

Teaching strategies and projects with ICT – implementation in the classroom

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**Information and Communication
Technologies
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**Teachers = the key protagonists
of formal education**

3 teacher types

- **Surfers:** welcome ICT presence in schools, strive to acquire ICT skills and apply them in class
- **Defensive teachers:** ignore ICT, stress other – non-technological – skills
- **Ambivalent teachers:** posited in the middle, alternating between the two above approaches

Motivation for ICT use

can be of 2 kinds:

- Push = an external requirement necessary to adjust to
- Pull = an opportunity attractive to an individual

Push situations: school leadership and “techie kids”

- **School leadership** – training, integration of ICT in teacher work and school administration
- **“techie kids”** – the pressure is implicit; teachers infer it from pupils’ behaviour

Pull situations: pullers and technologies

- “puller “ – a person who inspires respondents in a certain way without applying direct pressure
- technologies themselves – the fact that ICT are available and ready for use

Teaching strategies

and

**methodological functions of
technologies**

*Original, inductively derived **typology** concerning all technologies*

- ICT as a **medium** (presentation, self-study)
- ICT as a **working tool** (tasks, projects)
- ICT as a **testing tool**
- ICT as an **extension** (eye, abilities)
- ICT as a **stage prop and stuffing**

Content transmission medium

1. Teacher's presentation with ICT

support, ICT as a tool, teacher as an actor or director, it is the teacher who determines how ICT is used – pictures, audio etc.

2. Pupils' self-study, teacher does not interfere

Working tool

- 1) **task**: simple algorithm-based tasks, the activity itself is the goal
- 2) **project**: divergent task instructions, emphasis on the result of the activity

Testing tool

to practise acquired skills in a test

Extension

Multifunctional tool supplementing,
supporting or extending pupils' bodily,
sensory or mental abilities

Stage prop and stuffing

ICT do not contain any key elements of educational content, they are used to liven up the lesson and to entertain, or to provide a backdrop to other activities

Autonomy vs. determination

Autonomy = freedom from the dominant source (textbook), creative development of own (digital) materials

Determination = attachment to a technological source which can control the whole lesson

ICT and power in class

The concept of „power“

- Individual's ability to influence actions of another person or group of people (McCroskey et al., 2006)
- Teacher's role always involves social influence and influencing students is the essence of teacher's work (Richmond and Roach, 1992)
- If a teacher is to be able to help pupils construct their knowledge, s/he has to be able to make them pay attention to him/her and follow his/her instructions

Five bases to derive power from

- **Legitimate** power (in consequence of status or title)
- **Coercive** power (individual's ability to punish or threat with punishment)
- **Reward** power
- **Expert** power (an individual has access to specific and exclusive knowledge)
- **Referent** power (based on emotional identification, the need to impress a person we like)

(French, Raven (1960) in Barraclough, Stewart, 1992)

ICT and power

- Educationalist discourse concentrates mainly on the innovative potential of ICT as a didactic tool
- Media can transform social relations (*McLuhan, 1991*)
- What is at the core of power and authority is information control (*Meyrowitz, 2006*) – which has been weakened considerably in the ICT age
- „Information system mixing“ occurs: teacher’s expositions are confronted with information from TV or the internet

Power as a problem

Expert power as a problem

- It is **expert power** of the school and hence of the teacher ...
- ... it is “threatened “ – children may use ICT to look up – in a few seconds – information which had previously been mediated by teachers only
- ICT implementation may be used by school to keep (even strengthen) its knowledge authority

Coercive power as a problem

- ICT in class sets up another centre of power, which may compete with the centre of power embodied by the teacher
- Children focus on ICT and may thus escape from the sphere of the teacher's coercive power
- ICT use is often an experiment leading to tension even in experienced users

Strategies of power control

Motivation strategy

- Teachers use technologies mainly as a *motivating factor*
- Teachers do not expect ICT to boost efficiency of knowledge and skills construal or acquisition
- The goal is to set up a situation in which pupils will be willing to cooperate with the teacher's didactic efforts
- Presence of ICT “tames“ problem classes

- The basic building block of motivation strategy is the so-called *titbit*, i.e.

a sequence of class activities whose primary goal is simply to “please” pupils rather than make them learn something new

The secret of technological titbit is known to all teachers in the sample, who use it in a variety of manners.

- titbit = e.g. free time for chatting after completing a task

Regulation strategy

... is aimed at restoring expert power

■ Regulation of information flow using ICT takes place in two riverbeds:

1. towards the teacher – to speed up the flow of information

... the teacher uses ICT when preparing for classes, strives to get enough up-to-date information

2. towards the pupils – to slow down the flow of information

... ICT are – in conflict with the innovation-oriented didactic discourse – used as a filling, a diversion, undemanding entertainment for pupils

New expertise strategy

- The “new expert“ is a teacher with expert power including the area of ICT
- Orientation on creativity and construction of something new is a typical feature of new expertise
- The teacher keeps his/her dominant position while as if taking up the position of a pupil – e.g. by joining pupils at work

- ICT help the teacher, make his/her life easier
- ICT are used as a tool whose meaningful use requires people

Conclusion

ICT are not only a didactic tool promising a greater teaching/learning efficiency, but can also affect relations of power between the teacher and the pupils

- ICT implementation in schools is a systemic process – implementation of the change is up to the teachers
- Teachers decide whether they are going to start using technologies or not

Thank you for your attention!