CHAPTER 5 • TEACHING: DIDACTIC ISSUES IN ODL

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1. INTRODUCTION

A teacher needs knowledge of both teaching and learning. Currently the common tendency is to focus on learning. This is a positive development because we then focus on the learners’ development of competencies and general education.

But the tendency to focus on learning instead of teaching is also problematic when the role of the teacher vanishes due to the focus on the learner. Normally a teacher in a modern educational institution is given very few teaching guidelines in advance. This demands that the teacher be capable of planning the learner’s learning processes autonomously.

In this chapter we understand teaching as encompassing the didactic considerations the teacher needs to make in his/her teaching.

The planning of teaching in ODL demands more attention than normal because it often includes electronic media as the learning platform. The consequence of this approach is that it is difficult to develop close contact between the teacher and the learner as happens as a matter of course in ordinary teaching.

Therefore the teacher’s needed competencies change essentially from being based around arranging subjects – as in the traditional classroom – to being based around arranging the learning process for individuals or groups who will need to work autonomously.

We have built this chapter upon a didactic theory. First we illustrate the theory, then we explain separate parts of the theory in six sections. In each section there are also suggestions of how to implement the theory. Finally we conclude the chapter with a section that also contains descriptions of further competencies that an ODL teacher should possess.

2. DIDACTIC COMPETENCIES

We have chosen the didactic model of relations put forward by Hiim and Hippe. We are aware that there are many other theories we could base our chapter on, but we have chosen Hiim and Hippe, because it accords with constructivist thinking.

It is important that a teacher have certain didactic competencies to be a successful ODL teacher. Above the basic competencies of being able to carry out the teaching programme a
teacher also has to posses the following competencies:

- Ability to develop a suitable curriculum where the learners’ needs correspond to the design of the work packages (arrange learning processes)
- Competencies connected to different teaching roles (responding, motivating, coaching)
- Competencies related to evaluation and reflection

It is important to be aware of the distinctions between the roles of the developer/designer and the teacher. Often the developer/designer is the same person as the teacher, but it is also common for the roles to be held by different people.

The task of the developer/designer is to design the course or learning work-package to get the maximum possible learning results, while the teacher is responsible for guiding the learning process. The teacher’s ability to master two-way written communication is central to success. This demands mastery of a completely new electronic communication form, which is quite different from face-to-face communication. The main difference is that the teacher is not able to “read” students’ facial expressions or gestures and cannot easily sense the psychological environment faced by students in distant teaching. It is very difficult to find these things out based only on written words and therefore the teacher must use other kinds of inputs from students to get this information.

Both the developer/designer and the teacher need to evaluate and reflect on the course afterwards. Reflection is also a central element in modern learning both for the teacher and the learner. As support for the learner’s learning process we advocate the use of electronic logbooks, portfolios and dialogue.

A Danish example is the pedagogical computer license called School-ICT specifically designed for teachers in primary and lower secondary school who by law are required to implement ICT in their teaching. A central institution (UNI-C) was tasked by governmental with developing a course and to train teachers. The course has been delivered to more than 35,000 teachers and is now being implemented in Norway.

Uni-C has also developed a course called Seminarie-it for teachers of adult education. Seminarie-it is especially developed for lecturers who teach future primary and secondary school teachers.

### 3. DIDACTIC THEORY

This chapter is based on the didactic theory created by Hiim and Hippe (fig. 5.1), which relates the six most important aspects of planning a work package. The theory is based on a goal of focusing on the most important aspects for planning the work package and on the connection between the different factors. All factors are mutually dependent; changes in one feature have consequences for the other features.

![Model of Didactic Theory](image)

**Fig. 5.1 Illustration of the model defined by Hilde Hiim and Else Hippe**

#### 3.1 Initial circumstance of the learner

A review of the initial circumstances of learners can show that learners are in very different situations and that this may mean that learners have to work with a range of different approaches to accommodate their own ways of learning to get the optimal results. They have varying needs, demands and goals in relation to teaching and different learners may learn best by using different learning approaches (see chapter 6).

