

Course Module

RAISING THE ACHIEVEMENT OF ALL LEARNERS

Module characteristics

60 min duration in total

- Theory input (slide presentation): 45 min
- Discussion 15 min

Media

- PowerPoint presentation
- Handout: the 5 pillars + strengths of ICT use

INTRODUCTION

Inclusion

- ‘Inclusion’ is used and understood in a variety of ways and contexts. Four different understandings of inclusive education can be observed:
 1. Inclusion as the placement of learners with disabilities in mainstream classrooms
 2. Inclusion as meeting the social/academic needs of learners with disabilities
 3. **Inclusion as meeting the social/academic needs of all learners**
 4. Inclusion as the creation of communities.

(Göransson & Nilholm 2014)



But:

- **How to implement this particular ‚flavour‘ of inclusive education?**
- **What role can ICT play to facilitate raising achievement of all learners?**

Contents of this module are mainly based upon the results of the project „Raising the Achievement for all learners in inclusive education“, run by the European Agency for Special Needs and Inclusive Education, Odense Denmark ([European Agency 2016](#))

RAISING ACHIEVEMENT OF ALL LEARNERS

Some pillars of Raising Achievement of all learners in Inclusive Education

Raising Achievement for all learners



School improvement

- School improvement is viewed as a distinct approach to educational change, which focuses on raising the achievement of all learners (student outcomes) and strengthening schools' capacity to cope with change.
- Despite the significant number of past attempts to reform whole systems, **a theory of system change in education** that results in an increase in student learning and achievement over time **is still under debate.**



School capacity

- Learner achievement is affected most directly by the quality of instruction which is influenced by 5 key dimensions of school capacity
 1. The **knowledge, skills and dispositions of individual teachers** (professional competences in curriculum, pedagogy, assessment and classroom management, and high expectations for student learning)
 2. The **school's professional community**
 3. **Programme coherence** (the extent to which learner and faculty programmes in a school are co-ordinated, directed at clear learning goals and sustained over time)
 4. **Technical resources** (high-quality curricula, books and other instructional materials, laboratory equipment, computers and adequate workspace)
 5. **Effective principal leadership.**
- **School climate** is directly related to academic achievement, and this is true for all levels of schooling (Thapa et al., 2013).



Curriculum development

- Conventional academic and behavioural outcomes that were considered essential for effective schools are now out-dated
- As the Draft 2015 Joint Report of the Council and the Commission notes: ... *basic competences must go hand in hand with other key competences and attitudes: **creativity, entrepreneurship and sense of initiative, digital skills** (including coding), **foreign language competences, critical thinking** including through e-literacy and media literacy, and **skills reflecting growing sectors**, such as the green economy*
- Schools are now expected to develop **critical skills**: social skills; communication; and higher-order thinking skills (including problem solving, critical thinking, and decision-making); supported by the intrapersonal skills of self-control and positive self-concept



Curriculum development (continued)

- Need for flexible curriculum development which is tailored to each learner's specific needs and supports the inclusion of all learners
- As PISA 2009 found: '
 - *'In countries where schools have greater autonomy over what is taught and how students are assessed, students tend to perform better'*



(OECD, 2010a)

School leadership

- Literature on inclusive education underlines **leadership's crucial role** in fostering **innovation** and promoting inclusive **change**
- Increasing research evidence shows that leadership practices are both **directly and indirectly connected** with learners' outcome



School leadership (continued)

- A synthesis of international research on head teachers who influence school results concluded that **instructional leadership has a major impact on learner achievement**, since it focuses on the quality of teachers' instructions/teaching. Five dimensions of instructional leadership were identified. Leaders:
 - formulate goals and show high expectations of teachers;
 - allocate resources related to pedagogical purposes;
 - plan, co-ordinate and evaluate teaching/instruction and the curriculum/plans;
 - actively support and participate in teachers' learning and development;
 - ensure a supportive, well-ordered environment.



