



Pupils with Intellectual Disabilities

Syndromes



Syndromes



Classroom-based tips (focus on instructional methods)

1. Assess your pupils' needs: The most useful part of writing for one pupil (e.g., making a grocery list) may not be a functional writing skill for another (e.g., writing the number of items packaged at work). Carefully assess each pupil's current routines to find those skills that the pupil requires most or could use often (Heward, 2013)

2. Teach your pupils functional skills in addition to academic skills (Browder *et al.*, 2006). Determine whether a particular knowledge area or skill is functional by seeking answers to questions such as:

- Will learning this knowledge/skill help the pupil to be more independent and successful in his home, school, or community?
- Will failure to learn this knowledge/skill have any negative consequences to the pupil?

The ultimate approach to determining if a given skill qualifies as functional curriculum is to contemplate this question from the pupil's perspective: "Will I need it when I'm 21?" (Heward, 2013).

3. Use visual cues to teach everyday skills to your pupils such as meal preparation (Heward, 2013).

4. Use simulations and other visual prompts to teach your pupils daily life skills. For example you can use your pupil's tablet to teach him/her about dressing, going to the grocery store, and other daily tasks (Mechling, Gast, & Langone, 2002).

5. Use pictorial self-instruction (Mithaug & Mithaug, 2003) to teach self-management skills. Pupils will learn to complete academic assignments using a picture-based graphic organiser planner. Pupils will plan, complete, and evaluate their work by circling pictures according to the following categories: (a) Subjects to Work, (b) What I Will Do, and (c) What I Did.

6. Use time delay in teaching picture and word recognition skills. The prompt is concurrently presented with the target stimulus and then faded with small increments of time over successive trial (Browder *et al.*, 2009).

Note: Individuals with Down Syndrome may require support for their academic success, but not display aberrant behaviours. Aberrant behaviour is defined as the irregular behaviour that deviates from what is considered normal (e.g. a person to behave in a violent way). Some of the pupils may require additional support in this regard comparing to others within the same category.



School-based practical tips (focus on instructional methods)

Announcement / Sign at School

Organise events/trainings at the local university for both teachers and pupils. (Ainscow, Booth & Dyson, 2004) with academics and departments who are specialised in the field. This will help teachers to learn about materials and practices in relation to cognitive skills and apply these with their pupils. Focus the training on specific areas of interest regarding these pupils. For instance, one part of the training can be on visuals to aid understanding (e.g., sign language, picture symbols), and extra work time (<http://www.learnalberta.ca/content/inmdict/html/>). Another area can focus on how time trials can be used with pupils with intellectual disabilities (<http://www.learnalberta.ca/content/inmdict/html/>).

Class Divisions / Arrangements

1. **Ask teachers to keep a progress log regarding the specific pupils.** If for instance a pupil has difficulties in reading/writing, ask teachers to keep a record of these difficulties. Arrange a meeting among teachers and the parent / guardian to discuss the pupil's progress and design activities and intervention to provide the support needed.

Note: Based on these data re-organise the school schedule (if needed) for allowing more time for co-teaching activities (Hoppey, & McLeskey, 2013)

2. **Work with specialists to arrange for any equipment or classroom modifications needed.** Due to short stature, the pupil may need a special desk and chair in order to sit and work more easily in class.
 - a. http://www.learnalberta.ca/content/inmdict/html/down_syndrome.html
3. **Make classroom arrangements so as to accommodate pupils' needs** in relation to hearing, vision or attention difficulties.

Be aware if the pupil requires a hearing aid or FM system.

- i. **Note:** FM Systems are wireless assistive hearing devices that enhance the use of *hearing aid(s)*, cochlear implants and also assist people who are hard of hearing

[Reference:

http://www.learnalberta.ca/content/inmdict/html/down_syndrome.html]

Community

1. **Meet with the pupil and parents early in the school year to discuss how the school can support this pupil's individual needs.** This could include finding out about:
 - the pupil's strengths, interests and areas of need
 - specific health concerns that may affect the pupil at school
 - successful strategies used at home or in the community that also could be used at school
2. **Establish an inclusive culture within your school:** organise workshops and seminars with academics and contact agencies that can offer training. This will help teachers to understand aspects of inclusion and raise awareness of Down syndrome and apply inclusive practices, which will contribute to enhancing pupils' social and academic skills (Hoppey, & McLeskey, 2013). Example of inclusive practice: Involve all pupils into the learning process and introduce differentiation strategies into your teaching. One differentiated approach is for all pupils to create a video – make sure the pupil is involved in the task along with his peers.
3. **Collaborate with the parents and pupil to consider if, and how, they would like to share specific information on Down Syndrome with peers.** If they wish to do so, consultation with health care providers, such as school or community health nurses, may be helpful (<http://www.learnalberta.ca/content/inmdict/html/>)

