Abstract
After completing this learning unit, you will be able to:

- Identify contemporary perspectives on teaching;
- Analyse pedagogical principles;
- Argue the need to adapt teaching to new generations.

Keywords
Efficient teaching · Pedagogical principles · Curricular adaptation

2.1 The Need to Adapt Teaching to Student Characteristics

Scientific literature emphasises that “the impact of the global shift towards information- and technology-driven economies and the digital revolution demanding unprecedented shifts in education and learning systems” (Griffin et al. 2018). From the most elementary levels, such as preschool education, there is a need to conceptualise education from the perspective of lifelong learning, continuing to higher levels (primary, secondary and tertiary).

The professional environment for which younger generations of today are prepared is much more competitive and mobile than in the past. Many professions disappear with daunting speed, under the pressure of new technologies, which take the place of previous production methods. Consequently, the competency profile of the contemporary graduate includes the ability to adapt to a world in an accelerated transformation.
The training competencies that define contemporary concerns are broadly outlined with the perspective “to know, to do, to be, and to live together” (Delors et al. 1996). In a narrower sense, although respecting global vision, transferable competences are required, identified as: digital literacy, problem-solving, critical and innovative thinking, inter-personal skills, intra-personal skills, and global citizenship (UNESCO 2015; Griffin et al. 2018).

This different perspective implies changes in the conceptualisation of teaching and learning, both as a process and as a result. Individual responsibility for social and professional development requires an open view of learning as an unending process, so that possession of skills such as information literacy becomes absolutely necessary, if not imperative.

The Association of College and Research Libraries defines information literacy as “a set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning” (Association of College and Research Libraries 2015).

Other features of contemporary society, such as the availability and abundance of information, outweigh the teacher’s ability to share them and the libraries to contain them. In this flood of information, there is some that is not the most accurate and appropriate for the subject of interest. In order to make informed choices and to intelligently inform oneself, the individual needs a high level of information literacy skills.

However, it is not always easy to pass on to young generations the need for caution in the choice of information, the critical evaluation of both the source and the information, the rigours of the use of information and, above all, the explanation and appropriation of the essence and rationale of being information literacy skilled. Today’s societal characteristics require education to build authentic learning contexts and connect social, economic and cultural realities that guide the student into acquiring skills.

We consider learning to be “any process that, in living organisms, leads to permanent changes in competency and is not only due to biological maturing or aging” (Illeris 2007, p. 3). We adhere to this definition precisely because of the open and wide vision that it proposes and that allows the inclusion of innovative contributions. The existentialist perspective on learning, presented in the works of Peter Jarvis and Robert Kegan, the vision of pragmatism (Yrjo Engestrom and Bente Elkjaer), the transformation learning theory (Jack Mezirow), the theory of multiple intelligences (Howard Gardner), the cultural and psychological approach (Jerome Bruner), and the social learning theory (Etienne Wenger, Lave Jean) are some examples of contemporary learning theories with wide applicability in several fields, not only limited to school learning, that influence how we define the contemporary learning process.

Constructivist and post-constructivist perspectives on learning put the transfer of knowledge and skills from teacher to student in a secondary place, emphasising the active role of the student in their own development of knowledge and skills. We are referring to a new perspective, which places learning as a process of co-
participation. The new vision of learning (Situated learning) has generated a large amount of research in social sciences, which explores the situational character of human understanding and communication (Popa 2013).

This research has as its primary concern the relationship between learning and the social situations in which it occurs. Recent specialty studies prove that cooperative learning is an important component of achieving school success (Eslamian et al. 2012; Nicolini 2009, 2011). Thus, learning is not an individual process, but a collaborative production. This change in the focus of researchers has interesting consequences, generating a wide range of interdisciplinary issues. In this perspective, the role of competences acquired through learning processes is highly productive and interactive, the individual acquiring competence through effective involvement in the learning process (Lave and Wenger 2003, p. 15).

The shift from an industrial to an information society has brought major changes in pedagogical conceptualisation. Thus, in contemporary society, didactic activities are rather determined by learners, it is preferable to vary activities, their development in small and heterogeneous groups, based on mutual support, learning rhythms being determined by learners. Productive learning and learning to problem-solve are the main focus, trying to integrate theory into practice and encourage the transfer of knowledge and skills from one discipline to another (Voogt and Pelgrum 2003).

In this context, educational relations are democratising, the teacher becomes an affective partner of the learner, guiding and not imposing the path and rhythm of the learners’ formation. Hence one of the postmodern school’s preoccupations is to make it attractive for students (Delors et al. 1996), prominently placed, in a professor’s contemporary skills profile, are skills and personality traits such as: definite and positive communication skills, creativity to incite learning, empathy and tolerance for cultural differences, intellectual, and adaptable, as well as moral uprightness, supported by an ethos, shared by all teachers, to responsibly promote a desire for perfection, and attitudes and values that are necessary for contemporary life.

