Designing a Curriculum Model for Adult Literacy

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Purpose: The current research was conducted with the aim of designing a curriculum model for adult literacy.

Methodology: In terms of purpose, this research is fundamental-applied, and regarding data type, it is qualitative. The population in the study included experts from the organization (literacy movement managers, deputy ministers of curriculum education) and academia (university faculty members), as well as 30 relevant scientific documents and records. In this research, purposive sampling was used to determine the samples, considering 20 individuals based on the saturation principle as the sample size. Semi-structured interviews were utilized in the qualitative part of the current study. To ensure the validity of the tool in the qualitative section of the research and to ensure the accuracy of the findings from the researcher's perspective, opinions from professors familiar with this field and academic experts who were knowledgeable and skilled in this area were sought. In the current study, test-retest reliability and intra-subject consensus method were used to calculate the reliability of the interviews conducted. The data analysis method in the qualitative section was theoretical coding. Therefore, the analysis of data obtained from interviews and documents was carried out in three stages: open coding, axial coding, and selective coding, and based on this, the concepts and categories of the research were classified.

Findings: The results of the research showed that the objectives of the adult literacy curriculum include adaptability to the environment and strategic competencies. Also, the content of the adult literacy curriculum includes content selection and content organization. Teaching and learning methods in this research include the transmission method and the activity-based method. Finally, the results showed that the evaluation method of the adult literacy curriculum includes goal-based evaluation, method-based evaluation, and content-based evaluation.

Conclusion: Each theme and its subthemes underscore the comprehensive approach required to design an effective adult literacy curriculum. The curriculum must be adaptive, strategically competent, well-organized in content, employ effective teaching and learning methods, and incorporate multifaceted evaluation strategies to meet adult learners' diverse needs and promote sustainable literacy education.

Keywords: Objectives, Content, Teaching Methods, Evaluation Style, Curriculum.

1.   Introduction

In no country will desirable development occur unless educational issues such as learning science, knowledge, and education continue to the highest levels of study. Illiteracy and the lack of learning science and knowledge inflict irreparable damage on the scientific, industrial, economic, and cultural foundations of society, and an illiterate person, due to being unaware of the essential issues of their society, always faces numerous problems and challenges, falling behind the status and dignity they should have in society. Learning science and being on the path of knowledge and awareness gives a person a lofty status and leads them to the pinnacle of humanity (Barghi, 2019).

In this context, adult literacy education is an effective step towards escaping the cycle of poverty and increasing social justice, mental, and social health that occurs through literacy education (Wu, 2020). Literacy planning is built on the notion that illiterate adults become literate, a concept clearly stated in the extensive literature on adult literacy education. Adult education is a political, social, and cultural phenomenon (Barakat, 2016). Over the past decade, significant changes have occurred in adult education policies and continuing education in many countries around the world (Kepp, 2023). In Iran, the literacy movement is among the lasting legacies of Imam Khomeini, the leader of the Revolution. A legacy that has remained steadfast in the noise of the modern world and is being pursued with diligence. The literacy movement has made the education, expansion, and spread of culture and literacy among illiterate and semi-literate adults its main objective. What is referred to in the literacy movement is that literacy is a set of abilities and capabilities that help an individual confidently face and properly solve their personal, familial, and social issues. That is, the scientific method first recognizes the problem, then gathers information about it, proposes solutions, tests those solutions, and ultimately arrives at a new finding. In the scientific method, the aim is to be able to establish constructive and effective communication with others, including family members, the surrounding environment, or those with whom one interacts administratively, and even to connect with nature and the environment. Anything related to their surrounding ecosystem, they should be able to establish constructive communication with (Sharifãn et al., 2019).

