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Constructing Educational Programs: Conceptual Foundations, Theoretical Underpinnings, and Procedural Models

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Abstract
This paper investigates the notion of the educational program, its theoretical bases, and the approach used in building it, relying on a systematic survey of pedagogical writings together with a comparative and critical reading of scholarly views. It argues that an educational program forms a unified system combining objectives, subject matter, teaching tools, and assessment procedures, one that rests on a set of interlocking philosophical, epistemological, psychological, social, political, and technological bases. It further shows that building such a program moves through three core stages — identifying needs and setting objectives, designing content, activities, and teaching aids, and finally assessing and revising the program — provided that these various bases remain integrated with one another and that programs stay anchored in national identity, the requirements of the labor market, and the demands of contemporary technology.

Keywords: Educational Programs, Instructional Design, Curriculum Foundations, Competencies, Educational Evaluation, Education.

1. Introduction

Within the wider educational system, the educational program holds a central place, serving as the practical vehicle through which the broad goals of education are converted into content and teaching units that can actually be delivered in the classroom. It is not simply a sequence of courses arranged in time; rather, it is a unified system of objectives, subject matter, activities, and evaluation tools, resting on philosophical, epistemological, psychological, social, political, and technological bases that work together toward the shared goals of the learner and of society.

This topic takes on added importance in Algeria, where the education system — the middle-school stage in particular — attempts to reconcile solid command of core academic subjects with the cultivation of life skills and vocational competencies. This is pursued through an educational philosophy built on the competency-based approach, one that safeguards the particularity of

national identity while remaining open to the requirements and technological changes of the present age.

The present paper sets out to address one central question: what exactly is meant by an educational program, which theoretical foundations inform its design and construction, and what methodological steps does the educational literature adopt in building it?

To answer this question, the study is organized around three main axes. The first establishes the linguistic and technical meaning of the term "educational program" through a survey of various pedagogical definitions. The second examines the foundations on which such programs should be built. The third sets out the most important models and procedural stages used in constructing an educational program. Throughout, the study follows a descriptive-analytical method based on reviewing the relevant educational literature and comparing and analyzing the views of specialists.

2. Educational Programs and Their Construction

In Algeria, the programs used at the middle-school level form a coherent pedagogical framework designed to give pupils a firm grounding in knowledge and skills before they move on to secondary and specialized education. Their design follows an educational vision that tries to balance solid academic command of core subjects — languages, mathematics, science, and the humanities — with the building of life skills and vocational competencies, on the basis of an educational philosophy that favors "learning for life" over memorization and recitation.

Within this framework, curricula are built on the competency-based approach, which ties theoretical knowledge to its practical uses through interactive learning activities that develop critical thinking, creativity, and teamwork. These curricula also contain components meant to reinforce national identity, such as Islamic and civic education, while staying open to the French and English languages and to world cultures — an educational policy that tries to reconcile local specificity with the demands of globalization.

These programs are not restricted to the cognitive dimension alone. They also extend to early career guidance, through sessions that introduce pupils to different occupational fields and pre-vocational workshops that help direct them toward educational paths matching their abilities and the needs of the labor market, alongside a growing focus on bringing technology into the classroom as part of the drive to digitize and modernize education.

Despite these efforts, obstacles still stand in the way of putting these programs into practice effectively, chief among them the ongoing need to update curricula, renew teacher training, and supply logistical resources to remote areas. Even so, the reforms currently under way reflect a genuine attempt to make middle-school education a key pillar in preparing a generation able to help build a society with balanced scientific and cultural awareness.

a) Educational Programs

In recent decades, human life has changed profoundly under the pressure of accelerating scientific and technological progress, a change that has touched every area of life, education being among the most affected. Education has clearly registered the impact of these scientific

advances and innovations through the ongoing evolution of programs, curricula, and instructional media, as part of a continual process of rebuilding and renewing the reality of education today in pursuit of broader and loftier aims.

One of the clearest signs of this development in education is the design of programs and curricula able to keep up with this remarkable technological progress, together with the renewal of instructional media through the incorporation of multiple intelligences into the teaching process — a marked departure from what previously prevailed.

b) The Concept of Educational Programs

The educational program stands as a central axis of the teaching process: it comprises organized knowledge, information, and teaching materials — the substance of plans made up of activities and instructional units that map out the path the learner follows toward the intended educational goals. Educational programs are designed to match the different stages of schooling — primary, middle, and secondary — according to need and the demands of study, and their design must satisfy specific foundations and standards that determine their quality and effectiveness.

