Alternative Instructional Models and Intercultural Training

Knowledge-Organization and Design-Support With CEDID
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Groundwork as well as focus of the following report is the "Göttinger Katalog Didaktischer Modelle" (Goettingen Catalogue of Instructional Models), the arrangement of which was started by Karl-Heinz Flechsig in the middle of the seventies and which has been a fundamental field of research for the "Institut für Interkulturelle Didaktik" (Institute for Intercultural Didactic) of the Universitity of Goettingen, meanwhile to be continued at the Pedagogical Seminar at this university. This catalogue is concerned with the collection, compilation and systematization of alternative forms of organized learning and teaching and furthermore the documentation and utilization of these by means of publications, courses and computer programs. Since 1989, this is done within the software system CEDID: "Computer-ergänztes Didaktisches Design" (computer-supplemented instructional design).

The use of computers in educational systems has been manifold, but it concentrates on the support of learning processes and general aspects of management (like collection of demographic data, text writing, and time schedules). The growing professionalization of didactical planning which hereby is called "instructional design" urges upon the search for potentials of electronic data processing.

Theoretical Foundations

A major motive for the continuous work on the "Goettingen Catalogue of Instructional Models" was aversion to quick and frequent trend changes in didactical theory and model building that had taken place within the last forty years, at least in Western Germany, and that had led to a certain "ex-and-hopp-didactic". Conclusively, this work was continued persistently.

A further motive was oriented to instructional variety which is grounded in historical, cultural and inter-individual diversity: people have developed in different times and under different cultures different patterns of learning and teaching, and to a certain amount these are present as an inter-individual variance. Former trials to find out by means of empirical investigations the one and only best fitting instructional method have been given up, at least since a lot of "Apitude (or Trait) Treatment Interactions" have been found at the beginning of the seventies: specific prerequisites of learners and specific requirements of the competencies that shall be evolved urge for specific instructional settings. There exists no instructional "Königsweg" (chief path). But if one wants to make use of electronic data processing in a routinized way there must be certain regularities that can be used as a basis for programming the algorithms. The systematization of instructional processes which already had been done within the "Goettingen Catalogue of Instructional Models" offered such regularities. This leads to questions towards the instructional designer, the answers and decisions are to him and her.

Furthermore, there is enough insight that the modeling of learning environments must consider the genious components of the envisaged model. If one decides to organize a workshop, the learners cannot be novices of the topics in question; they have to be involved, already during the preparation and planning of the workshop, and they have to make certain preparatory decisions which require a rather profound thematic knowledge and experience. Without this, they cannot play their roles as participants with equal rights. On the other hand, if one decides to prepare and start an exploration, the learners may be quit inexperienced with the exploration field, because an exploration usually serves for first contacts with the field and for orientation knowledge about it.

With the help of such a systematization of instructional planning and decisions that had already been done within the Catalogue it became possible and meaningful to develop routines and algorithms for a computer program.

Besides this action-oriented concept, the program development was guided by the assurance that people have different styles of learning and operating. The program should be usable under consideration of such different styles. A model that had been developed by Gordon Pask served as a guideline for our work. This model is one among a plenty of approaches to learning styles (Haller, 1992) and makes evident two basic styles of learning (Pask, 1976): "holistic" (with a permanent change between concretion and abstraction) and "serialistic" (a step-by-step learning, where abstractions develop out of concretions).

The construction of programs within which learning plays an important role should take account of the experience reported by Pask that serialistic learners hardly can get on well with holistic learning environments, whereas holistic learners rather can do so with serialistic environments. "Versatiles" are people who manage best both environments. This leads to the conclusion, that such programs should have at least a "serialistic platform" which is supplemented by "holistic facilities". In our program system this has been taken in regard by using operative knowledge (which regularly is easier structured in a serialistic way), and background-knowledge (which must be asked for and be integrated actively and which usually is more convenient to holistic learners). In addition, this presents a dynamic (operative knowledge) and a static (background or declarative knowledge) component in the system.

Characteristics of the instructional model-approach
With the term "instructional model" a level of medium range for reconstruction and presentation of instruction and learning was steered for in the context of the "Goettingen Catalogue of Instructional Models"; less concrete than the term "instructional method", and less idealized as it is done with different categorical approaches (which are very popular in Germany). The attribute "didaktisch" was chosen in the German expression, because it lays particular emphasis on both aspects: instruction and learning. The noun "design" was chosen in analogy to other programs that support artistic operations (like CAD, Computer-aided Design).