In the conducted research, Sanusi and colleagues (2021) showed that radio education, based on a general education program, affects adult literacy. Akintolu and colleagues (2021) also demonstrated that adult literacy, based on specific goal setting and providing the necessary content, leads to the assurance of sustainable development (Akintolu & Uleanya, 2021). Rashid (2020) stated in a study that factors such as public policy governing the curriculum, the theoretical foundations required by adults, the opinions of different stakeholders, and the evaluation of the impact and sustainability of programs should be considered in the national education program (Rashid, 2020). Additionally, in recent years, many institutions worldwide have changed their approach to the curriculum and have paid more attention to the design and content of the curriculum (Abedini Alavi et al., 2021; Adibmanesh, 2022). Despite all efforts made to enrich the adult literacy curriculum, it still faces obstacles. Firstly, the necessary educational support for adult learners does not occur, and the objectives of the consolidation phase seem to have only a demonstrative aspect, not operational and executive. On the other hand, based on criticisms of the adult literacy curriculum, it can be understood that the number of lessons and the volume of books are too much for adult learners, which prevents comprehensive content transfer and does not create the necessary motivation for them to continue their education. Moreover, in the adult literacy curriculum, little attention has been paid to subcultures, ethnicities, and cultural sensitivities in the content, and the religious values of other religions have not been examined. On the other hand, in general, adult education programs that provide an opportunity for adult education with rehabilitation and labor services from areas of interest should be in line with individual goals, strategies, and organizational objectives. However, what is observed is that the professional field of learners is not considered, and education is solely based on reading and writing. In fact, education for adults should be within a broader framework than just literacy learning and should consider the diversity of the learner's needs. Based on this, the current research aims to examine the adult literacy curriculum by presenting a comprehensive model, identifying all the important factors of this model, proposing mechanisms for improving this curriculum, and answering the fundamental question of what model can be designed for the adult literacy curriculum?

2.   Methods and Materials

2.1.   Study Design and Participants

This study is fundamental-applied in its objectives. From a data perspective, it is qualitative, paying attention to

experts in the field and examining the identification of the needs and objectives of the adult literacy curriculum. The method of implementation involved theoretical coding. The study population included organizational experts (literacy movement managers, deputy ministers of curriculum education) and academics (university faculty members), as well as 30 relevant scientific documents and dissertations. The criteria for selecting experts for data collection were having at least a doctoral degree and holding an executive and educational job in the field of adult literacy, having played a role in the decision-making levels of the literacy movement, both currently and in the past. These individuals are referred to as informed experts who participated in the interview process. The study used purposive sampling to determine the samples, with 20 individuals considered as the sample size based on the principle of saturation. Semi-structured interviews were utilized in the qualitative part of this research.

2.2. Data Collection

In individual interviews with the respondents, 2 main questions were used for preliminary examination. After conducting 20 interviews, since the main and secondary factors were repeated in previous interviews and the researcher reached saturation, to ensure the validity of the tool in the qualitative section of the research and to ensure the accuracy of the findings from the researcher's perspective, opinions from professors familiar with this field and academic experts who were knowledgeable and skilled in this area were sought. Participants were also simultaneously involved in the analysis and interpretation of data.

2.3. Data Analysis

The current study used test-retest reliability and intra-subject agreement method to calculate the reliability of the interviews conducted. The method of data analysis in the qualitative section is theoretical coding.

3. Findings and Results

As stated, the goal of this research is to design a curriculum model for adult literacy. In this context, the identification of objectives, content, teaching-learning methods, and the evaluation style of the adult literacy curriculum has been undertaken. Table 1 presents the concepts, subcategories, and main categories related to the objectives:

Table 1

Main Categories, Subcategories, and Concepts Extracted from Interviews and Texts

Main Category	Subcategory	Concepts
Adaptability to Environment	Needs Assessment	Surveys on curriculum implementation; assessment of adult education needs related to the curriculum; development of informal curriculum based on existing needs; evaluation of individuals' facilities for applying a learning-based curriculum; support from literacy movement managers and stakeholders for curriculum implementation control.
	Cultural Compatibility and Individual Differences	Curriculum alignment with individual differences; attention to the social culture of the educational area for using the advantages of the applied curriculum; consideration of cultural differences in curriculum planning; attention to the number of adults exposed to the curriculum and receiving the same curriculum despite having their cultural content.
Flexibility	Curriculum Flexibility Regarding Environment	Acceptance by literacy movement managers of implementing an environment-specific curriculum; freedom for literacy movement teachers to apply different contents within the curriculum framework for job talent identification; provision of choice for individuals regarding learning in non-workplace environments; application of the curriculum based on available technological equipment.
Strategic Competencies	Attitude	Behavioral change in individuals; setting behavioral expectations for adults; determining behavioral factors after curriculum implementation; feeling of self-efficacy in different situations; positive mindset.
	Knowledge	Feeling of self-efficacy in different situations; positive mindset; having a sense of autonomy in thoughts.
	Skill	Learning metacognitive skills; developing better thinking skills; developing self-management skills in learning.