Linguistically:

Linguistically, the word comes from the Arabic verb barmaja ("to program"), from which the noun barnamaj (plural baramij, "programs") is derived[1]. The term is used, for example, when a subject is arranged into an ordered scheme of sections so that it can be retrieved on demand, or when a computer is supplied with data and figures according to a set program[2]. On this basis, educational programs (al-baramij al-ta'limiyyah) are understood as the entry of such content into a computer by a known method, or its arrangement within a known plan[3].

Terminologically:

The educational literature offers a range of definitions of this concept. According to one definition, it is an instructional plan prepared for a single learner, a class, one educational institution, or several institutions together, whose implementation may extend over a single school day, a few days, a semester, a full year, or longer; such a plan brings together the steps, procedures, lessons, and activities that learners are meant to receive and master, inside or outside the classroom, over a given period — which is why one can speak of a program for Islamic education, another for Arabic, another for science, another for mathematics, and so on, all within the same school curriculum[4].

The Educational Dictionary describes it as a general plan prepared in advance of instruction, for a given educational stage, that summarizes the subjects the school has organized over a set period — whether a month or a year — and includes the learning experiences learners are expected to acquire, sequenced in line with their stage of growth and their particular needs[5]. This covers the program in its general sense; in its more specific sense, the educational program denotes a set of instructional materials — which might take the form of curricula, or a body of texts and readings assigned to pupils together with instructional media and varied activities — usually covered over a set period, part of it studied at school and part independently at home[6]. It follows from this that educational programs are carefully designed plans made up of instructional

materials meant to guide both the learning process and the learners themselves, and that they encompass a varied set of activities that differ according to the stage of schooling.

In educational-research writing, the program has been described as the totality of pedagogical experiences organized in an integrated way within a given subject, experiences that embody the subject's underlying philosophy and that include its objectives and the general content framework made up of instructional units, together with proposed modifications and an account of how the program is to be built[7]. Understood this way, the program is a process of organizing and arranging pedagogical experiences within the subject in an integrated fashion, one that embodies the subject's philosophy, spells out instructional objectives, and lays out the general content framework composed of several instructional units.

Al-Samarrai, for his part, describes it as an integrated system bringing together knowledge, intellectual skills, operations, guided experiences, and methodological tools suited to achieving the aims of the educational process[8], functioning at the level of instructional integration in service of the intended pedagogical goal.

Haidar Ja'far Mousa defines it as the process of identifying and selecting the situations and environmental factors that prompt the learner to interact with them in some way, so as to bring about the intended changes in the learner's behavior[9]. Here the educational program is tied to the instructional environment the learner inhabits, an environment that in turn shapes how the program is designed.

The Dictionary of Educational and Psychological Terms offers a further definition, describing it as a set of organized, interconnected activities pursuing specific objectives according to a project plan, aimed at developing particular skills, or as a series of courses linked together by an overarching goal or final outcome[10].

Seen from a planning perspective, the program has been defined as a set of strategies, activities, experiences, and academic knowledge that are planned and organized to carry out the educational process as effectively as possible[11], or, alternatively, as an organized plan covering a set of topics, activities, and tasks aimed at acquiring knowledge and developing skills within a specified time frame[12].

Taking these views together, a comprehensive definition emerges: the educational program is an organized procedure within instructional content, made up of a set of learning experiences offered to a particular group of learners in order to achieve specific instructional objectives within a defined time frame[13]. What all of these definitions share, despite their differences, is an emphasis on careful planning: the program is, at bottom, an organized process aimed at achieving precisely defined objectives through carefully controlled plans.

Awatef Nasser Al-Mousawi considers it a system of instructional content in which information, knowledge, skills, experiences, activities, and teaching strategies are organized and directed toward developing learners' scientific thinking and skills, with the aim of raising their level of achievement and their ability to solve problems[14].

With specific reference to the teaching process, a precise definition of the term can be adopted: the educational program is a sequence of successive instructional units that together form a teaching system with defined objectives, content, instructional means, and evaluation methods, relating to the teaching of particular subjects[15].

Taken together, educational programs aim to achieve specific instructional objectives and to equip learners with the knowledge and skills needed to obtain a degree or certificate that reflects their command of the subjects studied. In this way they play a decisive role in developing learners' knowledge and skills, sharpening their capacity for purposeful observation, and strengthening their ability to comprehend, analyze knowledge, plan, solve problems, and interpret scientific phenomena and events.

