

The Advancing Social-Communication And Play (ASAP) Intervention in Elementary School Settings: A Single Case Design Study

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BACKGROUND

Recent estimates indicate that around 30% of children with ASD are minimally verbal (Tager-Flusberg & Kasari, 2013), which would represent around 133,000 students in public schools in the United States (U.S. Department of Education, 2014). This group of students has been largely excluded from research (Tager-Flusberg & Kasari, 2013). As such, school programs are in need of evidence-based interventions to target core deficits in children with ASD who are minimally verbal.

The Advancing Social-Communication and Play (ASAP, Watson et al., 2011) intervention is a manualized program designed for public preschools. It addresses a hierarchy of social-communication and play skills in one-to-one and group settings within the classroom using evidence-based strategies. Older children with ASD who are minimally verbal typically have difficulty with the early social-communication skills that are targeted in the ASAP intervention.

RESEARCH AIMS

The purpose of this study is to examine the impact of the ASAP intervention on school-age children with ASD, and adapt the intervention for elementary school settings with the following specific aims:

- Does implementation of the ASAP intervention improve social-communication and engagement of elementary school children with ASD?
- Is the ASAP intervention feasible and acceptable in elementary school classrooms serving children with ASD?

PARTICIPANTS

Students

- Three male elementary school students

| Student | Age | Grade | Race/ Ethnicity | ADOS Total | ADOS Severity | REEL RL-AE | REEL RL-AE |
|---------|-----|-------|---|------------|---------------|------------|------------|
| A | 9 | 4 | Multi-racial/ethnic White, Hispanic/Asian | 20 | 7 | 27 m | 14 m |
| B | 5 | KG | Asian, Non-Hispanic | 15 | 6 | 29 m | 25 m |
| C | 7 | 1 | Black, Non-Hispanic | 21 | 7 | 11 m | 7 m |

Teachers

- Three white, non-Hispanic females
- All had at least 5 years experience

PROCEDURES

The study is a multiple baseline, single case design across participants.

Baseline Phase

- 10-minute videotaped sessions, 1:1 with teacher
- Instructed to engage child

Training

- 3-hour training on ASAP
- Teacher and at least 1 other school staff

Intervention Phase

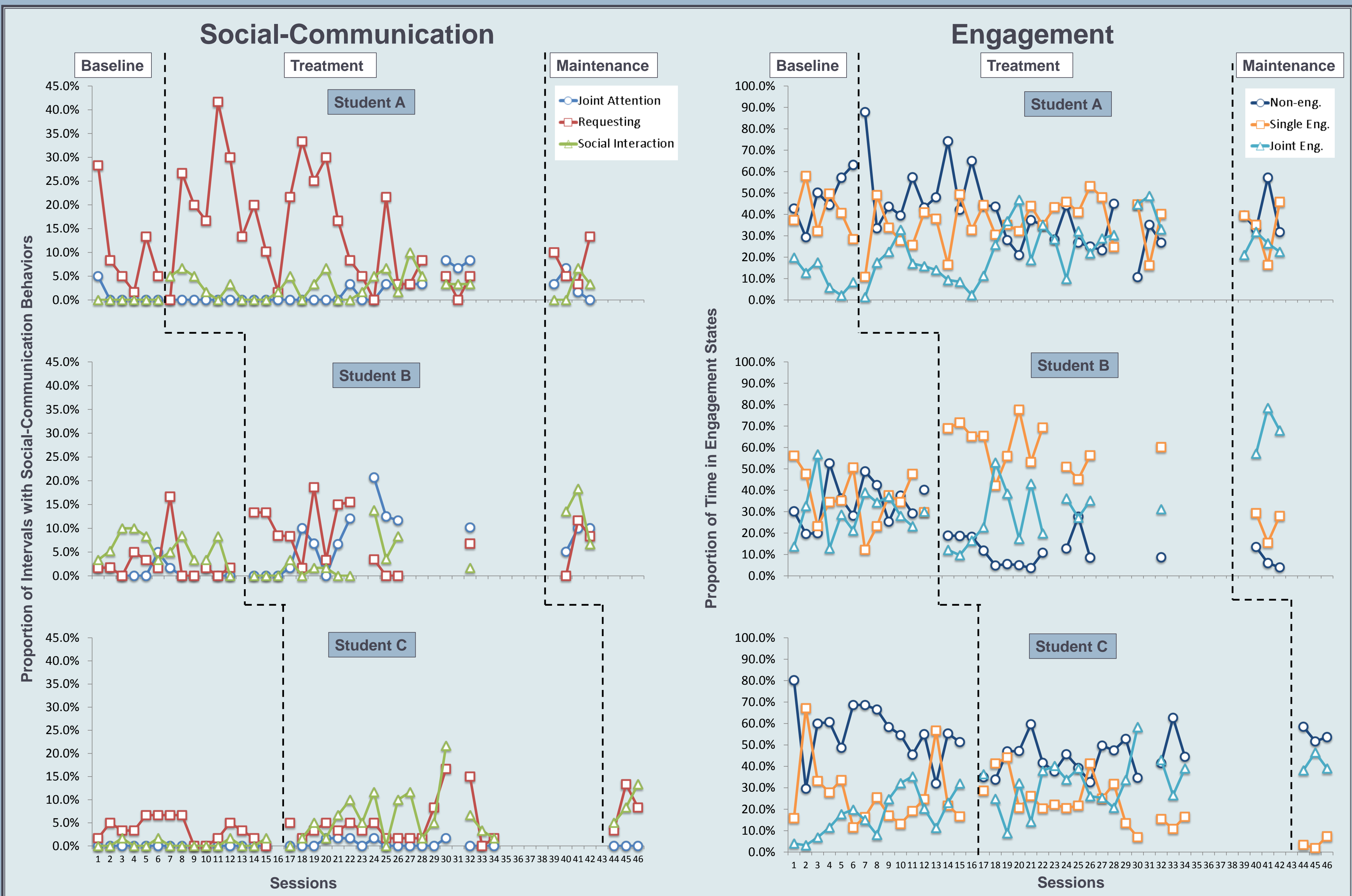
- 10-minute videotaped sessions, 1:1 with teacher
- Embedding ASAP in instruction
- Ongoing coaching throughout intervention