Questions to ask about the initial circumstances of the learner include:

- What professional or other relevant skills does the learner have?
- What communication skills does the learner have?
- What collaborative skills does the learner have?
- Is the learner motivated to pursue the subject?
- Does the learner have any special problems or need for resources in relation to the teaching?
- How does the learner learn?

Both in planning and in the contact with learners it is necessary to consider the above questions. You have to think about these questions both in connection to the group of learners as a whole and in connection with each individual learner both in the planning of the work package and in feedback.

When planning an ODL work package or course it is possible to begin with a pre-test of the relevant skills of the learners to make sure that the planned work package or course will suit their needs. This can take place by using a multiple-choice test on the Internet and/or through one-on-one interviewing.
It is important to respond to the learner at their own level of expertise. In other words, the teacher has to meet the learner where the learner is. The questions above are used to find the appropriate level to start at.

These considerations help the teacher to formulate the best way to provide instruction and feedback to individuals and groups of learners. Below we have explained some essential rules setting out the most common patterns of instruction and feedback in ODL. They are:

- **KISS (Keep It Simple, Stupid)**
  As a teacher you know a lot more than the learner, but the learners are not capable of learning it all at once. Therefore you have to keep the instruction and feedback at the level the pre-test showed the learner could manage. Otherwise the learner will get frustrated by demands that are above their level of ability.
  The KISS rule helps the teacher to remember that we always must take the level of the learner into consideration when teaching.

- **PWP (Praise - whip - praise)**
  The PWP is a rule of how to dispense feedback. Start the feedback by summarising the submitted work and praise the good parts. This opens the mind of the learner and makes him/her receptive to the critiques that follow. It is also crucial to end the feedback in a positive way with more praise because it makes the learner feel motivated to work with the critiques afterwards.

- **MOQ (Make Open questions)**
  Teachers have to meet learners at their own level and motivate them to perform to their best. This is done by using open questions and instructions for how to reach a higher level of knowledge, e.g. by referring to supplementary materials or describing the core elements of another angle of the problem, which can motivate the learners to seek more information. Open questions with more possibilities for solving the problem also enhance the learners' motivations to discuss the assignment with the group and thereby also enhance his/her abilities to cooperate in other contexts.

### 3.2 Frameworks

By the term frameworks we mean the conditions that govern teaching that emerge from different levels such as the frameworks produced at the level of the class, the school, or the wider contexts. Frameworks can influence the didactic considerations of planning, carrying out and evaluating teaching.

When considering frameworks, questions to ask include:

- Do you have to use a special technical platform or is the teaching independent of the chosen of technical platform?
- Is your day-to-day teaching controlled by a curriculum?
- Are there any relevant national frameworks?
- Are there time constraints?
- What skills does the teacher have that are relevant to have to the practice of ODL?
- Do all learners have access to the Internet?
- Do you offer ODL only or blended-learning?

If the developer/designer or teacher is dependent on a specific technological platform, then it constrains the framework for the didactic approach. Given real world constraints, it is sometimes the case that the platform governs the didactic approach. In other words, the choice of platform is a strong influence on the planning of ODL.

The curriculum will normally express the educational purpose and paradigms such as content and objectives and can also include a syllabus. In formal education the curriculum is normally specified by the authorities.

The curriculum thereby provides an indication of the extent to which the developer/designer can use constructivistic, constructionist, and instructivistic approaches. E.g. a maths course includes more constructionistic teaching than a course in history, which would consist mainly of constructivistic teaching. Instructivistic teaching is useful in courses where specific skills are being taught.

The above conditions are limitations that come from an outside party which the teacher cannot control. Planning the ODL work package is constrained and the teacher has to consider how the limits affect the work packages. E.g. it may be possible to use either constructivistic or instructivistic teaching methods to teach the same curriculum, but in ODL a constructivistic approach will provide better results.