3. The Foundations of Constructing Educational Programs

The foundations underlying the construction of educational programs form a multidimensional frame of reference aimed at bringing together the needs of the individual, the needs of society, and the demands of the age, starting from philosophical foundations and a range of frames of reference. Such programs need to be built on essential pillars: keeping pace with scientific and technical developments so as to cultivate future-oriented skills such as digital analysis and critical thinking; responding to economic needs by tying programs and curricula to emerging employment sectors; drawing on cultural identity by incorporating local heritage and values; and maintaining a commitment to ethics that ensures a responsible form of development upholding social justice and respect for diversity.

The human dimension, too, has its place in this construction, linking education to global challenges such as climate change while retaining the flexibility needed to keep pace with rapid change. Educational programs thereby become a bridge between innovation and the preservation of values, between local specificity and openness to the world, preparing individuals to help build sustainable, balanced societies. The most important of these foundations are set out below:

1) Philosophical Foundations

Educational institutions serve their societies by shaping instructional programs and methods in the light of both educational and social philosophy together, since the philosophy of a society supplies the principles, aims, and beliefs that guide people's activity and set the values governing their conduct in life. It is in light of this philosophy that the main philosophical principles underlying education are determined, namely:

- Education is a way of applying and demonstrating what the learner learns in life, rather than an exercise in memorization and recitation.
- Educational philosophy must be consistent with social philosophy.
- Educational programs must be shaped by society's educational philosophy.
- The preparation of educational programs draws on the fullness of human knowledge and wisdom.[16]

Educational philosophy, understood this way, is not an abstract theoretical exercise but a frame of reference that determines the aims and values to be instilled in learners and how closely these

correspond to the surrounding social, cultural, and economic context. An institution whose philosophy rests on humanistic pedagogy, privileging justice and solidarity, will tend to build programs that cultivate dialogue and acceptance of difference and that connect curricula to issues such as poverty and migration. One that instead adopts a developmental pedagogy oriented toward building a knowledge economy will design its programs to encourage technical innovation and entrepreneurship in partnership with productive sectors. Educational philosophy thus mirrors a society's priorities and its vision of its own future: choosing either orientation, or some combination of the two, is never a neutral decision but a fundamental choice about the role education plays in shaping human beings — whether as a means of liberation from inequality or as a mechanism for turning people into human capital within the global economy. The effectiveness of this construction depends on educational philosophy's ability to balance the cultivation of an enlightened individual selfhood with the pursuit of the collective good, without losing sight of the need for dialogue between authentic values and currents of change that cross borders.

2) Epistemological Foundations

Knowledge is one of the most important pillars supporting the educational program. It consists of the body of knowledge, information, foundations, and principles on which the content of the teaching and learning program is based, together with the sequence of facts and laws organized within it, for the purpose of educating students. Knowledge of this kind comes in several essential varieties that must be assessed against criteria such as: its connection to learners' social and economic needs; its contribution to the advancement of knowledge generally; whether it is presented in a way that connects coherently to what came before it; and whether the epistemological foundations include a functional dimension along with its applications[17].

Program content is thus designed as an integrated system of knowledge, principles, laws, and facts, organized methodically in the service of learning objectives — a task that calls for close attention to the types of knowledge involved and to the foundations governing its construction, according to precise criteria that cover knowledge in both its theoretical and applied dimensions.

3) Psychological Foundations

Psychological foundations revolve around two main axes: the characteristics of learners and the requirements of their growth and needs, and the process of learning itself along with the factors that shape it. This implies that curricula — in their planning, construction, implementation, and evaluation — must be grounded in principles of growth and theories of learning that fit the individual's biological and psychological traits and the requirements of his or her development at each stage, in keeping with how that individual actually learns[18]. Other psychological notions also bear on curriculum design, among them learners' readiness and capacity for learning, and their need to acquire the particular knowledge and skills suited to their age and educational stage.

4) Social Foundations

Preserving identity calls for including subject matter that reflects local cultural heritage, language, and the arts, so as to strengthen national belonging and respect for cultural diversity

within society — for instance through attention to minority history or the blending of rural and urban cultures — as well as confronting cultural challenges connected to globalization and identity. All of this falls under the social foundations, which concern the needs of society and its members and their development in the economic, scientific, and technical domains, together with society's culture and its moral, national, and human values[19]. In the interest of preserving national identity, the Arabic-language program, for example, necessarily includes literary texts commemorating the Algerian revolution, the geography program highlights the country's landmarks, and the history program introduces its leading historical figures, and so on.