The following list contains the expressions of all 20 models in German and equivalents in English and French:

1. Arbeitsunterricht - activity method, assignment method - enseignement actif, méthode active
2. Disputation - disputation, debate – disputation, débat
3. Erkundung - exploration, excursion, field-experience approach - découverte de l'environnement, étude du milieu, excursion
4. Fallmethode - case method – étude de cas
5. Famulatur - apprenticeship, asssistence - apprentissage par assistance, assistance, stage
6. Fernunterricht - distance study, correspondence instruction - cours par correspondence, formation à distance
7. Frontalunterricht - classroom teaching, teacher directed learning, expository teaching, frontal teaching - cours magistral, méthode expositive, enseignement frontal
8. Individualisierter Programmierter Unterricht - programed instruction, personalized instruction – apprentissage individuel programmé
9. Individueller Lernplatz - individualized learning center, laboratory plan - apprentissage à la bibliothèque, travail autonome

10. Kleingruppen-Lerngespräch - small-group discussion, micro-study circle - apprentissage en petit groupe de discussion, discussion en petit groupe
11. Lernausstellung - educational exhibition, exposition – exposition (didactique)
12. Lerndialog - educational dialogue – dialogue (éducatif)
13. Lernkabinett - clarifying educational environment - environnement éducatif élémentaire
14. Lernkonferenz - educational conference, symposium - colloque, congrès, réunion
15. Lernnetzwerk - educational network - réseau d'apprentissage
16. Lernprojekt - project method – méthode de projet, projet d'apprentissage
17. Simulation - instructional simulation – (jeu de) simulation
18. Tutorium - peer tutoring, proctor method - enseignement par un pair, méthode monitorale, méthode tutorale, tuteur
19. Vorlesung - lecture method – conférence, discours
20. Werkstattseminar - educational workshop – atelier didactique

Most of these terms are due to historic expressions (the "disputatio" in the medieval university, e.g.). All have a different (about 4 to 8) number of variants (e.g., the "Montessori Method" or the "Jena-Plan" belong to "Arbeitsunterricht"). They are described in a handbook (Flechsig, 1983, 1991; Flechsig & Gronau-Mηller, 1988), in detail by their fundamental didactical principals, the sequential phases, the elements of the learning environment and their suitability for particular contents and target groups. This documentation and presentation system was called the "Göttinger Katalog Didaktischer Modelle" (Goettingen Catalogue of Instructional Models) and soon was supplied with corresponding activities (treatises on and reconstructions of special practices, courses for instructional designers, e.g.).

This is the list of all design operations which may be supplemented by the program CEDID, each containing about 30 items or operational steps:
Context Analysis (inquiring for information and decisions about the reference system, target groups, resources, demands),
Program Design (inquiring for information and decisions about concepts and goals of the whole program to which the planned course design will be part of),
Model Choice (that means deciding for a given situation, which instructional model(s) fits best),
Course Design (configuration of a knowledge map, analysis of the disciplinary content and collection of competencies),
Block Design (shaping of the learning environment and its elements, of the learning and teaching functions and actions,, the sequences and phases, all this depending upon the model that was chosen),
Proving (hints for the try-out of a design),
Evaluation (evaluation of a design, regarding about 70 criteria, filled out by the designer or another person).

The program supplements the work of an instructional designer by guiding him or her during the design operations in form of a problem solving algorithm (step-by-step operations); giving him or her a wealth of background-knowledge, which could be from explanatory knowledge to labor-saving tools.
During the design work, the instructional designer is free to copy from the given background-knowledge whatever he or she wants as part of his or her work, and can alter these documents to the given needs. All productions are constantly stored in a design-protocol, which can be
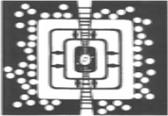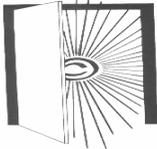
recorded, processed and printed, and which will serve as the detailed plan for teachers, trainers, or other instructors. A typical design-protocol for a course of about 30 hours active learning time covers about 40 pages of text and contains details about aims, important topics, competencies for the learners, selected instructional model(s), sequences for learning, demands for constructing the learning environment, hints for useful learning materials, fundamental actions and functions of personalities and further hints for implementing and evaluating this plan. The working time for the instructional designers varies considerably; normally it is about 20 to 30 hours for such a product of high quality.
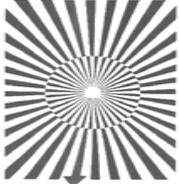
Special considerations for eLearning and intercultural trainings