Curricular Adaptations

Establish an inclusive culture within your school: organise workshops and seminars with academics and contact agencies that can offer training. This will help teachers to understand aspects of inclusion and raise awareness of Down syndrome and apply inclusive practices, which will contribute to enhancing pupils' social and academic skills (Hoppey, & McLeskey, 2013).

Example of inclusive practice: Involve all pupils into the learning process and introduce differentiation strategies into your teaching. One differentiated approach is for all pupils to create a video – make sure the pupil is involved in the task along with his peers.

Educational Visits / Field Trips / Camps / School Exchanges / Trips Abroad

1. **At a school excursion, make sure that the pupils will be accompanied by a teaching assistant** – the teaching assistant will need to let the pupils know in advance about the schedule so as to be prepared in case of any changes to their routine.
2. **If required, work with the parents to carry out a risk assessment before field trips** to determine potential hazards, and to plan for the pupil's safe and successful participation.
http://www.learnalberta.ca/content/inmdict/html/down_syndrome.html

Other (Assessment)

Ask teachers to keep a progress log regarding the specific pupils. If for instance a pupil has difficulties in reading/writing, ask teachers to keep a record of these difficulties. Arrange a meeting among teachers and the parent / guardian to discuss the pupil's progress and design activities and intervention to provide the support needed.

Note: Based on these data re-organise the school schedule (if needed) for allowing more time for co-teaching activities (Hoppey, & McLeskey, 2013)

Other (Pupil Involvement)

Collaborate with the parents and pupil to consider if, and how, they would like to share specific information on Down Syndrome with peers. If they wish to do so, consultation with health care providers, such as school or community health nurses, may be helpful (<http://www.learnalberta.ca/content/inmdict/html/>)

Parents / Parents' Associations

- 1. Meet with the pupil and parents early in the school year to discuss how the school can support this pupil's individual needs.** This could include finding out about:
 - the pupil's strengths, interests and areas of need
 - specific health concerns that may affect the pupil at school
 - successful strategies used at home or in the community that also could be used at school.
- 2. Arrange weekly or fortnightly meetings between the parents and the staff to discuss the child's progress and to enhance the collaboration between home and school.** This will help to monitor progress and to discuss issues that might be related to the social life of the pupil, such as marginalisation, social interactions with peers, behavior at home, and self-esteem (McCaleb, 2013).
- 3. In collaboration with parents and healthcare professionals develop a written management plan that aligns with school and jurisdictional policies and protocols.** This plan should include specific information, such as:
 - medical concerns that may affect the pupil at school
 - the role of school staff in managing the medical concerns
 - steps for treatment of associated medical concerns
 - appropriate physical activities
 - when emergency measures should be taken.

[Reference: http://www.learnalberta.ca/content/inmdict/html/down_syndrome.html]

- 4. If required, work with the parents to carry out a risk assessment before field trips to determine potential hazards, and to plan for the pupil's safe and successful participation.** http://www.learnalberta.ca/content/inmdict/html/down_syndrome.html

Safety

In collaboration with parents and healthcare professionals develop a written management plan that aligns with school and jurisdictional policies and protocols. This plan should include specific information, such as:

- medical concerns that may affect the pupil at school
- the role of school staff in managing the medical concerns

- steps for treatment of associated medical concerns
- appropriate physical activities
- when emergency measures should be taken.

[Reference: http://www.learnalberta.ca/content/inmdict/html/down_syndrome.html]

School Breaks

Make same spaces in the school easily accessible so that certain pupils with particular needs, for example to follow a specific routine for lunch, can be accommodated. Often if a routine is not followed this may have an influence on the child's mood and behavior. Ensure there is appropriate supervision at these times.

School Celebrations / Events / Activities

Take steps to ensure the pupil does not feel left out during recess, intramural or other school activities. If the pupil has physical limitations, provide the pupil with:

- an alternative role, such as equipment manager or coach during intramurals
- alternative activities during recess, such as a friendship bench to sit on and meet with peers.