Designing educational programs able to preserve national identity and strengthen the different expressions of communal belonging depends on weaving cultural heritage, language, and the arts into curricula — such as revolutionary literary texts in the Algerian case — respecting internal cultural diversity, including the history of minorities and of rural and urban culture, confronting the cultural challenges posed by globalization or identity-based conflict, and connecting education to society's economic, scientific, and moral needs.

Identity, however, is not a static inheritance but an ongoing process of construction that educational institutions help sustain; including texts on the Algerian revolution, for instance, is not simply about commemorating the past but about shaping a national narrative that brings new generations together around the values of liberation and sacrifice. Preserving identity while also meeting society's changing economic, scientific, and technical needs has become essential given the challenges the world faces around identity, religion, and homeland, since a strong identity is considered a foundation for building a cohesive society capable of innovation.

Take Arabic-language teaching as an example: including texts on the Algerian revolution is not simply about teaching history but about tying the language to the identity of its speakers, turning it into a tool for reinforcing national values such as resistance to colonialism and solidarity. In the same way, emphasizing Algeria's landmarks and historical figures helps reshape people's awareness of place and strengthens their sense of belonging to the land, both as a physical territory and as a symbol.

At the same time, an excessive emphasis on national identity, if not balanced by room for dialogue and critique, risks producing generations less open to intellectual pluralism — which raises a legitimate question about how heritage education can be reconciled with keeping up with modern science. An emphasis on identity can become an obstacle unless it is paired with curricula that equip learners with twenty-first-century skills such as artificial intelligence and entrepreneurship.

- ✓ For this vision to succeed, it needs to bring together several essential elements:
- ✓ preserving heritage through subject matter that reflects identity;
- ✓ representing all segments of society without exclusion;
- ✓ teaching students to examine identity critically, as a dynamic construct that interacts with the world; and

- ✓ linking identity to scientific and technical progress, so that it becomes a spur to creativity rather than an obstacle.

5) Political Foundations

Politics touches every sphere of life, education included. Public educational policy has been described as the principles, aims, curricula, methods, and means that the state sets out in a national plan or program for the education system over a given period[20], or, put differently, as a national program for developing and managing the educational process according to principles, aims, curricula, and means fixed by law. Others define it as the set of aims, principles, and orientations on which education in a given society rests, together with the determination of its general framework and its various systems — the overall arrangement the state establishes for running educational affairs through its technical and administrative apparatus, following whatever foundations, rules, and regulations it judges suitable[21]. Formulating educational policy is thus a complex organizational and political process aimed at building a general framework of policies, procedures, and regulations that govern how the education system functions, in order to achieve specific objectives or meet the challenges it faces, in line with the state's vision and strategic goals over a given period and within particular political, social, and economic contexts.

This process blends precise administrative planning with political considerations, striking a balance between educational priorities such as quality and comprehensiveness of provision, and political requirements such as the state's general orientations and social pressures, all while ensuring that implementation mechanisms are workable and assessable given the surrounding circumstances. This is, in fact, the crux of the matter: designing educational programs must take account of the country's political foundations.

6) Technological Foundations

Technology has become one of the defining features of our age. The technological foundation refers to extending technology across all the constituent elements of the educational program, starting with defining its objectives and choosing its epistemic components and required learning experiences — in other words, using technology in every dimension of the educational process, from teaching operations through to evaluation, so that these programs produce an integrated instructional design capable of achieving its objectives[22]. In practice, this means technology becomes an essential component of every element of the educational system, from the formulation of objectives, through the selection of epistemic content and the construction of learning experiences and teaching methods, to the mechanisms of evaluation.

Technology here functions not merely as a supporting tool but as a methodological framework that reshapes the educational process itself, making it more dynamic and better suited to the demands of the digital age. Artificial-intelligence techniques, for instance, make it possible to analyze learner data in order to set personalized learning objectives; interactive platforms help deliver content adapted to different learning styles — visual, auditory, and kinesthetic; and intelligent assessment systems allow skills to be measured in real time through simulations or educational games.