Quality teaching for all

- The perspectives of achievement may be divided into two main kinds.
 - The first type derives from a '**school effectiveness perspective**' and measures quality as learner performance and achievement on standardised national or international tests.
 - The other type, deriving from the '**school development perspective**', defines quality when learners also develop:
 - Sustainable knowledge
 - Knowledge used for a deeper understanding of the world
 - Knowledge that gives consequences for actions
 - A willingness and desire to continue learning
 - Critical thinking, collaborative skills, creativity, independence and problem solving ability
 - A democratic attitude of mind.



Quality teaching for all (continued)

- ‘General frame of reference’ for the development of quality teaching:
 1. A **collective dimension**: teachers and learners handle the learning tasks together.
 2. A **mutual dimension**: teachers and learners interact and listen to each other, share ideas and consider different views and opinions.
 3. A **supportive dimension**: the learners express ideas in a free sphere, without being afraid to give the ‘wrong answer’ or say that they do not understand, helping each other to reach a common understanding.
 4. A **goal-oriented dimension**: teachers plan, direct and steer classroom communication according to certain pedagogical goals.
 5. A **cumulative dimension**: teachers and learners build on their own and each other’s ideas and link them together into coherent lines of thought and learning.



Quality teaching for all (continued)

- It is fundamental for teachers to:
 - have **faith and trust the learners' ability** to learn, not just by thought, but primarily through their actions and being;
 - have the **capability to lead/guide the learning process** by creating functioning relations with learners within a varied repertoire of teaching;
 - **translate and adopt their subject knowledge** to specific situations and contexts;
 - **use well-structured qualitative goals and challenging tasks and projects**, just ahead of the learners' current understanding



(Håkansson & Sundberg, 2012)

Quality teaching for all (continued)

- Good quality teaching will likely involve six common components suggested by research, a combination of which are manifested at different times:
 1. **(Pedagogical) content knowledge**
(strong evidence of impact on learner outcomes)
 2. **Quality of instruction**
(strong evidence of impact on learner outcomes)
 3. **Classroom climate**
(moderate evidence of impact on learner outcomes)
 4. **Classroom management**
(moderate evidence of impact on learner outcomes)
 5. **Teacher beliefs**
(some evidence of impact on learner outcomes)
 6. **Professional behaviours**
(some evidence of impact on learner outcomes)



Teaching and learning strategies for diversity

- Recently, educational research is focusing more on pedagogical approaches that go beyond the teacher-led practices of ‘differentiation’ or ‘individualisation’ towards more **learner-centred, personalised classroom practice**.
- Personalised learning is an on-going process which enables ‘deep learning’ and sets high expectations of progress, participation and success for all learners equally, including those who have been identified as having SEN



Teaching and learning strategies for diversity (continued)

- The following teaching approaches were identified as the most effective for raising achievement:
 - **Structured instruction/teaching:** sequences with clear goals, identifying critical aspects of the subject in focus, mentoring, follow-up on the learners' understanding, summaries, synthesis and repetition.
 - **Meta-cognitive strategies:** the methods of studying, learning, building on the principles of organising an assignment for self-learning, self-evaluation, support from a partner, repetition and memorising, formulating goals and planning of future learning.
 - **Formative feedback:** clarifying, sharing and understanding the goals and the expectations together (teacher-learner), creating situations which trigger 'evidence' of learning, what is learnt, feedback so that the learners 'move ahead' and making the learners become resources for each other.
 - **Peer learning:** small group interaction
 - **Peer assessment.**

(Hattie, 2009)



Teaching and learning strategies for diversity (continued)

- Researchers systematically compiled and analysed 38 meta-analyses of **five different methods/teaching interventions**, in the content areas of reading, writing and mathematics:
 1. Peer tutoring
 2. Co-operative learning
 3. Direct instruction
 4. Metacognitive strategies
 5. Individual learning.
- The results revealed that **peer tutoring, direct instruction and metacognitive strategies** have the greatest effects on goal achievement among learners in need of special support



Assessment strategies

- It is now widely recognised that **formative assessment** and **feedback** are the best way to promote achievement
- Formative assessment – also referred to as **assessment for learning** – can involve learners, enabling them to take a more active part in their learning. It is usually carried out in collaboration with others and can have substantial positive impacts on learner achievement.
- Formative assessment puts the learner at the centre of the assessment process and provides the basis for personalisation according to the learner's interests and aptitudes.
- **Inclusive assessment** shifts the focus from assessment procedures that focus on diagnosis and resource allocation, often conducted outside the mainstream school, to **on-going assessment** that is conducted by class teachers to **organise individual educational planning**.



