Educators' attitudes and experiences of using technology with autistic pupils in special education

Margaret Laurie [1], Andrew Manches [2], Sue Fletcher-Watson [1]

[1] The Patrick Wild Centre, [2] Moray House School of Education

Background

- Children with autism are frequent users of technology (1)
- Technology can support a range of educational and clinical outcomes for pupils with autism, in both mainstream and specialist schools (2,3)
- Parents and professionals have reported concerns about using technology in practice (4)

Objective: To explore the experience and attitudes of education professionals working with children with autism and using technology

Methods

An online survey gathered practitioners responses (N = 186) to questions about

- Individual and occupational demographics
- The training/guidance received about technology implementation
- Devices and software used with supported pupils
- The function and impact of technology use in the classroom
- Attitudes to technology use with children in general, and with autistic children

Background/occupation of respondents
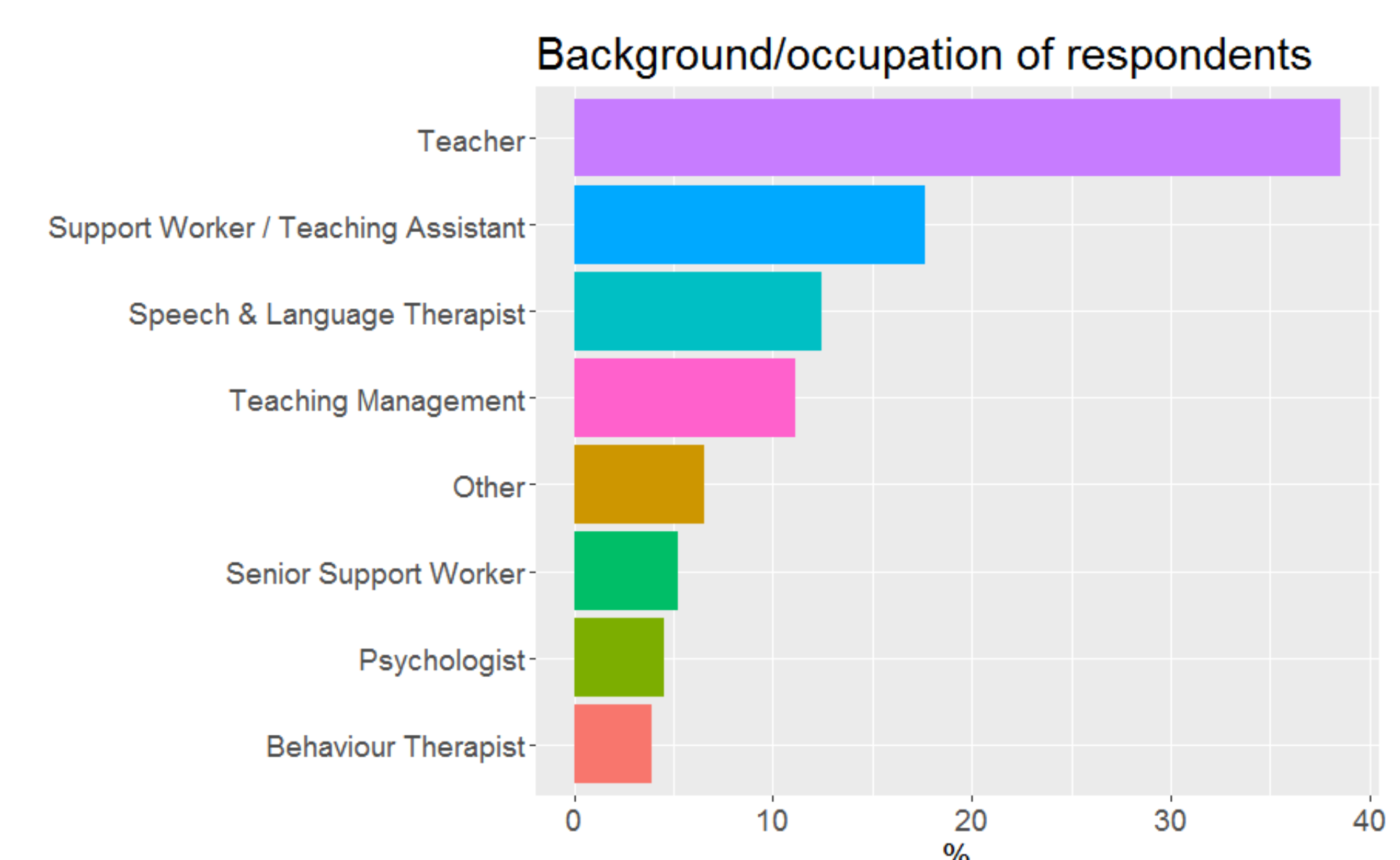
Results

1. Technology-related training

There was relatively little formal training reported. 80% of respondents said they would like **more training**. Over 70% said that the training offered was useful to them.