This thoroughgoing integration of technology turns the educational program into an integrated system that boosts engagement and deepens understanding by tying abstract concepts to their real-world applications — as with the use of virtual reality and remote-presence technology in university teaching, which became especially visible during the COVID-19 pandemic, and the wider adoption of digital learning platforms — all aimed at achieving instructional objectives without leaving out any human or epistemic component.

4. Constructing Educational Programs

Today's world urgently needs to apply scientific thinking and methodological and technical approaches to the design of educational programs, in order to achieve better education and a more efficient, effective service matched to learners' abilities and characteristics across the different educational levels. Instructional design has become a discipline in its own right, emerging toward the end of the twentieth century within the field of education; its underlying concept evolved under the influence of research findings from both behaviorist and cognitivist schools of thought and of advances in educational technology, particularly the emergence of programmed instruction and artificial intelligence, both of which have had the greatest impact on the rise of the various models of instructional design.

Instructional design has taken on considerable importance because it helps produce educational programs that are directly tied to the aims and activities of classroom teaching, assisting teachers in thinking in an organized way and planning rigorously, and thereby determining instructional objectives, teaching methods, pedagogical activities, and evaluation methods more effectively.

In this sense, education is the deliberate design of instructional situations that lead pupils toward learning, learning being understood as a gradual change in pupils' behavior brought about by their exposure to these situations, a change that grows their knowledge and skills. The learning process calls for instructional materials suited to pupils' readiness, needs, and abilities, so as to help them reach the intended objectives — which is exactly what the science of instructional design sets out to achieve.

The program is designed to guarantee a logical sequence and a graduated progression in learning concepts and skills, and it may include lectures, interactive activities, applied exercises, and assessments that gauge learner progress; its overall design aims at the highest possible levels of learning, understanding, and mastery of the subjects studied.

Erickson and Geulach (1972) identified three phases in constructing the program: an analysis phase, involving the determination of instructional objectives and the analysis and organization of content; a synthesis phase, involving instructional activities, instructional tools and aids, and the design of instructional strategies; and an evaluation phase[23].

Abdel-Qader Narjes Hamdi developed a systems-approach model of instructional design intended to give a general overview of the elements making up the educational program. This approach is used in designing, developing, and implementing instruction, drawing on specific design principles aimed at improving the learning process and comprehension of materials, moving from the initial definition stage through to evaluation[24].

The design of programs varies with the specific instructional objectives at stake; it may take the form of a small instructional unit aimed at a single objective, or a small number of objectives, that the learner can achieve, along with the associated skills, within the time available for the class session, or in more or less time as required.

A model of the elements making up the teaching-learning program can help illustrate the balance among these elements, since their effective integration contributes to building an instructional program that is precisely effective within the educational process and makes it easier to achieve and evaluate instructional objectives[25].

Commentary on the Model:

Clearly, any educational program needs to rest on four interrelated core elements: clear objectives that specify the intended learning outcomes; interactive instructional experiences, such as projects and discussions, that build skills; organized content that presents information in a graduated, flexible way; and continuous feedback that tracks progress and guides the learner. These elements work together: content and experiences are designed to achieve the objectives, while feedback helps improve the program based on learner performance, which in turn makes the educational process more effective and more comprehensive.

- ✓ Kemp identified a set of questions to be considered when building competency-based educational programs[26]:
- ✓ What outcomes must the teacher achieve in order to perform his or her role as well as possible?
- ✓ How can the learner reach these outcomes?
- ✓ How can it be confirmed that learners have in fact reached them?
- ✓ Here again, program levels differ in their design according to the specific instructional objectives involved, with design typically starting from a small instructional unit focused on one objective, or a small number of objectives, that the learner can achieve within the time set aside for the class session.

A. Farouk Al-Farra agreed with Kemp on the basic steps for constructing a competency-based educational program:

B. selecting the instructional objectives;

C. selecting the program's content;

D. selecting the instructional activities;

E. selecting the appropriate pedagogical techniques;

F. selecting the evaluation procedures.[27]

G. The convergence between Al-Farra and Kemp shows that competency-based design depends fundamentally on precisely selecting content and deploying appropriate instructional means, all in order to reach the desired objectives and put in place specific evaluation procedures.

Khalil Abdul-Rahman Al-Ma'aytah and Nouri Mustafa Al-Qamash outline the steps for building the educational program as follows:

A. determining the objectives to be achieved;
B. breaking these objectives down into a clear, specific form;
C. deriving the instructional units needed to achieve them;
D. selecting teachers, learners, and instructional means for each stage;
E. assessing the yield produced at each instructional stage and measuring the degree of success once it is complete;
F. monitoring the results obtained.[28]

This step-by-step organization reflects rigorous planning intended to regulate the process of program design and keep its construction under control.

