# Assistive technology in supporting the education of children with special educational needs: Key Findings from an NCSE commissioned study

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# The research questions

- What does research say about the most effective AT/equipment to support children with SEN?
- What does it say about training and support needs of users and practitioners?
- What evidence is available from best practice guidelines?
- What are the views of users, practitioners in the classroom and assessment professionals?
- What lessons can be identified from this evidence?
- What are the implications for the provision of AT/equipment?

# Five main lines of investigation

- An analysis of the policy context
- A review of the international literature
- A study of pupils using AT in schools
- A survey of teachers with experience of AT
- A study of the opinions of professionals in the AT process

# AT User Survey

- Sample features
  - 96 pupils using AT were interviewed, either alone, with others or by proxy
  - Representative sample:
  - School type - 1st and 2nd level schools, mainstream and special
  - 4 counties – Dublin, Galway, Kildare, Cork
  - 6 types of AT – Visual aids, Audio systems, Communication devices, Software, Control devices/accessories, Laptops and computers
  - Girls and boys
  - 6-19 years old

# AT User Survey

- Type of disability
  - Assessed syndrome
  - ASD
  - GLD (Moderate/Severe)
  - Emotional behavioural
  - Hearing impairment
  - Multiple disabilities
  - Physical
  - Specific learning disability
  - Speech and language
  - Visual impairment

# The Interview

- 3 part interview:
  - Perceptions of usage of AT by users or proxies on educational participation
    - Respondents were asked what educational challenges they had and whether the AT they had received helped meet those challenges
  - Parents perceptions of the AT implementation process
    - Parents were asked open ended questions about an 8 stage AT implementation process which aimed to identify strengths and weaknesses of the process
  - The Irish Matching Person to Technology instrument (users and proxies)
    - Users or proxies were asked questions to assess variable such as the motivation, self-esteem, capabilities, quality of life, usage of the technology the impact of the AT device and the technology preferences of the user

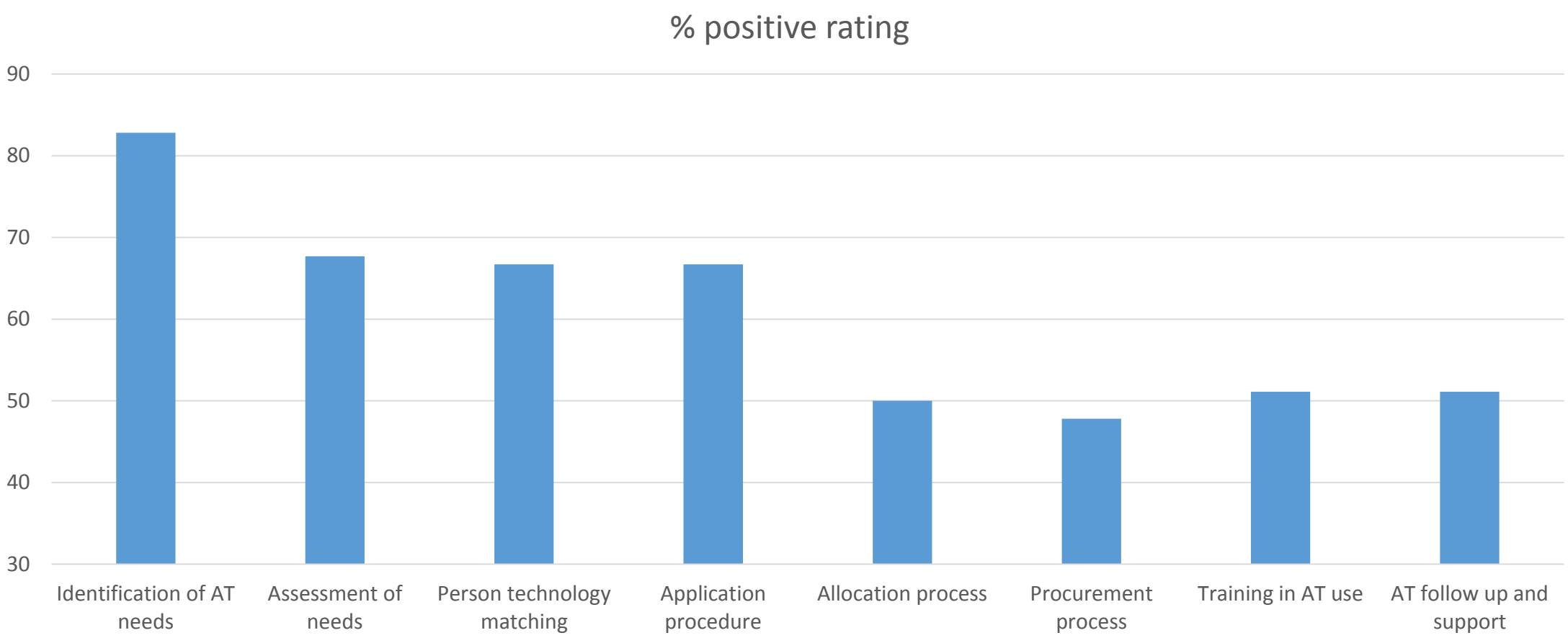
# Impact of AT on Educational Participation