[Reference: http://www.learnalberta.ca/content/inmdict/html/down_syndrome.html]

School Purchases

1. **Equip the school with tablets and personal computers** so teachers and pupils can use technology to motivate pupils with Down Syndrome and develop their confidence. Most pupils are confident in using everyday technology (mobiles, tablets) so this approach will enhance their motivation.
2. **Provide ICT training to teachers, so teachers can use the technology with these pupils.** Teachers must be in a position to use ICT before using it to teach their pupils (Jung, 2005) Explore who can be responsible for training the teachers on specific topics and strategies such as software and applications that can assist in helping pupils' engagement and nurture their social skills. Some examples of useful software tools are the following: Clicker5 and Widgit Software.
3. **Equip classrooms with resources and materials that correspond to individual pupils' needs**, such as visual schedules, relaxation music, a radio, sand writing and soft balls.
4. **Make classroom arrangements so as to accommodate pupils' needs** in relation to hearing, vision or attention difficulties. Be aware if the pupil requires a hearing aid or FM system.
Note: FM Systems are wireless assistive hearing devices that enhance the use of *hearing aid(s)*, cochlear implants and also assist people who are hard of hearing.

[Reference:

http://www.learnalberta.ca/content/inmdict/html/down_syndrome.html]

Pupil Support

1. **At a school excursion, make sure that the pupils will be accompanied by a teaching assistant** – the teaching assistant will need to let the pupils know in advance about the schedule so as to be prepared in case of any changes to their routine.
2. **Provide additional support in the class**, for example with the presence of a teaching assistant.

Teacher Professional Development

1. **Establish an inclusive culture within your school:** organise workshops and seminars with academics and contact agencies that can offer training. This will help teachers to understand aspects of inclusion and raise awareness of Down syndrome and apply inclusive practices, which will contribute to enhancing pupils' social and academic skills (Hoppey, & McLeskey, 2013). *Example of inclusive practice:* Involve all pupils into the learning process and introduce differentiation strategies into your teaching. One differentiated approach is for all pupils to create a video – make sure the pupil is involved in the task along with his peers.
2. **Organise events/trainings at the local university for both teachers and pupils.** (Ainscow, Booth & Dyson, 2004) with academics and departments who are specialised in the field. This will help teachers to learn about materials and practices in relation to cognitive skills and apply these with their pupils. Focus the training on specific areas of interest regarding these pupils. For instance, one part of the training can be on visuals to aid understanding (e.g., sign language, picture symbols), and extra work time (<http://www.learnalberta.ca/content/inmdict/html/>). Another area can focus on how time trials can be used with pupils with intellectual disabilities (<http://www.learnalberta.ca/content/inmdict/html/>).

Technology

Equip the school with tablets and personal computers so teachers and pupils can use technology to motivate pupils with Down Syndrome and develop their confidence. Most pupils are confident in using everyday technology (mobiles, tablets) so this approach will enhance their motivation.

Supportive Literature

Definition: The term *syndrome* refers to a number of symptoms or characteristics that occur together and provide the defining features of a given disease or condition. **Down Syndrome** and **fragile X syndrome** are the two most common genetic causes of intellectual disabilities (Roberts et al., 2005).

Down Syndrome: Caused by chromosomal abnormality; most common of three major types is trisomy 21, in which the 21st set of chromosomes is a triplet rather than a pair. Most often results in moderate level of intellectual disability, although some individuals function in mild or severe range. Affects about 1 in 691 live births; incidence of Down Syndrome increases with age of mother to approximately 1 in 30 for women at age 45.

Characteristics of Down Syndrome: Best-known and well-researched biological condition associated with intellectual disability; estimated to account for 5%–6% of all cases. Characteristic physical features: short stature; flat, broad face with small ears and nose; upward slanting eyes; small mouth with short roof, protruding tongue may cause articulation problems; hypotonia (floppy muscles); heart defects common; susceptibility to ear and respiratory infections. Older people are at high risk for Alzheimer's disease.

Source: Heward, W. L. (2013). *Exceptional children: An introduction to special education*. Pearson College Div

Websites & EU Reports

www.downs-syndrome.org.uk

www.nads.org/

www.edsa.eu/

<https://aaid.org>

www.aamr.org

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