Sources of training & guidance on technology implementation
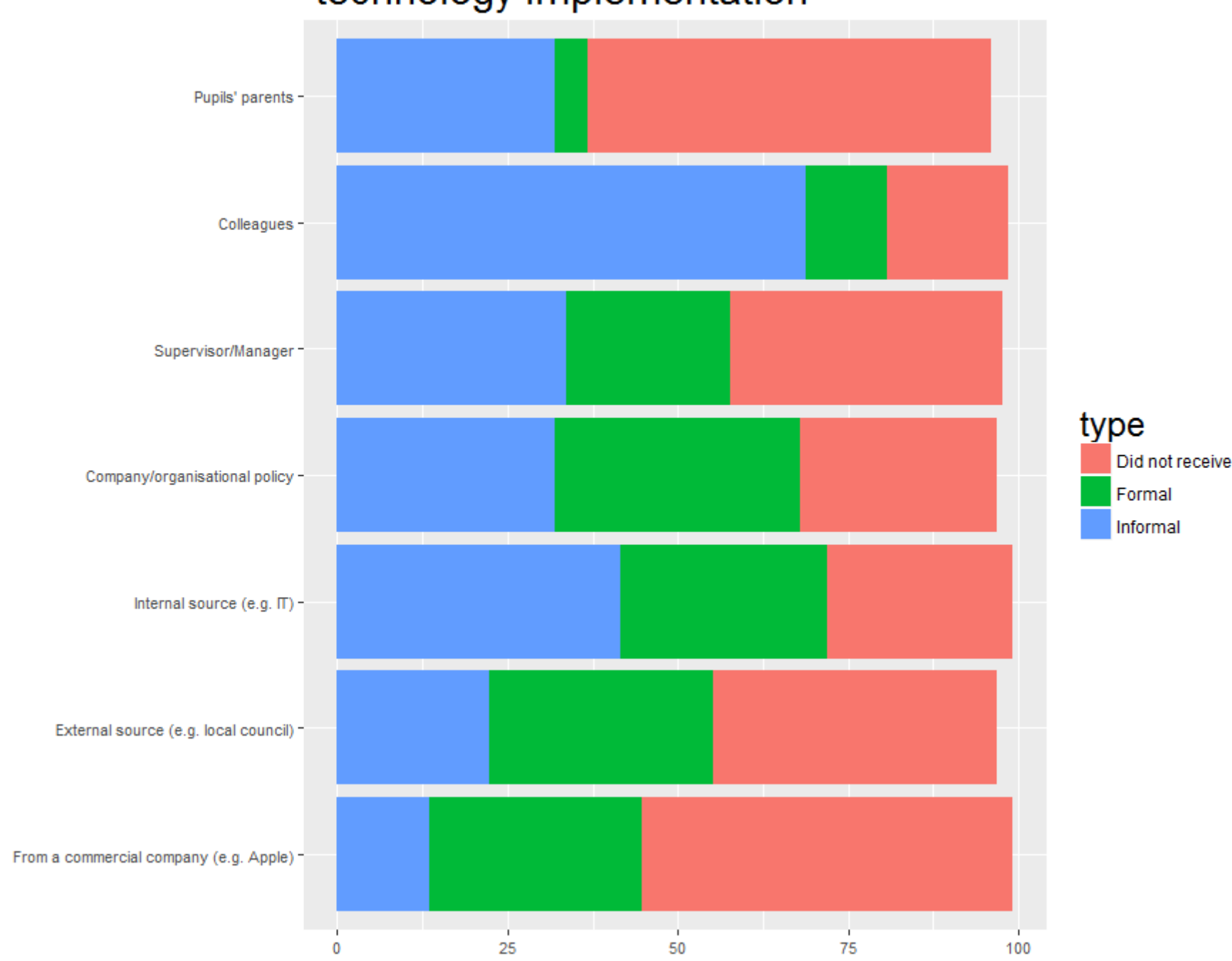
2. Impact of technology

85% of respondents reported that technology generally had a **positive impact** in the classroom.