| | No challenges | Respondents with Challenges | Respondents reporting positive impact of AT | |
|---|---|---|---|---|
| Impact on: | **Number** | **Number** | **Number** | **Percentage** |
| Curriculum Access | 12 | 84 | 68 | 81% |
| Subjective Wellbeing | 41 | 55 | 44 | 81% |
| Educational Engagement | 34 | 62 | 49 | 78% |
| Attainment | 19 | 77 | 54 | 70% |
| School Involvement | 69 | 27 | 14 | 52% |

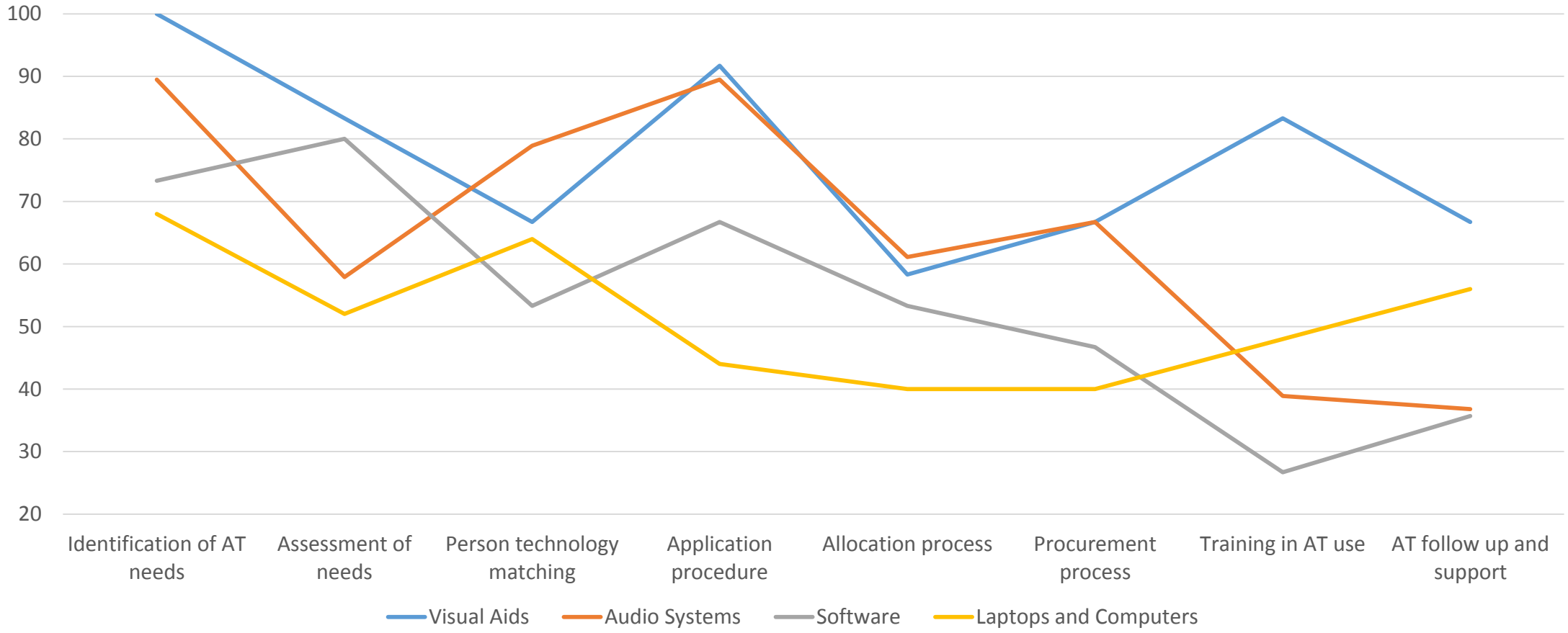
# Impact of AT on Educational Participation

