



STORYLINES

WRITTEN NARRATIVES IN AUTISM



Phone survey of narrative capabilities in children with autism

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1. Introduction¹

The survey reported on here is part of a larger, ARC funded project on autism and written narrative: the “StoryLincs” project (see <http://www.autismnarrative.unimelb.edu.au/>). This project will utilise detailed discourse analytic techniques to explore the abilities and deficits of children with autism with respect to the story-telling task. Discourse Analysis is a branch of linguistics that studies the structure and other linguistic characteristics of connected speech or written texts. The project will be surveying narrative capability in high-functioning children with autism, and typically developing children, attending mainstream primary schools in the middle and late primary years. The desired outcome is to gain a better understanding of characteristic language behaviours observed in children with autism with the long term goal of improving language and literacy interventions.

The phone survey reported here is a preliminary investigation to provide information for the design and implementation of the larger research project. The aim of the survey was to obtain a profile of the manner and extent to which high-functioning children with autism and Asperger Syndrome participate in the activity of story-telling in the context of drama, reading and creative writing; and, to gain a more precise understanding of their computer literacy.

2. Methodology

Ethics approval for this project was granted by the University of Melbourne (HREC Project No. 0603177) and Autism Victoria. Email contact was made with parents of all those children on the Autism Victoria Participant Register who met the criteria of: a diagnosis of Autism, Asperger Syndrome, Autism Spectrum Disorder or High Functioning Autism, high IQ, good verbal skills and aged between six and twelve years. There were 22 of these children. 14 families elected to take part in the study, the range of diagnoses of the children including: 3 children with ASD, 4 children with HFA, 2 children with Autism and 5 children with Asperger Syndrome. In each case one of the researchers contacted a parent by phone, and the parent completed a questionnaire over the phone which took about 30 minutes.

Two researchers together collated responses to the questions and calculated percentages for quantitative results (these are represented as raw figures, as percentages and graphically in the Results). For open-ended questions, we have provided a summary of the responses. The subject pool was not sufficiently large for statistical analysis.

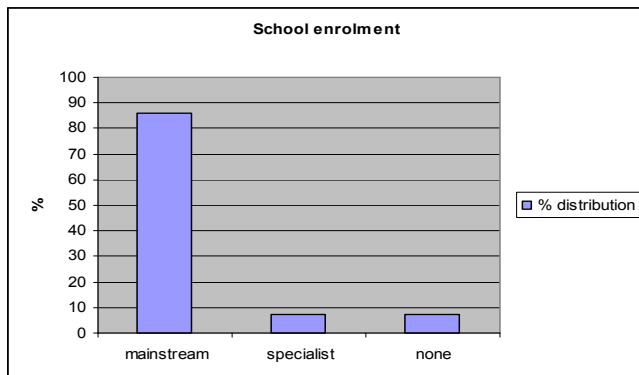
3. Results

General profile

We first present the general profile of the children with respect to their schooling, as shown in the following graphs.

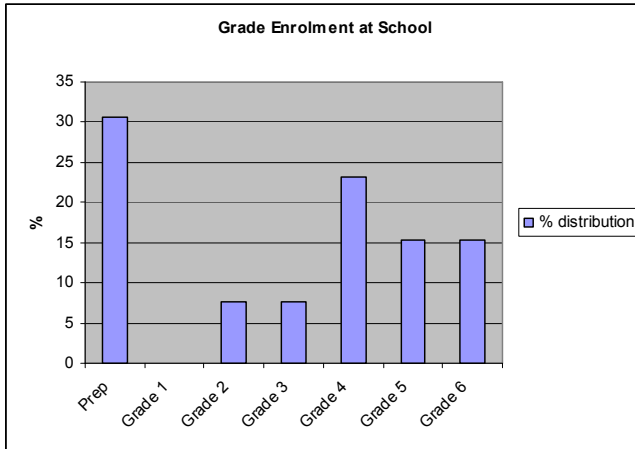
1. *What type of school does your child attend?*

a. mainstream **85.8%** (12) b. specialist **7.1%** (1) c. none **7.1%** (1)