- ✓ Mu'ayyad Al-Salem, by contrast, sets out the steps for building the program in three phases:
- ✓ determining training needs;
- ✓ an implementation phase made up of three interrelated aspects — designing the training program, managing it, and determining the methods used in training;
- ✓ an evaluation phase.[29]

Marked by its concision and coherence, this model highlights how straightforward the process of program construction can be, particularly at the design and implementation stages.

- ✓ In 2011, Michel Biron likewise addressed several important aspects of preparing a program, centered on:
- ✓ analyzing needs and trainees' expectations;
- ✓ determining objectives and formulating them procedurally;
- ✓ establishing the training plan;
- ✓ drafting the program;
- ✓ selecting the strategies and techniques for implementing it;
- ✓ preparing documentation and activity materials;
- ✓ providing the necessary equipment;
- ✓ preparing evaluation instruments;
- ✓ submitting a technical report to keep officials informed of the program's progress and its impact on the training process.[30]

As the design develops further, the program comes to encompass a series of successive units covering the entire subject matter, with the learner progressing through study in a defined sequence and moving to the next unit only after mastering the objectives of the one before it. In this way, the learner keeps acquiring the concepts and skills tied to the various units until all the objectives have been fully achieved.

Education and society are bound together by a close, mutual relationship: the systems, values, and cultures of societies are reflected in the elements of the educational process, and education in turn seeks to bring about the intended changes in learners' conduct. It thus serves as a gateway to cultural and intellectual identity, a means of regulating individuals' behavior and lives, and an important vehicle for passing culture from one generation to the next — in short, both the

aspiration of societies and their instrument of change across every domain[31]. On this basis, societies that prize innovation give priority to technological education, while more conservative societies focus on preserving heritage through their curricula, making education a mirror that reflects the particular character of each society.

6. Conclusion

This study has shown that educational programs form the backbone of the educational process, serving as the operational system through which the broad aims of education are converted into content, activities, and evaluation methods that can actually be implemented in the classroom. The conceptual analysis undertaken here has shown that, despite the variety of ways researchers formulate it, the term "educational program" converges on one basic idea: the rigorous organization of instructional experiences in order to achieve specific objectives for a particular category of learners, within a controlled period of time.

The study has also shown that building an educational program cannot rely on improvisation; it must instead be grounded in an integrated set of foundations — philosophical, epistemological, psychological, social, political, and technological — and that neglecting any one of them, or upsetting the balance among them, weakens the program's effectiveness and its ability to reach its aims. The procedural models reviewed here — from Erickson and Geulach's model to those of Kemp, Al-Farra, Al-Ma'aytah and Al-Qamash, Al-Salem, and Biron — likewise show that, whatever differences exist in terminology and apparent stages, the process of constructing an educational program converges at its core on three major steps: analyzing needs and setting objectives, designing content, activities, and instructional means, and evaluating and revising the program.

The research concludes that the success of any educational reform — the middle-school stage in Algeria very much included — hinges on the ability of those responsible for program design to strike a balance between the requirements of national identity and the imperative of openness to the world, between cognitive mastery and the development of life and vocational competencies, and between the deployment of technology and the preservation of the human dimension of the educational process.

7. Recommendations

In light of these findings, several recommendations can be put forward, the most important of which are:

1. ensuring that the philosophical, epistemological, psychological, social, political, and technological foundations are all integrated in designing any educational program, rather than emphasizing some at the expense of others;
2. adopting clear procedural models — needs analysis, objective-setting, content and activity design, evaluation and revision — in building curricula across the different educational stages;
3. intensifying and regularly updating teacher training so that teachers can keep pace with developments in program design and implementation;

4. strengthening the presence of national and cultural identity in program content, while leaving room for dialogue and critique so as to avoid intellectual insularity;
5. integrating modern technology, especially artificial-intelligence tools and interactive platforms, into the design, implementation, and evaluation of educational programs;
6. linking educational programs to labor-market needs and to early vocational guidance, in keeping with the principle of "education for life";
7. carrying out periodic, ongoing evaluation of programs already in use, drawing on feedback from teachers, learners, and parents, with a view to their continued development;
8. providing the logistical and technical resources needed, especially in remote areas, so as to guarantee equal opportunity in implementing educational programs; and
9. encouraging scientific research into instructional design and intensifying field studies that measure the impact of implemented programs on learners' achievement and skills.