Increasing learner capacity

- **Learning capacity** is affected by
 - external forces (curriculum, assessment, organisation of learning, learning relationships) as well as
 - internal forces (intellectual, affective and social).
- Teachers should therefore be empowered to increase learner capacity through a sophisticated understanding of these factors.
- In practice, this might include extending freedom to learn and building a creative consensus on transformative pedagogy, curriculum, assessment and relationships (Swann, Peacock, and Drummond, 2012).



Increasing learner capacity (continued)

- More **specific influences** related to learning and achievement have been identified in Hattie's meta-study (2009). These include:
 - the quality and quantity of instruction,
 - disposition,
 - class environment,
 - level of challenge,
 - peer tutoring,
 - parental involvement,
 - cognitive ability and
 - home factors.
 - Finally, feedback is featured as one of the most critical influences on student learning (Hattie, 2009; Hattie and Timperley, 2007).



Increasing learner capacity (continued)

- The **type of feedback** and the way it is given can be differentially effective. Four levels of feedback:
 1. about the task,
 2. about the processing of the task,
 3. about self-regulation, and
 4. about the self as a person.
- **Circumstances** that make feedback effective:
 - timing of feedback and
 - effects of positive and negative feedback.
- Feedback has to be **combined with effective instruction**, by also noting that ‘teachers need to seek and learn from feedback (such as from students’ responses to tests) as much as do students’ (Hattie and Timperley, 2007, p. 104).



Increasing learner capacity (continued)

- Research has also identified a series of effects on achievement related to **learner grouping**.
 - The INCLUD-ED project (2006–2011) compared different types of learner grouping (mixture, streaming and inclusion) and found that **co-existence** in heterogeneous inclusion classrooms where co-operative and dialogic learning take place can **improve academic achievement** (Flecha, 2015).
 - **Ability grouping** or different kinds of organisational differentiation does not provide the benefits that teachers intuitively imagine (INCLUD-ED, 2012; Persson, 2012), but rather **increase the differences between learners** (Dubois-Shaik and Dupriez, 2013).



Personalised learning

- Growing consensus that helping pupils to **become independent reflective learners, involved in their own learning**, is the most effective way of increasing attainment (Hattie, 2009).
- Recently, educational research is focusing more on pedagogical approaches that go **beyond the teacher-led practices** of 'differentiation' or 'individualisation' towards more **learner-centred, personalised classroom practice** (Sebba, 2010).



Personalised learning (continued)

- **Differentiation** and **individualisation** involves the teacher providing instruction and accommodating learning needs to a group of learners, or individual learners, respectively.
- On the contrary, **personalisation** involves the learners driving their own learning, being responsible for connecting learning with their own interests and actively participating in the design of their own learning (Bray and McClaskey, 2014).
- Hargreaves (2004) has set the general context and outlined the **gateways of personalising teaching and learning**:
 - Learning to learn and the new technologies
 - Curriculum and advice/guidance
 - Workforce development and mentoring/coaching
 - Organisation and design of the school and leadership from teachers and leaders of all levels.



Personalised learning (continued)

- An investigation by Brown et al. (2007) shows that the schools which were developing **strong and cohesive personalised learning** used the following approaches:
 - aspects of assessment for learning in particular;
 - learners taking more responsibility for their own learning;
 - ‘genuine’ learner voice;
 - strong links with the community; and
 - curricular flexibility.