- Positive impact did not differ in terms of the type of AT
- Positive impact was related to personal factors such as self-assessed capabilities and quality of life
- Users with lower self-assessed capabilities reported the AT to meet fewer of their challenges
- Users who had abandoned AT reported fewer positive impacts
- The abandonment rate was lower than international estimates
- Self-esteem and educational motivation differed by age but did not impact on educational participation
- Length of time users had AT was related to perceptions of the process but not to ratings of impact

# Positive rating of the AT process by parents



# Positive ratings of the AT process broken down by AT type



# Comments on the AT implementation process

- Despite the largely positive ratings, parents comments pointed to problems with various aspects of the process

# Issues raised by parents on the AT implementation process – areas for improvement

- Identification of potential AT needs
  - Schools could be slow to pick up that a child might have a SEN
  - Most often external services identify potential needs earlier than schools
  - Relying on parents alone for identifying potential needs is problematic
- Assessment of needs
  - Assessment was perceived to have taken place too late
  - The views of parents were not always taken into account
  - Transfer of AT between schools was very difficult
  - External services play a positive role
- Matching of needs to technology
  - No choice of AT offered
  - No trial period for trying out the AT
  - Some AT was inadequate for needs

# Issues raised by parents on the AT implementation process – areas for improvement

- The application process
  - Inefficiencies in the school
  - Delays in the process
- The allocation process
  - Poor communications
  - Delays in the process
- The procurement of the AT
  - Lack of a trial period
  - Delays in the process
  - Having separate awards for hardware and software

# Issues raised by parents on the AT implementation process – areas for improvement

- Training for stakeholders
  - Lack of training for parents, teachers and or pupils
- Support following installation of the AT
  - Lack of follow-up
  - Lack of maintenance programmes for much AT
  - Monitoring of progress of the user

# Teacher survey

- Sample
  - 46 respondents (not a representative survey)
  - Wide range of school types at first and second level
  - None from the ETB sector
- School profiles
  - About a third of schools had a formal school policy on AT
  - About 40% had assigned responsibility for AT to a specific staff member
  - The majority of schools monitored AT use
  - About half of the schools provided training and support to AT users
  - A third of schools organised staff training (principal, the AT supplier or external expert)
  - Three main approaches to AT

# Teachers study main findings

- Sources of knowledge - none predominated and low levels of satisfaction, many preferred face to face advice
- Teachers rated the earliest stages of the process most highly
- System strengths were VTs, positive attitudes of school principals  and SENOs
- Improvements needed e.g. more and better training, more AT, access to expertise, reduce administration
- Barriers e.g. negative attitudes of some teachers, trying to find the right equipment
- Impact of AT on educational participation - very positive except for overall school involvement
- Suggestions for colleagues - better communications, look at the pupils' needs as well as AT

# So – what works?

- It is not solely a function of AT.  It is:

*A robust process of delivering the right AT to the appropriate user in a supportive environment*

# Implications for Policy and Practice

- Universal Design for Learning (UDL)
- The implementation and funding of the current system
- A common and standardised approach to AT acquisition
- A proactive system to identify the potential to benefit from AT
- Assessment of needs and matching the person and technology
- Application, allocation and procurement
- Support and follow up
- Training and information