References

[1]Al-Ma'ani Comprehensive Dictionary (Mu'jam al-Ma'ani al-Jami'), accessed 20 March 2026, https://www.almaany.com/ar/dict/ar-ar/
[2]Ibid.
[3]Abdul-Ghani Abul-Azm, Mu'jam al-Ghani [Al-Ghani Dictionary], vol. 1 (Al-Ghani Publishing Foundation, 2013), p 4591.
[4]Kawthar Husni Kojak, Taqyim Ta'allum al-Talib al-Tajmi'i wal-Takwini [Summative and Formative Assessment of Student Learning] (Cairo: International Center for Translation and Publishing, 1983),p 7 .
[5]Farida Chenane and Mustapha Hadjeressi, Al-Mu'jam al-Tarbawi [The Educational Dictionary] (Algeria: Saïda Regional Branch, 2009), p108 .
[6]Ibid., p 109.
[7]Al-Sa'id Sa'd Mohamed, Bina' Barnamaj fi al-Tarbiya al-Bi'iyya li-Talib al-Madrasa al-Thanawiyya al-Zira'iyya [Constructing a Program in Environmental Education for the Agricultural Secondary-School Student] (PhD diss., Ain Shams University, College of Education, Egypt), p 23.
[8]Al-Samarrai Mahdi Saleh et al., Ma'ayir Tatwir al-Manahij al-Dirasiyya fi Jami'at Baghdad [Standards for Curriculum Development at the University of Baghdad] (Center for Educational and Psychological Research, University of Baghdad, 1988), p 13 [in Arabic].
[9]Haidar Ja'far Mousa, "Nazra Tahsibiyya li-Istikhdam al-Haqa'ib al-Ta'allumiyya wal-Tadrisiyya fi al-Ta'lim al-Tiqani wal-Mihani" [A Prospective View on the Use of Learning and Teaching Packages in Technical and Vocational Education], Arab Journal of Technical Education, no. 2 (Baghdad, 1992): p 35 .
[10]Shehata Hassan and Zeinab Al-Najjar, Mu'jam al-Mustalahat al-Tarbawiyya wal-Nafsiyya [Dictionary of Educational and Psychological Terms] (Cairo: Al-Dar Al-Masriya Al-Lubnaniya, 2003), p 74 .

[11]Sa'di Jassim Atiyah Al-Ghariri, Athar Barnamaj Istratijiyyat Mu'alajat al-Ma'lumat fi al-Tahsil al-Dirasi wa-Intiqal Athar al-Tadrib li-Talabat Kulliyyat al-Mu'allimin bi-Hasab Mustawa Dhaka'ihim [The Effect of an Information-Processing Strategies Program on Academic Achievement and Training Transfer among Teachers' College Students according to Intelligence Level] (PhD diss., Ibn Rushd College of Education, University of Baghdad, 2003), p 18 .

[12]Al-Hussein Abdul-Mohsen, Tatwir al-Baramij al-Ta'limiyya [Developing Educational Programs], 3rd ed. (Damascus: Dar Al-Rida Publishing, 2007), p 16 .

[13]Nawaf Ahmad Samara and Abdul-Salam Mousa Al-Adabli, Mafahim wa-Mustalahat fi al-'Ulum al-Tarbawiyya [Concepts and Terms in the Educational Sciences] (Amman: Dar Al-Masirah, 2008), p 48 .

[14]Awatef Nasser Al-Mousawi, Bina' Barnamaj Ta'limi Ta'allumi lil-Tafkir wa-Qiyas Athrihi fi al-Tahsil bi-Maddat al-Fizya' wal-Qudra 'ala Hall al-Mushkilat [Constructing a Teaching-Learning Program for Thinking and Measuring Its Impact on Physics Achievement and Problem-Solving Ability] (PhD diss., Ibn Al-Haytham College of Education, University of Baghdad, 2005), p 17 .

[15]Yusuf Sa'id Mahmoud Al-Masri, Fa'aliyyat Barnamaj bil-Wasa'il al-Muta'addida fi Tanmiyat Maharat al-Ta'bir al-Kitabi wal-Ihtifaz biha lada Tullab al-Saff al-Thamin al-Asasi [The Effectiveness of a Multimedia Program in Developing and Retaining Written Expression Skills among Eighth-Grade Students] (Master's thesis, Islamic University, College of Education, Gaza, Palestine, 2006),p 54 .