As Table 1 shows, the analysis of data related to the objectives of the adult literacy program resulted in 25 concepts, 6 subcategories, and 2 main categories.

Table 2 presents the concepts, subcategories, and main categories related to the content theme:

Table 2

Main Categories, Subcategories, and Concepts Extracted from Interviews and Texts

Main Category	Subcategory	Concepts
Content Selection	Challenging	Organization of content presented in the curriculum; attractiveness of curriculum content; creating a sense of competition for learning curriculum content among adults; encouraging individuals to choose the curriculum based on talent and need; motivating research and inquiry by recognizing the curriculum; challenging current issues with the proposed curriculum; inviting managers and teachers of the literacy movement to participate in selecting curriculum content; presenting attractive and challenging content appropriate to individuals' jobs in the organization.
	Suitable	Evaluation of curriculum content suitable for individuals' needs; assessment of the suitability of curriculum content with regional facilities; assessment of the suitability of curriculum content with technological mechanisms available to individuals; attention to market needs in presenting the curriculum to individuals; strengthening individuals' learning with appropriate content; motivating teachers towards the use of active methods in curriculum learning.
	Accessibility	Availability of suitable curriculum; provision of necessary information technology for implementing the presented curriculum; easy use of curriculum content by individuals as a factor for advancing learning; provision of virtual facilities to individuals.
Content Organization	Content Sequence	Organizing educational content from simple to complex; from whole to part; classifying content based on chronological order; classifying content based on the educational structure along with action.
	Balance	Creating compatibility between learners' abilities and educational content; creating compatibility between teachers' educational experiences and learners; aligning with learners' jobs.
	Psychological Organization	Structuring content based on learners' interests; structuring content based on learners' needs; logical organization based on the difficulty level of content.

As Table 2 shows, the analysis of data related to the content of the adult literacy program resulted in 28 concepts, 6 subcategories, and 2 main categories.

Table 3 presents the concepts, subcategories, and main categories related to the teaching-learning methods of the study:

Table 3

Main Categories, Subcategories, and Concepts Extracted from Interviews and Texts

Main Category	Subcategory	Concepts
Transmission Method	Direct Transmission Method	Utilizing experiences of instructors, experts, and lecturers through lectures and seminars; using various tools for teaching learners; employing lecture methods to teach educational concepts to learners; using memorization techniques for remembering core educational concepts; using electronic facilities like videos, clips, photos, and PowerPoint for learning core educational concepts in class; using demonstration teaching methods for learning core educational concepts in class; learning core educational concepts through related educational films shown by the instructor in class; reinforcing the feeling of self-reliance and independence in learning, as well as a sense of mastery and control over the future through memorizing educational concepts.
	Indirect Transmission Method	Recording audio based on the curriculum and transmitting it to learners; recording multimedia educational videos for content transmission; conveying concepts through text chat; transferring educational content through the selection of assistants.
Activity-Based Method	Job-Based Method	Identifying jobs of learners and using active methods based on their professions; teaching based on today's market-required skills; teaching based on environmental uncertainties in the future.
	Interaction-Based Method	Using the question-and-answer teaching method for learning concepts; employing role-play by adults for learning concepts; using group discussion method based on content predetermined by the instructor for learning concepts; active participation of learners in learning topics using the collaborative learning teaching method where the instructor acts as a facilitator.
	Individual-Based Method	Action research based on educational topics; lesson study based on educational topics and issues; interaction with various industries related to learners' interests; defining core educational topics and encouraging learners to learn to mastery by themselves considering individual learner characteristics.

As Table 3 shows, the analysis of data related to the teaching-learning methods of the adult literacy program resulted in 23 concepts, 5 subcategories, and 2 main categories.

