15. ICT to support students with additional support needs and disabilities in education

1: Welcome to the Inclusive Education Law course.
In this tutorial, we will focus on ICT to support **students with additional support needs and disabilities in education.**

2: This module deals with the use of ICT to support students with additional support needs in education.
It consists of three chapters:
- How can teachers select ICT to maximise benefits for students with additional support needs and disabilities?
- How to find, evaluate, and integrate ICT to best support students with additional support needs and disabilities to learn in their classroom in mainstream schools.
- What does the research say about technology to support students with additional support needs and disabilities?

3:
Technology developers create new products such as apps, software, and devices, to support students with additional support needs and disabilities.

4: Technology developers create new products such as apps, software, and devices, to support students with additional support needs and disabilities.

However 'using technology for the sake of using technology, without careful consideration of the match between the end user's individualised needs and the functionality of the technology is an all too common mistake' (Kennedy and Boyle (2017, p. 607).

5: Online teaching materials should be accessible to all learners in order to offer equal opportunities.

6: And teachers must be able to choose the best teaching resources that meet their student needs.

7:
Having in mind all these challenges, what are the qualities that a teacher should consider when selecting ICT to use with the students with ASN in their classes? How can teachers select ICT to maximise benefits for students with additional support needs and disabilities?

8:
When selecting ICT for students with ASN, it is essential to ensure that it is (according to Ahmad, 2015, p. 67):
suitable for the intended users and their environment

9: inexpensive and easy to purchase

10: and easy to use

11:

In order to take full advantage of ICT as a set of tools for supporting students with ASN, teachers should be guided on how to make informed, effective choices. In the hope of offering this type of guidance, existing literature offers a wide range of models and frameworks designed to help teachers find, evaluate, and integrate technology. Their important common principles include:
Fit the students' needs, teachers' capabilities, and expected learning outcomes

12:
Examine the choices available, then carefully decide what ICT to use

13:
Create opportunities to integrate technology with other non-technological activities

14:
Take responsibility for the implementation of ICT in the classroom, then monitor its true impact on student learning

15:
How can teachers find and evaluate ICT in order to maximise benefits for students with additional support needs and disabilities to learn in their classroom?

16:
Although the tutorial further refers to apps, it could be easily applied to devices and other types of software.
Teacher should find apps relevant to their target area, such as supporting students with disabilities, using iTunes, Google Play, or Top 10 lists education apps

17:
Teachers should evaluate the app, using a tool to determine the potential appropriateness in supporting students with additional support needs and disabilities

18:
Teachers should use the app themselves and check quality and relevance to the students' educational needs and goals, as well as their own pedagogical approach.

19:
How can teachers best find and evaluate ICT in order to maximise benefits for students with additional support needs and disabilities?
Teachers:
- evaluate the app from a curricular perspective (does it properly teach and reinforce the academic concepts and standards they want their students to learn in line with)

20:
- evaluate whether students will be able to navigate the features of the app independently

21:
- investigate the interface of the app

22:
- reflect on the motor skills required to interact with the app

23:
- consider the progress monitoring capacity of the app

24:
and reflect honestly on how their students would feel about the app, software, or device.

25:
What does the research say about technology to support students with additional support needs and disabilities?

26:
According to UNESCO's report on technology for inclusion of 2020

27:
technology supports different thinking styles and perceptual processes. ,Computers with specialised software can be used to record, edit, and share ideas and facilitate the completion of assignments on time'.

28:
It also improves various academic skills such as reading, writing, and literacy. ,Improving the quality and/or quantity of students' writing can be done via the use of tools such as multimedia, concept mapping/organising software, and dictation'.

29:
What does research says about the use of technology to support students with ASN?
Using ICT with students who have ASN brings many benefits, including:
making learning more fun and attractive than traditional approaches (Maza (2021) many technological devices are outfitted with vibrant colours and engaging designs that can fuel a student's empowerment for learning)

30:
increasing students' autonomy and counteracting challenges particular to students' personal ASN (Robb (2018) ,the use of iPads and other touchscreen devices can increase access to learning for students with fine-motor challenges'

31:
individualising students' learning (Robb (2018) ,it's beneficial for teachers to understand how apps can be personalised to meet the child's individual needs')

32:
reducing the amount of cognitive processing required for learning (via offering additional time and alternative, digital spaces for learning)

33:
facilitating a creative, cooperative, and inclusive learning environment (Burke & Hughes (2018) ,one key benefit of using tablet devices, such as iPads, is that they are generally seens as everyday items, therefore do not carry any stigma for any student who might be offered one to use')

34:
enhancing motivation towards and engagement in learning

35:
improving vocational, independence, and social skills (for example, giving students tools for alternative modes of communication, other than speaking and writing)

36:
What does research say about challenges and concerns teachers experience when integrating technology in their classroom.
Technology challenges include:
high costs of devices and software

37:
insufficient technical knowledge and skills on the part of teachers

38:
logistics issues (e.g. purchase and distribution)

39:
rapid pace of devices and software becoming obsolete

40:
lack of concrete connections to local or national curricula, or to the specific learning challenges individual students face

41:
increasing physical and academic inclusion but potentially at the expense of social inclusion

42:
safety and security (e.g. the creation of accounts using personal, traceable details)

43:
the lengthy, challenging process of attempting to select the best device/software option

44:
potentially disruptive qualities (because devices have so many functions and apps, they provide plenty of opportunities for distraction when bored)

45:
In summary:
ICT can support students with additional support needs and disabilities in education. How the students feel about software and devices, is the single most vital deciding factor in choosing ICT for students with additional support needs and disabilities.