3. Function of technology

The ranking of technology uses was largely **consistent** among respondents
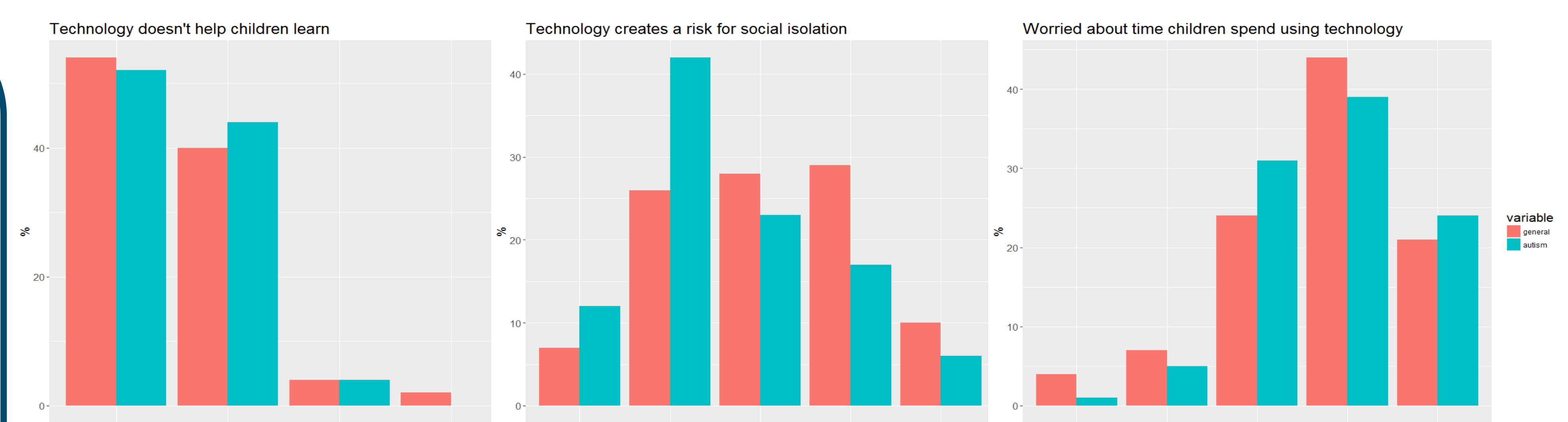
4. Attitudes to technology

Attitudes were very **similar** in both a general– and autism-specific context. This might be explained by most respondents having limited experience in non-SEN settings. Attitudes towards technology were not predicted by participant age, current job role, time spent working in similar roles, or pupils' intellectual ability.

Ranked functions of technology
1. Learning about a topic
2. Motivating students
3. Supporting communication
4. Learning a new skill
5. Speech generation device
6. Leisure activities
7. Sensory activities
8. Scaffolding an activity
9. Socialising with other pupils
10. Socialising with staff
11. Socialising with others

Conclusions

Technology is widely used to support autistic students. Whilst there are some concerns, there are also clear reported benefits to using technology. Staff would like more technology-related training in the workplace.

Technology doesn't help children learn

Technology creates a risk for social isolation

Worried about time children spend using technology

References
1. Fletcher-Watson, S. & Durkin, K. (2014). Uses of new technologies by young people with neurodevelopmental disorders. *Neurodevelopmental Disorders: Research Challenges and Solutions*, p243.
2. Kagohara *et al.* (2013). Using iPods and iPads in teaching programs for individuals with developmental disabilities: A systematic review. *Research in Developmental Disabilities*, 34, 147-156.
3. Knight, V., McKissick, B. & Saunders, A. (2013). A review of technology-based interventions to teach academic skills to students with autism spectrum disorder. *JADD, 43*(11), 2628-2648.
4. Clark, M., Austin, D. & Craike, M. (2015). Professional and parental attitudes towards iPad application use in autism spectrum disorder. *Focus on Autism and Other Developmental Disabilities, 30*(3), 174-181.