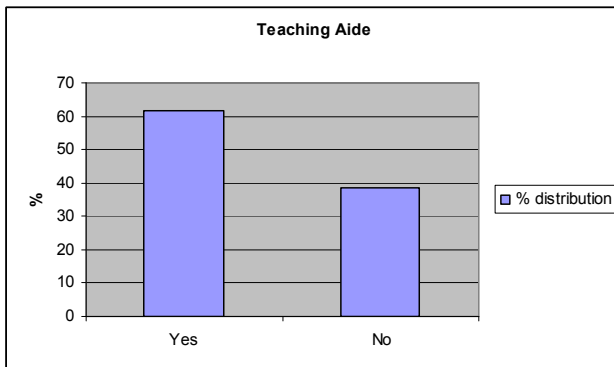


¹ We are very grateful to Autism Victoria for allowing us to publicise this project through their organization, and to the families on the Autism Victoria Research Participant Register who took part in the phone survey.

2. What grade are they enrolled in?
 a. Prep **30.8%** (4) b. Grade 1 (0) c. Grade 2 **7.7%** (1) d. Grade 3 **7.7%** (1)
 e. Grade 4 **23.1%** (3) f. Grade 5 **15.4%** (2) g. Grade 6 **15.4%** (2)



3. Do they have a teaching aide?
 a. yes **61.5%** (8) b. no **38.5%** (5)

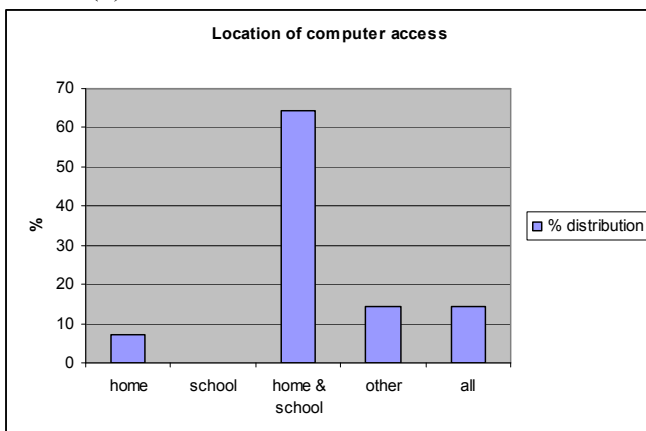


Engagement with story-telling

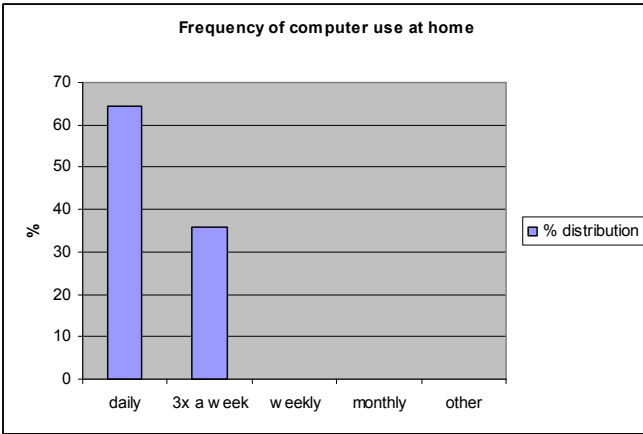
Results for other questions are presented in turn, under the four general headings of 'Computer Use', 'Reading', 'Storytelling' and 'Drama'.