The basis for the design, organisation and development of didactic activities is the normative values and didactic principles that support achievement of educational objectives. They have a general, systemic and dynamic character that ensures fulfillment of the functions of the education process (normative—prescriptive, orientation of the education process towards achieving objectives, regulating activity of the instruction—education process). Some specialists consider them minimal teaching standards, being placed at the base of teaching activity (Iucu 2001).

Although many classic pedagogical principles are still valid, we see a change of their significance and a practical revaluation due to relationships in the current educational field. Principles such as: the principle of the conscious and active participation of students in the learning activity; the principle of the orientation of the education process towards the harmonious development of the student; the systematisation and continuity principle; the applicability of knowledge; the
principle of socialisation; and the inverse connection principle are just a few of the most important that govern the didactic activity in order to achieve educational objectives and successful integration of the young generation into society.

It is worth remembering that non-compliance with one leads to diminishing the effects of others and to compromising the didactic act. Therefore, all these normative values have their roles and their well-established positions, being applied as a whole in every form of activity. They form a unitary system and provide a functional character to the education process and to didactic activity.

In contemporary pedagogical thinking, teaching should be related to a vision of learning as being an active, reflexive and conscientious student placed in a position to gather information and use it in different contexts, learning through action and reflection, by creating and solving problems, along with others. Thus, the teacher’s tasks acquire different dimensions, creating a context of socio-cognitive dissonance, moderating, and socially facilitating knowledge accumulation.

Teaching and evaluation relationships are indissoluble and mutually interdependent. The function of assessment is to orientate and regulate teaching and learning processes and therefore needs to be conceived in accordance with the two requirements and specifics mentioned above. Thus, evaluation is done not only at the end of the process (summative, final assessment) but also before it (initial assessment) and especially evaluation during teaching and learning (assessment over time, formative assessment).

Under these circumstances, the design, organisation and management of learning situations become essential issues for achieving efficiency in didactic activity. The roles of the ideal contemporary teacher, concerned with their own development and attainment of performance, include various complementary aspects as it can be seen in Fig. 2.1. Tasks of an effective teacher.

2.2 Didactic Design

Acquiring knowledge, abilities, and skills in the field of information enhances student opportunities to learn independently as they begin to look for more and more complex and varied sources of information, with the aim of expanding their level of knowledge, to analyse and formulate competent questions and to refine their own critical thinking, contributing to the development of competencies valued in contemporary society.

A natural concern, in the mind of each teacher, is related to didactic design; to build those learning situations that substantially influence high level acquisition of required skills. Despite the multitude and variety of existing research in the field of education, we cannot demonstrate the existence of a generally valid teaching model to ensure full success. As the teaching process is strongly dependent on societal characteristics, student characteristics, and information content, we can say that training strategies prove their effectiveness at a probabilistic level.
It is difficult to state the essential elements in creating learning situations relevant to students. Every constituent element (the psycho-social characteristics of teachers, educators, training time, location, scientific content, methods of teaching and learning, didactic means, forms of organising and training, teacher led, group, or individual, forms of evaluation: initial, continuous, and final evaluation) has its place, role and importance, with permanent in connecting relationships that ensure the success of a training session.

Scientific literature is not devoid of studies that seek to develop an explanatory theoretical framework of the characteristics of successful schools and teachers. Some specialists attempt to limit those essential characteristics to achieving effectiveness in teaching activity by using appropriate training strategies, appropriate classroom management strategies, and using an effective curriculum project (Marzano 2015).
Curricular design represents the anticipation and preparation of instructional and educational activities following the decision to implement a curricular vision. It has both a macro-structural dimension, aiming at attaining didactic competency through education goals assumed at the system and process level, as well as a micro-structural one, regarding the decisions that are made after choosing a certain method of organising the education process.

Macro-structural design is dependent on the policies of an education system and it is usually generated by higher-education ministries and accompanied by implementation recommendations. The micro-structural design has a school and teaching staff as implementing agents, detailing the didactic plan and harmonising education regulations at a system level with the specific educational reality generated by concrete socio-economic-cultural contexts.

The main resource that influences education design is teaching or learning time. Depending on this dimension, we have a first delineation between global design (learning cycle) and layout design (unit of learning or lesson). The teacher becomes responsible for the layout design, applying a procedural algorithm, whose graphic representation can be seen in Fig. 2.2. Steps in designing a course/seminar/teaching design.

Thus, the teacher builds operational objectives, in accordance with specific and general outcomes, selects information content according to the psychosocial characteristics of the group of students, taking into account their interests and concerns, not just the regulations of the school curricula.

The teacher should analyse availability of time, training environment features, teaching space limitations or opportunities, material resources that the education/school/academic unit has, as well as their own abilities to create or obtain necessary training resources.