[16]Hiyam Mahdi Jawad Al-Kazemi, Bina' Barnamaj Ta'limi Ta'allumi Wifqan lil-Istratijiyyat al-Ma'rifiyya li-Ta'allum Talibat al-Saff al-Awwal al-Mutawassit wa-Athruhu fi al-Fahm al-Marin wa-Tahsilihinna fi al-Riyadiyyat [Constructing a Teaching-Learning Program Based on Cognitive Strategies for First-Year Middle-School Female Students and Its Effect on Flexible Understanding and Mathematics Achievement] (PhD diss., College of Education for Pure Sciences, University of Baghdad, 2018),p 25–26 .

[17]Ibid., p 24.

[18]Fayza Boutera Bay Barnawi, "Al-Manahij al-Ta'limiyya: Ta'rifuha, Ahdafuha, Ususuha, Mukawwinatuha, Taqwimuha" [Curricula: Their Definition, Aims, Foundations, Components, and Evaluation], Al-Chamel Journal of Educational and Social Sciences, no. 1 (June 2021), University of El Oued, Algeria: p 233 .

[19]Mohamed El-Sayed Ali, Ittijahat wa-Tatbiqat Haditha fi al-Manahij wa-Turuq al-Tadris [Recent Trends and Applications in Curricula and Teaching Methods] (Amman: Dar Al-Masirah Publishing & Distribution, 2011), p 22 .

[20]Mohsen Mahmoud Ayasra, Nuzum wa-Siyasat al-Ta'lim [Education Systems and Policies] (Bahrain: Dar Wael Publishing, 2011), p 46–47 .

[21]Ibid.,p 49.

[22]Hiyam Mahdi Jawad Al-Kazemi, op. cit.,p 25–26.

[23]Erickson G. & Geulach D. (1972), Fundamentals of Teaching with Audiovisual Technology, Macmillan Publishing Co., New York, p 214.
[24]Abdel-Qader, Narjes Hamdi, "Tatwir wa-Taqwim Namudhaj Tadrisi fi Tasmim al-Taqaniyyat al-Ta'limiyya Wifqa Manha al-Nuzum" [Developing and Evaluating an Instructional Model in Instructional-Technology Design According to the Systems Approach], Dirasat Journal, vol. 26, no. 1 (1999): p 71.
[25]Abdel-Bari Al-Durra et al., Al-Haqa'ib al-Tadribiyya [Training Packages], 1st ed. (Beirut: Al-Dar Al-Arabiya lil-Mawsu'at, 1988), p 63 [in Arabic].
[26]Jerrold Kemp, Tasmim al-Baramij al-Ta'limiyya [Instructional Program Design], trans. Ahmad Khairy Kazem (Cairo: Dar Al-Nahda Al-Arabiya, 1990), 19 [Arabic translation].
[27]Farouk Al-Farra, "Ittijahat al-Kifayat wal-Dawr al-Mustaqbali lil-Mu'allim fi al-Watan al-Arabi" [Trends in Competencies and the Future Role of the Teacher in the Arab World], Risalat Al-Khaleej Al-Arabi Journal, no. 14 (Saudi Arabia, 1984):p 295 .
[28]Khalil Abdul-Rahman Al-Ma'aytah and Nouri Mustafa Al-Qamash, Asasiyyat al-Ta'hil al-Mihani wal-Ri'aya li-Dhawi al-Ihtiyajat al-Khassa [Fundamentals of Vocational Rehabilitation and Care for Persons with Special Needs] (Jordan: Dar Al-Thaqafa Publishing & Distribution, 2012), p 233 .
[29]Mu'ayyad Sa'id Al-Salem, Idarat al-Mawarid al-Bashariyya: Madkhal Istratiji [Human Resource Management: A Strategic Approach], 2nd ed. (Jordan: Ithraa Publishing & Distribution, 2014), p 277 .
[30]Michel B. (2011), Formation de formateurs, document élaboré lors du séminaire en ingénierie de la formation, Cavilan – Organisation internationale de la Francophonie,p 10.
[31]Mas'ouda Slimani and Jamila Rajah, "Al-'Alaqa al-Mutabadala bayn al-Ta'lim wal-Mujtama'" [The Reciprocal Relationship between Education and Society], Algerian Journal of Translation and Languages, vol. 5, no. 1 (2023): p 522 .