Computer use:

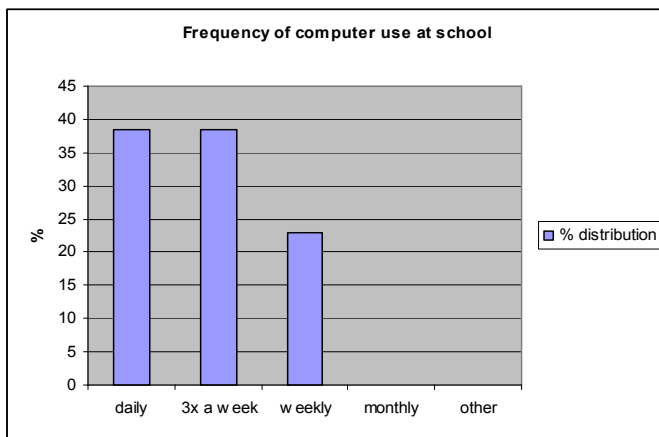
4. Does your child have access to a computer
 a. at home **7.1%** (1) b. at school (0) c. both **64.3%** (9) d. other **14.3%** (2) e. both & other ('all')
14.3% (2)



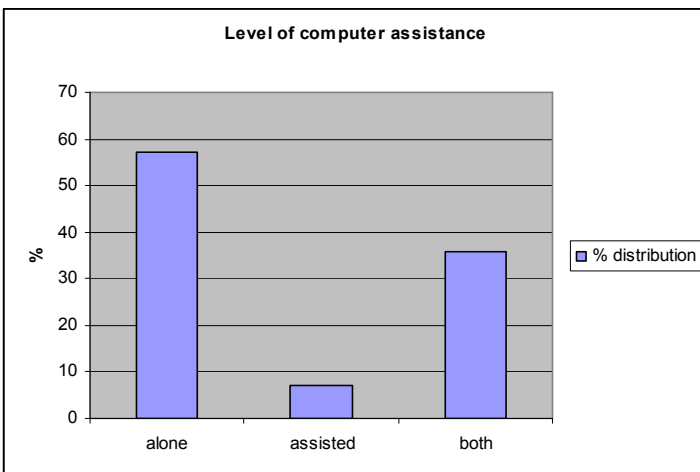
5. How often do they use the computer at home?
 a. daily **64.3%** (9) b. three times a week **35.7%** (5) c. weekly (0) d. monthly (0) e. other (0)



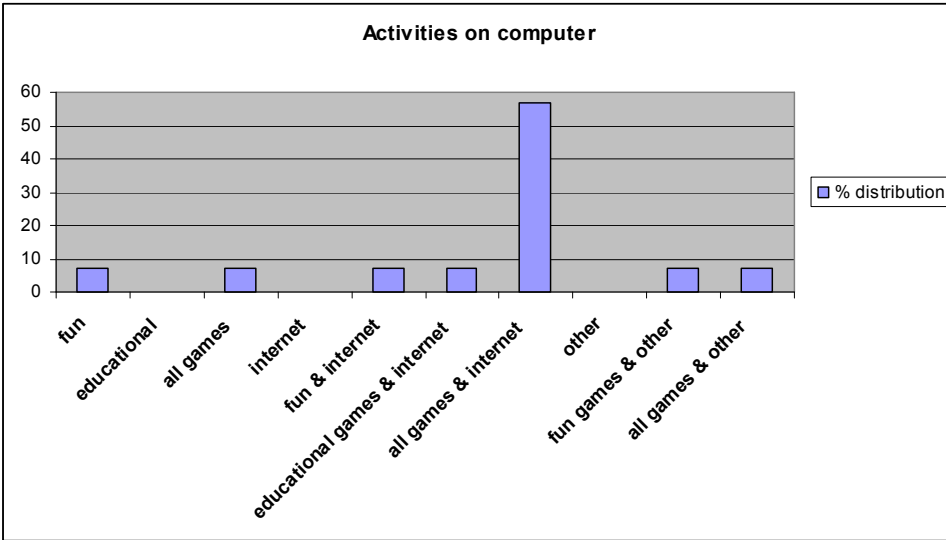
6. How often do they use the computer at school?
 a. daily **38.5%** (5) b. three times a week **38.5%** (5) c. weekly **23%** (3) d. monthly (0) e. other (0)