Intercultural training programs have been developed since the 60s. Each program has specific characteristics which reflect their respective context requirements. First, most of the programs were specially designed to prepare people for intercultural "encounters" in a military context or for youth exchanges (young people, pupils, students) as well as for volunteers in foreign aid programs ("peace corps"). Typical for the preparation to a cultural exchange are simulation games like "Clues and challenges", which was invented in the context of "Youth for Understanding".
Thus a strong affinity is recognizable with more than one of the didactic models: the simulation game as well as the case method which delivers rather an analytical view than a training of roles and behavior. A further procedure which is of great importance in intercultural training programs is the casuistic orientated approach "the critical incident technique" which is the basis for the "culture assimilator"
The following overview presents the didactical models under special regard to the e-Learning as well as to intercultural trainings. The latter is first meant to be for staff, who works in the context of their professional activities (e.g. as social or health advisors) with clients from other or different cultures. In addition, in the broader sense the training and learning forms are also applicable for such intercultural clientele.

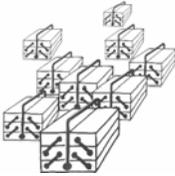| Didactic Model Definition	Didactic Principles	Reference to eLearning	Reference to intercultural training
Activity method, assignment method: Learners work on complex tasks individually or in small groups in order to practice and apply (theoretical) knowledge and skills.	autonomous learning, individualized learning, holistic learning; learning in small groups, project seminar	Tasks referring to information in the web. Work individually or in small groups on written objects. Practical works are to be documented visually (video) and accompanied by comments. A possibility for written corrections is lacking. Presentation of results in the net.	
Disputation: Learning with the technique of pro and contra whereby the range of divergent opinions on matters of dispute was organized into categories, for and against specific propositions in order to train the power and ability of judgment and reasoning.	dialectic learning; Dispute, Debate, Technique of pro and contra Panel discussion	Chat could be a possibility. Presentations of participants of panel discussion	Discussion on different values
Exploration, excursion: Learners explore the natural environment or institutions for the observation or data collection, in order to overlook coherences and to arouse new interests or points of view.	learning by experiencing, learning by direct contact/practice, orientated learning, incidental learning excursion, exploration, practical experience, field study;	Preparation by researching in the Internet, e.g. geographical data. Exploration in the Internet which is part of the "real world". Presentation of results of explorations in the net	Visits to exhibitions, visit of houses and neighborhood excursion to the land collecting relevant information on other cultures via internet

Case method: Learners work individually or in groups on reconstructed cases in order to acquire knowledge about the specific practice or procedure and to train the decision-making ability and power of judgment. Case-based learning using case studies to present learners with a realistic situation and require them to respond as the person who must solve a problem	practical learning, problem-solving learning; case study	Preparation by researching in the Internet, e.g. portals containing information on enterprises. Networking on cases. Presentation of case descriptions in the net.	Simple cases on intercultural relations/conflicts Critical incidents Culture assimilator
Apprenticeship, assistance: Practitioners acquire specific knowledge of high quality by assisting an expert with his/her work over a longer period of time.	learning by assisting, learning on a model; assistance, voluntary service;	Very limited possibilities: An accompanying video documentation would be necessary for both parties. Problem of feedback.	Accompanying a qualified person
Distance study, correspondence instruction: Learners acquire (theoretical) knowledge (facts, terms, models etc.) by reading specially prepared learning /teaching materials as well as by working on meaningful tasks	individual learning, learning with media correspondence courses and studies, tele-college, tele-learning	„Classical model" for some components of eLearning (historical precursor), in particular web-based course offers.	Study material on theories and models of culture and intercultural relationships

Classroom teaching, expository teaching: Learning is initiated by the teacher and supported by illustrative material aiming at transmitting specific orientation knowledge.	teacher-guided learning, learning in learning groups thematic-orientated learning; presenting education, "impetus-giving" education;	This is still the predominant model in formal training institutions. Not very suitable for eLearning.	Teacher guided course (expert)
Programmed instruction, personalized instruction: Learners acquire predefined knowledge and skills by following a programmed learning program in small and individual learning steps.	individualized learning, programmed learning, target-orientated learning; computer-based training (CBT);	Another precursor for certain elements of the eLearning ((„Web-based training"). This model offers advantages to serialistic learners because of its clear structure and instructions (meets a need for security and orientation within closely socialized learning groups).	
Individualized learning center, laboratory plan: Learners acquire factual or term knowledge with the help of selected and systematically arranged texts and AV-media which stand in relation to previously developed questions.	self-directed learning, learning with media, Interlinkage between cognitive structures of the learners and the knowledge categories/frame; self-learning place, library	Very suitable for eLearning. So far mostly used in informal training, danger of redundancy. Many web portals offer themselves as "junctions" by offering (usually topic-specific) linkages. Prepared information collections are still rather rare, there are mostly unstructured glossaries.	

