

Criteria for the Use of ICT in the frame of Self-Organised Learning

From: Carmen Stadelhofer (Kap. 3 gemeinsam mit Markus Marquard): Selbstgesteuertes Lernen und Neue Kommunikationstechnologien

Self-determination

Self-determination is the core of self-organised learning with the aid of the ICT. It is based on the double qualification of learning and media competences and refers to the contents and the methods for use of the new media. The classical teacher and pupil role is dissolved and the active use of the new media becomes a central role. The learner has an active role in the learning process, instead of a pupil, he is a role-player, a member of a team, learner-trainer, and self-learner. The role of the teacher changes from the classical mediator of knowledge to trainer, consultant, moderator, game-leader, etc. ..The ICT can strengthen the self-determination of the learner through enabling him and encouraging him to make own decisions and through fostering of productive application of his competences.

...the ICT are especially suitable for the fostering of the process of „learning through research“ as a form of self-organised learning . Through targeted Internet search via search engines, in databases, libraries, etc. it is possible to obtain information to the required subjects in a very short time. The obtained results can be published world-wide and groups and persons working on the same or similar themes can contact each other and communicate.

Learning management and meta learning

With the use of the new media, learning management becomes important task in self-organised learning. Learning goals, learning contents, methods and the application of the new media, also the combination of the learning, method and media competences have to be synchronised with the learning process and evaluated in order to protect themselves against the own dynamics of each the media applied. Education and consultation about the media can support the learner in the learning management. PC can help to coordinate time and work processes more effectively and to integrate breaks and relaxation phases. New media can also support the evaluation and reflection of the learning process by the learner.

Widening of competences

Competence widening on behalf of the learner has to be the in the centre of self-organised learning with the aid of the ICT. The learning programs and other educational offers that use the new media have to be constructed in a way that fosters competence development stages. They should not only wake the interest in learning through attractive design, but should inspire creative thinking and more openness, the contents have to be challenging for the learner. Strengthening the ability to make a judgement and fostering the ability to discover new things have also to be taken into account.

Experience learning and informal learning

These two learning forms play an important role in the area of self-organised learning. Experiences from the life-context have to be integrated in the learning with the new media and new experiences have to be made possible. Virtual role and decision-making games can for example enable new experiences, help to remove cognitive barriers and acquire complex concepts. Making own experiences and testing what was learned increases the learning effect and fosters the development of new competences.

The inclusion of various senses in the learning process

The inclusion of various senses in the learning process can strengthen memory and also motivates. The new multimedia can use these findings. It can open associative, pictorial, intuitive and emotional

approaches as well as rational learning levels. In contradictory information and much too frequent sensory changes is the effect however contra-productive. In the use of the new media the various multimedia possibilities such as the integration of images, text, video, music, etc. have to be applied in a comprehensible and inspiring way in the learning process.

Taking action in the learning process

Taking action in the learning process also supports learning as own action is instrumental to the most intensive learning experiences. The ICTs offer many application possibilities. Various forms of action can be tested not only in the frame of games. Own action can come to expression through the creation of texts, images, music-collages, publications of own texts online and communication over the web. The measure of possibilities for action relates to the level of interaction possibilities

Interactivity in the learning process

Interactivity in the learning process includes various qualities, which can be differentiated according to the grade of interactivity. While print and audio-visual media allow small, or limited interactivity, various forms of software and the medium of CD-ROM offer potentially much higher interactivity. Although this is determined at the beginning by the programming, the user can exercise much more influence on the learning process and wins and impression, that the program orients itself on his behaviour. The quality criteria of this form of interactivity is for example the way, how the software reacts to errors, i.e. if it only provides the answers “correct/wrong” or if it goes into more detail and also offers explanations. A higher grade of interactivity can be achieved over online-media, where specific consultations can take place over e-mail and where joint learning can take place in virtual classrooms. Also the so called MUDS (Multiple User Domains) in which one can learn similarly as in role plays offer much more interactivity than a book. In this way, the aspect of interactivity contributes to the social aspect of the learning process.

The social aspect

As the learning effect is reinforced by reflective interaction with the group, the learning process is decisively determined by the social aspect. Social relationships and communication enable the exchange of new aspects and the social learning experience itself.

Often associated with the term “self-organised learning” is an image of an individual learning from his books and endangered by social isolation. The new information and communication technologies are sometimes thought to cause separation and isolation of people. This image does not correspond with the understanding of self-organised learning described here. The new media can not only foster social communication, but also create it as well as totally new forms of social communication. Irrespective of place of residence, physical appearance, social context, can one come into contact with other people who share the same interests, and interesting contacts with individuals or groups of people can come into being. Acquired over the new media can be communicative competences and there is also a chance to get a social acknowledgement. It is therefore important that the social aspect in virtual learning processes are taken into account and places for social experiences created in the design of new ICTs.

Moreover, the concrete social experiences in learning groups should also be a part of learning to foster learning motivation and to make communication (also experience of group-dynamic processes, feelings of solidarity, ambiguity, frustration tolerance, etc.) via the ICTs easier.

Systematics in learning process

Systematics of chronology and linearity in learning process can vary depending on method and media. Books are mostly seen as a linear media. If these are compared for example with the medium film and video, one can see that books can be used in a very unlinear but still systematic way. The new media

and especially the so-called hyper-learning enables such unlinear procedure that may be helpful for a targeted increase of knowledge. The systematics of the learning material can be largely self-steered according to the particular interest-directions, but should be always monitored within the frame of learning management.

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