7. Do they typically work at the computer
 a. alone **57.2%** (8) b. with assistance **7.1%** (1) c. both **35.7%** (5)



8. *What kinds of activities do they do on the computer?*
 a. fun games **7.2%** (1) b. educational games (0) c. internet (0)
 d. other (0) e. fun & ed. games **7.2%** (1) f. all games & internet **57.1%** (8)
 g. ed.games & internet **7.2%** (1) h. fun games & other **7.1%** (1)
 i. fun games & internet **7.1%** (1) j. both games & other **7.1%** (1)

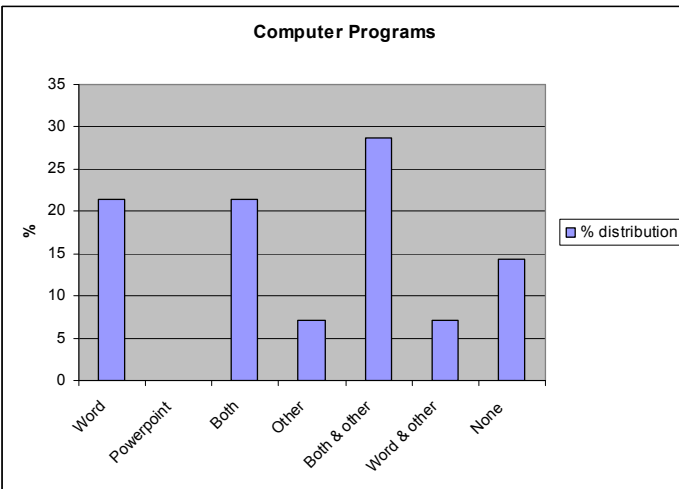


9. *What computer games do they like to play?*

The survey revealed that most of the children enjoy a wide variety of computer games. Younger children access games on websites such as *Blue's Clues* and the *Wiggles*, while older children enjoy *Star Wars* games and *Lego* games. Other game types include match-to-sample games and visuo-spatial games including drawing games. Games involving logic/problem solving as well as those involving strategy such as *Runescape* or *SIMS* were also nominated by parents as popular games for some of the older children.

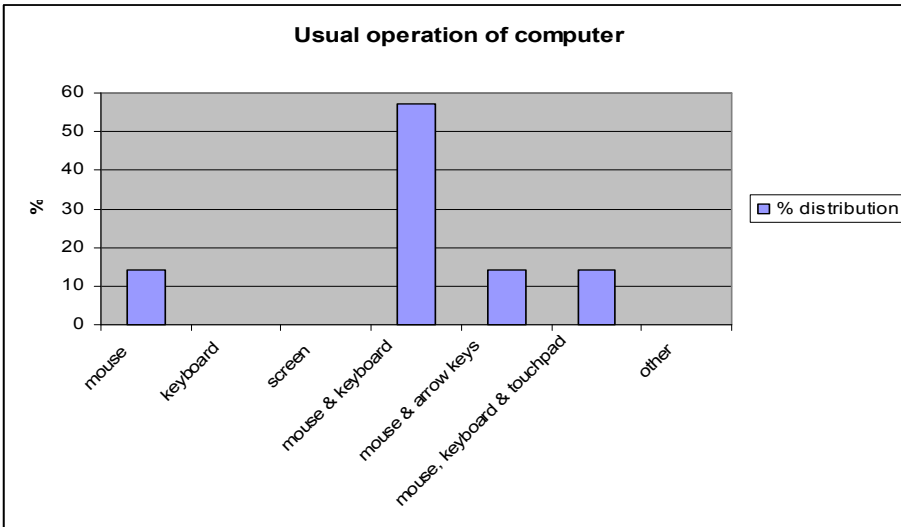
10. *What computer programs do they use?*

- a. word **21.4%** (3) b. powerpoint (0) c. word & powerpoint **21.4%** (3) d. other **7.1%** (1)
 e. word, powerpoint & other **28.7%** (4) f. word & other **7.1%** (1) g. none **14.3%** (2)