Learner voice and participation

- Imperative of listening to learner voices has received much attention in the field of school improvement.
- However, most learner voice activities currently in schools consist of less-intensive involvement, in the forms of expression, consultation, and some participation (Toshalis and Nakkula, 2012).
- Although some schools consider they are listening to the voices of children and young people, in many cases, they are actually doing so in a tokenistic way (Robinson and Taylor, 2007).



Learner voice and participation (continued)

- Robinson and Taylor (2007) outline four **underpinning values of learner voice work**, each potentially significant in enabling school improvement through enhancing social justice:
 1. *A conception of communication as dialogue.*
 2. *The requirement for participation and democratic inclusivity.*
 3. *The recognition that power relations are unequal and problematic.*
 4. *The possibility for change and transformation (p. 8).*
- Learners have a right to express their views on how well their needs are being met as well as a clear entitlement to influence the services that affect them (Welsh Assembly Government, 2007).
- Feedback from pupils adds to the school's development plan and enables learners to become more involved and engaged in their learning experience (Welsh Assembly Government, 2007, p. 3).



Collaborative learning

- Traditional individualistic conceptions of learning have been increasingly challenged, and attention has focused more on **community-centred approaches to learning**
- This trend in human learning and cognition emphasises **participation, joint meaning-making, discourse and dialogue** and is characterised by **collaboration, creative processes** and the **use of new technology**



Collaborative learning (continued)

- Collaborative learning has become popular in educational research as a result of major theoretical-methodological shifts:
 - From teacher-centred towards more **learner-centred approaches**
 - From individually-oriented towards **socially-oriented** notions of constructive processes
 - From laboratory studies towards investigations of learning processes taking place in **schools** and **classrooms** as well as in **real-world contexts**.



ICT TO RAISE ACHIEVEMENTS OF ALL LEARNERS

Use of ICT

- A considerable amount of research has suggested the use of digital tools and resources as powerful tools in teaching and inclusion
- Digital tools and resources enable the:
 1. **discovery** and **mastery** of **new** content knowledge;
 2. **collaborative, connected** learning;
 3. **low-cost creation** and **iteration** of new knowledge;
 4. use of new knowledge with **authentic audiences** for **‘real’ purposes**; and
 5. enhancement of teachers’ ability to **put students in control of the learning process**, accelerating learner autonomy

(Fullan & Langworthy, 2014)

Use of ICT (continued)

- Concerns have been raised about its effects on thinking and learning
- Previous research findings suggest that technology use has a **below-average impact on learning relative to other interventions.**
- Possible reason:
 - teachers are failing to find effective ways to use technology to support learning, due to
 - lack of a knowledge base (pedagogical practices involving technology),
 - inadequate teacher training and
 - lack of incentives (OECD, 2010b)
- There is a need to **focus on the pedagogy of applying technology**



Use of ICT (continued)

- Furthermore, UNESCO IITE suggests ways through which digital technology can be used in schools to promote **personalised learning**. Using ICT
 - for **assessment** of learning
 - for **personalised instruction**, by selectively delivering digital content
 - to **personalise the curriculum**, by designing and presenting learning material that each learner needs in the classroom
 - to **change classroom organisation**, which reflects the shift of attention from the teacher to learners
 - to **access** digital learning **content** and to **interact** with other learners, parents and experts beyond the classroom.



Use of ICT (continued)

- Conditions for the effective use of technology in classrooms:
 - When there is a **diversity** of teaching strategies
 - When there is **pre-training** in the **use of computers** as a teaching/learning tool
 - When there are **multiple learning opportunities**
 - When the **learner is in control** of learning
 - When **peer learning** is optimised
 - When **feedback** is optimised

(Hattie, 2009)



Use of ICT (continued)

- UNESCO also provides practical recommendations for the use of accessible ICT that facilitates personalised learning. These include:
 - Facilitating learners to ‘**self-accommodate** by learning the computer features that best suit their needs’
 - Using **accessible ICTs** as an integrated part of schools’ ICTs plans
 - Fostering ‘an **inclusive and positive attitude** towards the use of technology for learning’
 - Providing **teacher training support**

Literature

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