The teacher develops, and creates strategies for (self)training and stimulating the target audience in order to provoke qualitative changes, in line with the proposed education objectives. He defines, at this planning stage, the types of learning experiences in which the trainees will be involved. He builds a methodological scale to support the approach and he develops assessment strategies that facilitate self-assessment opportunities and highlight the progress of students.

All these steps, as well as the curricular elements mentioned, must be harmonised to meet a single purpose, namely to achieve education objectives in an economical way, thus facilitating the acquisition of specific outcomes. It is also necessary to ensure the internal coherence of the structural elements of the learning context; the information and skills formed being associated with other similar information and skills in order to build the competencies concerned within a certain timeframe. Evaluation, as a real mechanism for feedback, should highlight the level of achievement of the proposed goals.

Any educational planning, being an anticipatory effort, benefits from support of implementation and evaluation processes, which allow for a return to the original plan and reconfiguration of short-term educational paths (a course/lesson, unit of learning/module). Thus, three essential elements are highlighted in educational design: *previous didactic activity*, which is subject to evaluation and to design
improvement measures; the *concrete context* at the time of designing, with all the resources and limitations as well as the *requirements required by education policies* both at the academic level and of a geographical region and nation, which must be harmonised with the specific concrete socio-economic and cultural didactic context.

An important element in education planning is the choice of didactic strategy. The concept, originally used in areas such as the military, sports, and politics, loses its combative meaning in pedagogy, although preserving its notion of “achieving the objective effectively by overcoming formally-based obstacles” (Panțuru et al. 2008, p. 168). Although some authors reduce educational strategy to a combination of didactic methods (Cristea 2000), it represents much more than that. Metaphorically speaking, it is “a blueprint for scaffolding learning” (Buehl 2017). Thus, didactic strategy is an ensemble of decisions on the selection of processes and

**Fig. 2.2** Steps in designing a course/seminar/teaching design
operations or procedures and methods, considered to be the most appropriate, aimed at achieving one or more predetermined objectives.

The constituent elements of the strategy are: forms of organising the teaching activity (teacher led, group, or individual); type of learning that is to be done, learning task, which may be common to all, some, or totally differentiated; and the manner of conducting the activity by the teaching staff is closely dependent on the skill that will be formed as well as the teaching methods and means. Training strategies have important roles in training optimisation, with decision-making, regulatory, normative, and evaluation functions. They have an open and dynamic character, varying according to the teaching-learning activity flow, characteristics that allow for differentiation from algorithms.

Construction of a training strategy is strongly dependent on a teacher’s pedagogical conception, on his professional skills and professional experience, training objectives of the training sequence, possibilities and characteristics of the trainers, training time, nature of the information content, type of learning that will be developed, and particularities of the physical environment in which the training takes place. Taking into account the impressive number of variables that influence the development of didactic strategies, we cannot establish accurate models to ensure an a priori efficiency. Scientific literature highlights the existence of a large number of didactic strategies, some outlined in typologies, more or less comprehensive but not exhaustive. We only emphasise some of the most well-known typologies.

According to logical thinking criteria (2005), there are:

- inductive strategies (learning from concrete to general, from intuitive to explanatory);
- deductive strategies (from general to specific, from hypothesis to observation);
- analogical strategies (knowledge is mediated by models);
- transductive strategies (explanation through metaphor); and
- mixed strategies (combinations of the above).

According to the criterion, degree of directing/non-directing of learning, there are:

- algorithmic/prescriptive strategies (with a high degree of a teacher directing the students’ learning activity, low level of stimulation of pupils’ creativity and originality):
  - reproductive;
  - expository explanatory;
  - explanatory-intuitive (demonstrative);
  - algorithmic;
  - scheduled.
• **non-algorithmic strategies** (active-participatory):
  
  – explanatory-investigatory (semi-directed discovery);
  – heuristic-conversative;
  – independent discovery;
  – problematised;
  – investigative observation;
  – experimental-inductive;
  – creative; and

• **mixed strategy**.

  In order to achieve efficiency in the educational act, it is necessary to have a good knowledge of existing strategies, combined with a level of teaching staff creativity that will allow the most appropriate particular educational approaches. Teaching strategies are not important or essential alone, but only a balanced combination with other structural elements of the learning context can build didactic performance.

**Evaluation**

1. **Analyse comparatively the concepts: strategy and algorithm**

| Strategy | Algorithm |
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2. **Discuss the percentage of prescription and creativity within a training strategy.**

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3. **Identify another typology of training strategies and argue for its didactic relevance.**

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4. Synthesise the best-known contemporary perspectives on teaching that you know in a comparative analysis table.

| Contemporary perspectives on teaching | The underlying learning theories | Specificity and peculiarities in the school field |
|--------------------------------------|---------------------------------|-----------------------------------------------|
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