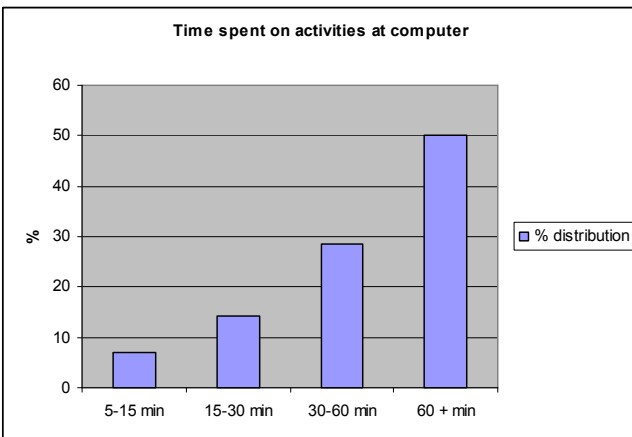
11. How do they operate the computer most often?

- a. the mouse only **14.3%** (2)
- b. the keyboard only (0)
- c. the screen (0)
- d. mouse & keyboard **57.1%** (8)
- e. mouse & arrow keys **14.3%** (2)
- f. mouse, keyboard & touchpad **14.3%** (2)
- g. other 0



12. How long do you think your child would comfortably focus on completing an activity at the computer?

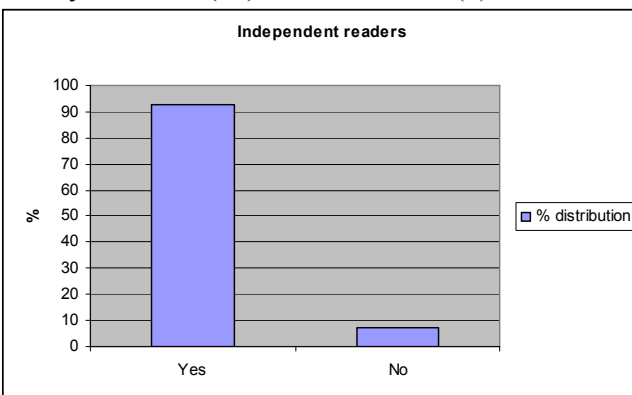
- a. 5-15 min **7.1%** (1)
- b. 15-30 min **14.3%** (2)
- c. 30-60 min **28.6%** (4)
- d. 60 min + **50%** (7)



Reading:

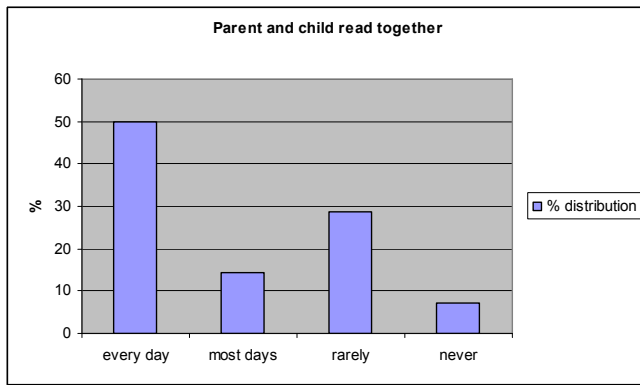
13. Does your child read independently?

- a. yes **92.9%** (13)
- b. no **7.1%** (1)



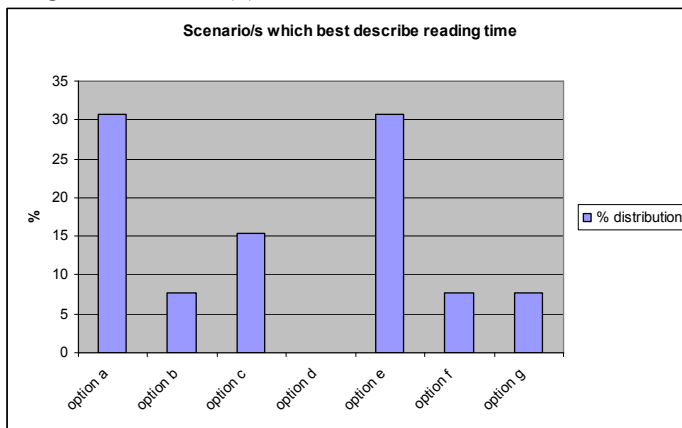
14. Do you and your child read together at home?