If the authorities have influenced the curriculum it is usually based on traditional classroom teaching. It therefore does not fit with the typical demands of ODL teaching. For instance, the learner will have to know from the start what to do and why. It is also difficult to use “just-in-time” learning.

Time constraints can have an influence on how much it is possible to teach the learner. It is a central tenet in constructivistic ODL that learning is a process which needs time to allow for consideration, response, discussion and getting feedback several times from other learners or the teacher and therefore it is difficult to increase the speed of learning.

It is possible to change some of the conditions of the teacher or the learner in the framework. The teacher can go on courses to get more skills or get access to better technology. The learners can be provided with access to the Internet and the necessary technology.

Frameworks include all the conditions connected to the possibilities for and to the limitations to teaching. They are connected to conditions in the classroom, the conditions of collaboration among teachers and the teacher him/herself.

### 3.3 Goals

The goal is the purpose of the education/teaching. Goals can be found in the mission statement of the learning centre; in governmental policy initiatives, regulations and laws; and in the specifications for different subjects. There are different opinions about what values and knowledge goals should reflect. E.g.

- Cognitive goals such as: Assessing, understanding, using and reproducing
- Attitudinal goals such as: Having an attitude based on values; appreciating and accepting; and reacting.
- Knowledge-based goals such as: developing skills, behaviour and comprehension

When thinking about goals, you should ask:

- What knowledge, skills and attitudes should the learner possess after the course?
- What do society, the school, the teacher and the learner want to obtain through the day-to-day teaching?

**What is the individual goal for the learner? It should be set by the learner him/herself or together with the teacher.**

The purpose and the objectives of a course are normally provided when the learner signs up for a course. The question left open is how they will be achieved. The role of the designer is to think of different ways to achieve the objectives – depending on the situation of the learner, his or her learning style and the characteristics of the course content.

Knowledge can be divided into 2 categories:

- What to know (Know what)
- How to do (Know how)
As a tailor you need to
- Know about textiles
- Know how to sew a pocket

In constructivist learning it is best to set most of the objectives in collaboration with the learner. It helps the learner to feel responsible for the process of learning because the objectives reflect his/her own learning needs and interests. It does not mean that the teacher is no longer responsible for the process, but that the teacher uses the process of collaboration to create a better work package.

Goals are managed by external factors set by others and internal factors set by the learner, by him/herself or together with the teacher.

3.4 Content/material

The content refers to the content of the teaching, both the material and the subject matter.

When deciding on the course the developer/designer needs to find materials (learning objects) that will lead the learner to the objectives. If the objective is to train the learner in the design of pockets, an assignment could be to design a jacket with at least five different types of pockets.

When thinking about content and material, we should ask:
- What professional/vocational material does the training have to contain?
- Which part is based on practice?
- Which part is theory based?
- How can the assignment lead to personal development?
- What can the learner do alone?
- What can the learner do in a pair/group?
- Do the material need instruction from the teacher?
- Does the content require face-to-face meetings?

The content is the “what” aspect of teaching. There may be official curricula where the content of the education/training is described and then there is a hidden curriculum where the social, emotional and personal sides of the learning must also form a part of the teaching. This also has to be a consideration when planning the course.

In practical ODL teaching it must be possible to practise. Some schools chose to provide a room, materials and expertise at set times so the learner can practise in collaboration. Others chose to let the learner practise by him/herself at home and only evaluate the outcome.

It is important to be aware that it is difficult to transfer material from face-to-face courses to ODL courses. The material for the ODL course needs to be more specific in order to let the learner know exactly what is expected of him/her. It also needs to make the learner feel more secure about the learning process and may need to provide additional support for learning.

There are important considerations connected to the learning material. If it will be published on the Internet you must have the permission of the author. Otherwise it must be copied and sent to the learner by post or the learner must buy the book.

A teacher normally spends quite a lot of time in developing a work package and often it will take even more time to work with learners. Should the results of this hard work be made available without charge over the Internet?