Fidelity Data

- Data analysis in progress

| | Teacher A | Teacher B | Teacher C |
|---------------|---------------|-----------|-----------|
| Early session | 3.8/4.0 | 3.8/4.0 | 3.6/4.0 |
| Late session | Not yet coded | 3.9/4.0 | 3.8/4.0 |

RESULTS: SINGLE CASE DESIGN



DEPENDENT VARIABLES

Coder Training

- Trained to reliability on classroom and semi-structured assessment videos

Social-Communication Coding

- Social interaction (SI), requesting (RQ), and joint attention (JA) – prompted and independent
- 10 sec. interval coding on Noldus Observer

Joint Engagement Coding (Adamson et al., 1998)

- Unengaged, onlooking, object only, person only, supported joint, coordinated joint
- Continuous coding on Snapshot

Reliability (at least 20% of videos)

| | SC Prop. Agree | SC Kappa | Eng. Prop. Agree |
|-----------|------------------|------------------|------------------|
| Student A | .96 (.94-.98) | .95 (.94-.97) | .77 (.61-.84) |
| Student B | .94 (.87-.98) | .94 (.85-.97) | .78 (.73-.87) |
| Student C | .97 (.94-.99) | .96 (.93-.98) | .79 (.62-.86) |

RESULTS: FEASIBILITY

Teacher Questionnaire

- Used the URP-I to assess acceptability of the intervention
- Average total scores ranged from 5.0-5.7 on 6-point scale
 - Training, coaching, & support: 5.2 (5.0-5.4)
 - Feasibility & acceptability: 5.3 (4.7-5.9)
 - Usefulness & effectiveness: 5.3 (5.1-5.9)

Teacher Interviews

- Used a semi-structured interview to examine feasibility, acceptability and impact of training and coaching and implementation
- Qualitative analysis in progress

CONCLUSIONS

Impact of ASAP-E

- Student A
 - Increase in RQ, later increases in SI & JA
 - Increase in joint engagement
- Student B
 - Increase in RQ & JA
 - Decrease in non-engagement
- Student C
 - Increase in SI

Future Directions

- Revise the ASAP manual for elementary school setting
- Conduct a larger study with the revised manual

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The research reported here was supported by the Organization for Autism Research (OAR) to the University of North Carolina at Chapel Hill. The opinions expressed are those of the authors and do not represent views of OAR.