- a. every day **50%** (7) b. most days **14.3%** (2) c. rarely **28.6%** (4) d. never **7.1%** (1)



15. When you and your child read together, which scenario best describes this time:

- a. child reads story, parent offers help when needed **30.8%** (4)
 b. parent reads story, child actively participates **7.7%** (1)
 c. parent reads story, child listens passively **15.4%** (2)
 d. other (0)
 e. a & b **30.8%** (4)
 f. a & d **7.7%** (1)
 g. a & c **7.7%** (1)



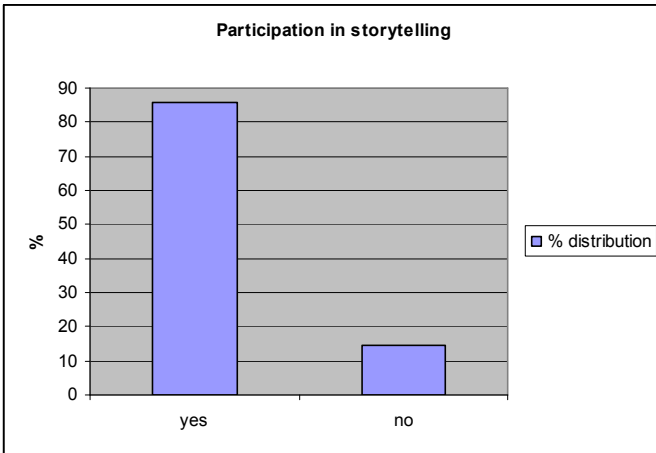
16. What books is your child reading at the moment?

The wide age range of children whose parents completed the survey is reflected in the types of books children were reported to be reading. The younger children were reading picture books such as *Dougal the Garbage Dump Bear* and *Wiggles* books, while the older children were reading the *Harry Potter* and *Lemony Snicket* series, and authors such as Anthony Horowitz, Andy Griffiths and Margaret Clark. Some children were reading only factual materials, and some only fiction, as well as children who read a combination. A number of the older children were avid readers, who had read authors such as Douglas Adams and J.R.R. Tolkien. Most parents reported that their children enjoyed reading.

Storytelling

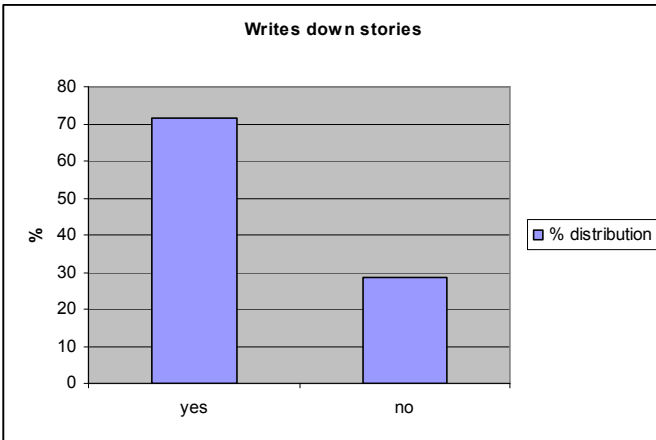
17. Does your child ever tell stories?

a. yes **85.7%** (12) b. no **14.3%** (2)



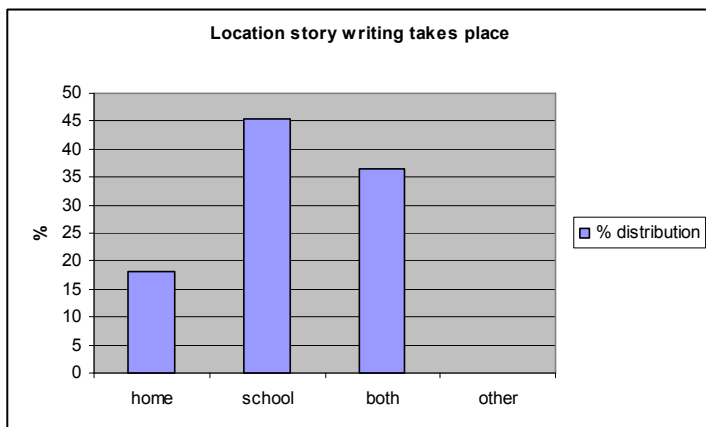
18. Does your child ever write stories down, or type them up?