3.5 Working processes and methods

The working processes are about what the teacher and the learner choose to do during teaching and the methods are the background and arguments for different choices. It includes both general and subject related considerations of a didactic nature. This concept is especially concerned with the relationship between teaching and learning.

In connection with this concept you have to think about the following issues:
- Are the methods based on the learner getting skills from the subject? (instruction) or
- Are the methods based on the learners’ understanding and use of the subject? (constructivist)
- Is the working process based on just-in-time teaching? (unstructured) or
- Is the working process based on just-in-case teaching? (structured)
- Is the goal for the learner to reproduce certain skills demanded by the topic? If so instruction either from the teacher or through self-instructed programmes such as film, video, computer programs is the most suitable approach.
- Is the goal for the learner to take an independent attitude to the subject? If so the learning should be structured as dialogues, group work, project-based teaching, role-playing etc.

A consequence of ODL for teaching is that there are new forms for collaboration. This means that face-to-face meetings can be used to encourage social relationships with the rest of the classes as well as the learner’s own group. This also has the advantage that the learners get a picture of what other learners look like. This is important to facilitate dialogue when the students are apart. It can also be used as an induction session to make sure that all learners know where to find course materials, how to access the platform or even learn how to be an ODL learner. There can also be time set aside later in the course for excursions and showing the rest of the class the results of the work completed in the distance learning period.

Most ODL teaching is based on a variety of different working processes. This means that one time a learner may have an assignment to work on alone while the next assignment may involve group work. An example of the succession of activities for a single course might include:
- Reading material on the Internet
- Discussing the material in groups (face-to-face or by mail)
- Discussing the assignment in groups (face-to-face or by mail)
- Writing the assignment (often on an individual basis)
- Reading and discussion by the group of the completed assignment
- The assignments are sent to the teacher
- The teacher gives written feedback
- The group discuss the feedback
- Final assignments are sent to the teacher
- The teacher marks or approves the completed assignments

The learners can also meet in real time for discussions with one another or with the teacher using online chat or instant messaging software. The teacher can also arrange discussions in individual conferences. This is done using open questions that demand an answer. If video conferencing is an option it can be almost the same as meeting in an ordinary classroom. Some teachers also plan teaching using the telephone as the medium for meetings with students.

Choosing working processes and methods depends on the goal of the teaching. The following methods are suggestions on how to plan a course based on the needs of the learner, the relevant frameworks and the identified goals:40
One-alone: online resources paradigm
In this model the learner is considered to be a self-directed learner, often only interacting with online resources such as:
- Online databases
- Online journals
- Online interest groups
- Interviews

One-to-one: the email paradigm
These instructional methods are characterised by individual and individualised instruction and learning. Relevant methods include:
- Learning contracts
- Apprenticeships
- Correspondence courses

One-to-many: the bulletin board paradigm
Under these methods learners are exposed to one or more experts in a given subject area. Specific examples of methods are:
- Lectures
- Symposia
- Demonstrations

Many-to-many techniques: the conference paradigm
All participants have the opportunities to take part in the interaction. Methods include:
- Discussion groups
- Debates
- Simulations
- Case studies
- Role play
- Brainstorming
- Group projects

Not everybody is comfortable using the same teaching method; that is why you have to develop the teaching materials so they fit different methods and different learners.

3.6 Assessment
It is essential to consider:
- What is to be assessed?
- Why?
- How?
- And by whom?
Assessments can vary from a narrow measure of the factual knowledge of participants to a wider measurement of the learners’ total development.

