of one child. Outcomes vary based on individual strengths, needs, and circumstances. No guarantee of similar results is implied.