Micro-study circle, small group discussion: Learners acquire predominately knowledge about personal experiences, evaluations, attitudes and desires by sharing information and opinions in a structured discussion.	learning by mutual exchange, learning in structured dialogues group discussion, thematic-centered interactive method	Typical for "chat" and forum, but up to now approaches for structuring are lacking.	Sharing experiences on intercultural encounters
(Educational/learning) exhibition: Learners acquire knowledge at open learning spaces by regarding or handling exhibited or commented objects or illustrations in a certain order.	mobile learning, learning with "exhibits"; fair, activity museum;	In the range of museum portals there are already very well elaborated examples. It's not yet recognizable as an element of the authors' tool for eLearning platforms.	Exhibition to present a culture, learners could prepare an exhibition with clients from a certain culture
(Educational) dialog: Learner lead detailed and arranged dialogues with other people, in order to obtain perceptions about themselves and their relation with the environment.	dialogue learning, discovery learning, (identification process in a double sense); socratic Dialog, therapeutic dialogue. dialectic dialogue;	An early example (1966) was the program "Eliza" from Joseph Weizenbaum, who simulated a client-centered therapy after Rogers (in its concept a parody which was seriously taken by many of his students). In the Internet follow-up programs are presented in abundance. Automation actually contradicts the approach of human communication.	Lead a clarifying interview with a client

Clarifying educational environment, interactive man-environment learning system/approach: By acting in a specially equipped and didactically prepared learning environment, learners acquire theoretic and practical knowledge from multiple perspectives.	learning in elementary situations, multi-perspective learning, learning without intended purpose; "Freinet"-pedagogy;	Actually, no examples available.	
Educational conference, symposium: Learners meet other people, in order to mutually transmit (actual) problem-solving or interpretation knowledge in lectures, discussions and prepared contributions.	collegial learning, incidental learning; congress, symposium, conference	Corresponds to the programs for project management and video conference.	
Educational network: Learners produce new knowledge, in particular about innovative practice and mutually and unselfishly exchange this knowledge in mostly written reports.	experience-related learning, mutual learning, activation of dynamic knowledge; experience circle, computer conferencing, video conferencing, Internet;	Examples are forums and news-groups	Trainers build up their own network for exchanging experience during practice

Learning project: Learners participate in projects of innovative practice, in order to apply newly acquired knowledge and to contribute to the improvement of the practice.	innovative learning, interdisciplinary learning; projects;	The element of the practical activity is also missing here. Programs for project management could coordinate the distributed work packages of the project.	
Simulation: Learners adopt a part (often in a playful way) and/or act in a simulated environment, in order to develop and train above all their decision-making ability and their capacity to act in naturalistic, but however relieved situation.	playful learning, anticipatory learning; planning game, role play, simulator training;	Planning games were already organized at an early stage with the computer and via the internet. How can dramatic scenes be integrated?	Culture simulation games from short role plays to complex strategic learning
Peer tutoring: Learners become teacher themselves and transmit knowledge to their peers.	learning by teaching, learning from peers; training-assistance approach;	Many new impulses, since many platforms for vocational training contain the tutorial function as a substantial characteristic.	

Lecture method: Learners acquire knowledge and concepts by participating as members of an audience in an oral presentation partially supported by media.		In comparison to lectures in presence learning other dramaturgic means are necessary in eLearning, e.g. close-ups of experiments or projections as well as a shorter time interval seem to be substantial, since the attention of learners is different in an eLearning context. Direct feedback of learners is missing.	
Educational workshop: Experienced people acquire predominately up-to-date knowledge which is brought in either by individual participants or produced together and solve at least exemplary problems.	product-orientated learning, collegial learning; workshop, quality circle,	Again arises the problem of illustration and coordination of practical activities. "Chats" are only little suitable for verbal communication because of their reduced forms of expression (better would be a video conference). In this context, it is very helpful to offer common "whiteboards".	To find solutions for problems in practice and to develop case study and simulation material.

Future Directions

CEDID was proved in several workshops with instructional designers from different fields of training and education (vocational schools, industrial firms, service industries, adult and further education, administration, teacher training). In close contact with the partners of the Integration-project it will be further elaborated on instructional trainings for professionals who work with clients from other cultures than theirs.

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