In connection with assessment you have to think about:
- What do you want to assess?
  - Do you want to assess the learner in relation to whether he/she reached a particular goal? (criterion-based assessment)
  - Do you want to assess the learner in relation to his/her own development in relation to what he/she was able to do before? (norm- or progress-based assessment)
- How do you want to assess?
  - Will the assessment be by multiple choice, essay, group work, oral examination, practical etc?
  - Will there be an element of self-evaluation such as:
    - Dialogue between the teacher and the learner where the learner relates his/her circumstances and learning process to the goal of the course and its content?
    - An electronic logbook where the learner reflects on his/her learning process?
  - Will the assessment be an ongoing part of the learning process?
    - Before starting to teach - make a diagnostic judgement of what the learner already can do/knows about the subject
    - Throughout the teaching - make a formative judgement so you as a teacher can guide the learner in his/her learning process
    - After finishing the teaching - make a summative judgement evaluating the learner’s achievement, the learner’s learning process and the teacher’s work.
- Why do you want to assess?
  - Do you want to give the learner feedback on his/her work and learning process?
  - Do you want to evaluate your own teaching?
  - Do you want to evaluate in connection to the rules related to the subject?

Often one encounters too much controlled and formal evaluation or assessment and too little process-orientated evaluation or assessment, which would include counselling as well as a formal evaluation.

4. CONCLUSION - HOW TO HELP STUDENTS BE SUCCESSFUL
Above we have written about the considerations a teacher in ODL has to make when planning an ODL course. We considered:
- The initial situation of the learner
- Frameworks
- Goals
- The content and material
- Working processes and methods
- Assessment
  The teacher also has another role though, the importance of which is heightened in ODL. This is to be an empathetic person who is able to support the students not only in arranging their learning process, but also by offering moral support. The teacher is now a counsellor.

It is typical of many ODL courses that there is a high dropout rate. This is because most learners make the courses secondary to other responsibilities such as childcare or work. It is however possible to support learners by:
1: giving them simple guidelines for studying. E.g.:
  - Make a schedule for your studies
  - Make a contract with your family that you will study at certain hours without interruption
  - Make agreements with your classmates about your work together
  - Set clear deadlines for different tasks/assignments - not only the ones to be handed-in to the tutor but also any intermediate steps that must be accomplished
2: keep an eye on them and make sure they feel that they are not alone e.g.:
- Check how often they read and write emails
- Contact them when they have not been active for a while and ask them if they need any help
- If you as the teacher feel that they are becoming less active ask them why
  - If the problems are on your side try to alter the situation
  - If the problems are on their side see what help you can provide
- Ask them to come to you with questions or concerns - you are there to guide them

These easy, empathetic activities by the teacher are needed to help learners keep up with the course. Otherwise it will be too easy for them to drop out.

Taking all this advice together, the teacher should have a good basis to carry out a successful ODL course.

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CHAPTER 6 • LEARNING IN ODL

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1. INTRODUCTION

The vision/view of learning has changed/developed in step with rising interest in implementation of computer-supported learning. The traditional belief was that learning means knowledge being communicated by a teacher to a learner within a classroom environment is under scrutiny.

With the implementation of computer supported learning and ICT-based learning, which has now become an integral part of open and distance learning (ODL), a teacher has to think about learning from a new perspective that is different from the traditional face to face method of teaching because pure ODL involves a lack of personal contact and requires a great deal of self-discipline from learners.

When preparing a teaching plan for a pure ODL course it is important to realise that the process of learning is often self-paced. In self-paced learning the content, learning sequences, pace of learning and possibly even the media can be determined by the individual learner. In this situation there is a shift from the teacher’s focus on the subject to be taught to a focus on the learner’s ability to learn.

It is common for teaching to be prepared in a format of blended learning, using a combination of traditional face-to-face learning together with ODL. In this instance the focus is both on how the learner learns and the subject matter of the course.

There is talk of a change of perspective with respect to blended learning to shift the emphasis away from traditional classroom teaching towards learning as becoming able to participate and become active in one’s own learning process.

This explains why it is necessary to shift the emphasis from instruction to problem solving when one prepares an ODL course. In this situation the learner must learn that it is possible to learn by themself and should be urged to prepare for their own learning process at the beginning of the course. In other words it is necessary to prepare to learn with the smallest possible amount of instruction regardless of the time or place.

Learning takes place not only within the formal established boundaries of the modern classroom, but can take place just as well beyond these established boundaries as is the case in informal and non formal learning.