a. yes **71.4%** (10) b. no **28.6%** (4)



19. Where do they do this?

a. at home **18.2%** (2) b. at school **45.5%** (5) c. both home and school **36.4%** (4) d. other (0)



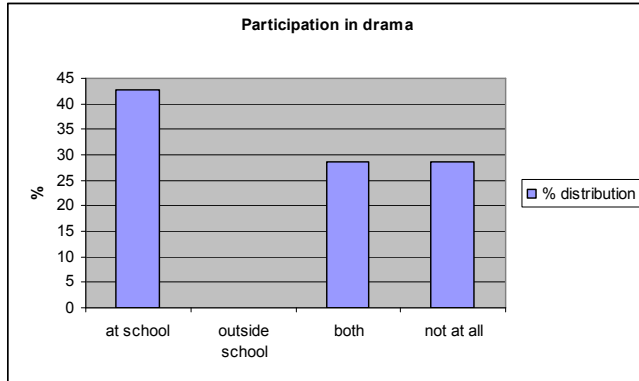
20. *Who is the target audience of these stories?*

Parents most frequently reported that the children who wrote stories either wrote for their own amusement, with no particular audience beyond themselves in mind, or for the teacher as part of a classroom task. Some children wrote stories for friends/other children, one child wrote scripts for plays, and two children wrote for their parents.

Drama

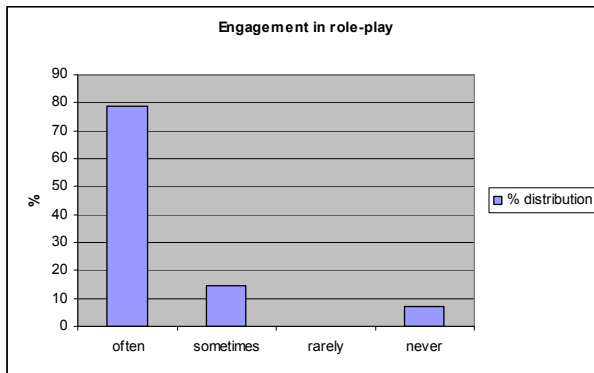
21. *Does your child participate in drama activities*

- a. at school **42.9%** (6) b. outside school (0) c. both **28.6%** (4) d. not at all **28.6%** (4)



22. *Do they ever informally engage in role play, such as re-enacting a scene from a favourite movie, tv show or tv commercial?*

- a. often **78.6%** (11) b. sometimes **14.3%** (2) c. rarely (0) d. never **7.1%** (1)



4. Summary

An overview of the key results is presented here. In regard to computer use, parents reported that children all have access to a computer in at least one setting, and almost two thirds of the children use a computer on a daily basis at home. Similarly, just over three quarters of the children use a computer at school at least three times a week, or more. Over half the children use the computer independently, and computer activities are diverse. Virtually all children use the Internet, and virtually all play computer games of some kind; the majority use Word and the next most used program was Powerpoint. For questions centred on reading, the survey revealed that almost all of the children read independently. Whether or not parents and children read together at home was age dependent and over half of the children who read with their parents either led the reading session, were active participants, or a combination of the two. On the topic of storytelling, many of the children produced stories of their own and over two thirds of these children wrote their stories down. Similarly, for drama activities, parents reported that many children participated in drama activities either at school, as an extracurricular activity, or both, and over two thirds of children engaged in role play. In summary, the children with autism and Asperger Syndrome whose parents were surveyed in this small study displayed strong computer literacy, were almost all independent readers, and a large percentage participated in storytelling and drama activities.