Table 4

Main Categories, Subcategories, and Concepts Extracted from Interviews and Texts

Main Category	Subcategory	Concepts
Goal-Based Evaluation	Matching Evaluation with Objectives, Content, and Learning Resources	Informal evaluation of the curriculum in line with educational objectives; evaluating the presented curriculum to enhance learning; comparing the content of the presented curriculum with principles of career talent discovery.
	Clarity and Transparency of Evaluation Criteria	Determining learning criteria; changing evaluation criteria according to the presented curriculum content; transparency in evaluating individuals' performance; evaluating individuals based on performance and competency criteria, not based on their opinions in the presented trainings.
	Using Evaluation Methods	Employing active methods for assessment; teaching self-evaluation as the most important step in curriculum evaluation; making individuals aware of various evaluation methods; applying formative evaluation; applying traditional evaluation alongside other evaluations.
	Flexible Evaluation and Assessment	Flexible assessment; evaluation based on the environment; evaluation based on educational facilities provided to them.
Method-Based Evaluation	Teaching Method Evaluation	Evaluating the question-and-answer teaching method; evaluating active and participatory teaching methods among learners; evaluating role-playing teaching methods by learners.
	Evaluating Teaching Facilities of the Curriculum	Evaluating technological equipment for implementing the curriculum; evaluating learning and teaching facilities among learners; evaluating educational space equipment.
Content-Based Evaluation	Curriculum Efficiency Evaluation	Evaluating the efficiency of selected content towards achieving set goals; evaluating curriculum content in terms of knowing, doing, living together, and living with others; evaluating the effectiveness of curriculum content.
	Curriculum Quality Evaluation	Evaluating the degree of compatibility of educational materials and media with curriculum content; evaluating the tangibility of the curriculum; fully evaluating the curriculum content based on educational objectives.

As Table 4 shows, the analysis of data related to the evaluation style of the adult literacy program resulted in 27 concepts, 8 subcategories, and 3 main categories.

4. Discussion and Conclusion

The study aimed to design a curriculum model for adult literacy education and yielded several key findings, organized into main themes and their subthemes:

The objectives of designing a curriculum model for adult literacy education include:

Adaptability to the environment: These findings are consistent with previous studies (Akintolu & Uleanya, 2021; Aliyu, 2018; Gholtash & Gol Afrouz Ramazani, 2018; Pourfathi, 2013), showing that the adult education curriculum requires fundamental reforms. This research also indicates that the curriculum should meet adults' job-related needs and address their requirements in every employment unit. Motivating individuals who have dropped out of school to participate in distance education centers and adult education to enhance social personality, acquire university degrees, family and peer encouragement, and career advancement are also mentioned as objectives.

Strategic competency: These findings align with previous studies (Aliyu, 2018; Gholtash & Gol Afrouz Ramazani, 2018; Kolinsky et al., 2019; Pourfathi, 2013), showing that some researchers have seen strategic competency in the possibility of learning and reading skills in completely illiterate individuals, stating that learning and reading skills

in illiterate adults are only possible through a structured curriculum. Indeed, the adult education curriculum requires fundamental reforms. This research also shows that the curriculum should meet adults' job-related needs and address their requirements in every employment unit. Research has also referred to curriculum objectives in literacy as skill-based objectives, including basic life skills, practical skills, learning skills, and knowledge objectives, encompassing socio-cultural, scientific, spiritual (religion and ethics), and health-care categories, as well as individual and social attitudes as basic needs.

The content of designing a curriculum model for adult literacy education includes:

Content selection: These findings align with previous research (Akintolu & Uleanya, 2021; Allatt & Tett, 2019; Eilks & Hofstein, 2017; Kepp, 2023; Lee et al., 2020; Wu, 2020) emphasizing the importance of content selection and showing that adult literacy is based on specific goal setting and providing necessary content to ensure sustainable development. Additionally, the importance of content selection, considering the need and talent, is deemed very important. Researchers believe that unemployment plays a significant role in the curriculum development of adult literacy education and affects it. Therefore, they stated that content should be job-related. Content selection should aid the curriculum goal; therefore, it should facilitate calculation, reading, writing, and learning. Attention to

modern technologies and providing necessary technological facilities in the curriculum content is essential.

Content organization: These findings align with some previous studies (Kepp, 2023; Pourfathi, 2013), showing that content organization in research is focused on factors such as modern technologies, adult needs, and jobs in the country.

Teaching and learning methods in implementing the curriculum model for adult literacy education include:

Transmission method: These findings align with previous studies (Lee et al., 2020; Sadeh Meymandi et al., 2020; Sharifãn et al., 2019; Wu, 2020), where factors related to instructors and ultimately factors related to learners based on modern teaching methods play a significant role in the effectiveness of educational objectives. One of these methods is memorization. It's essential to identify and prioritize the educational needs of learners and transmission methods such as lectures and various teaching methods.

Activity-based method: These findings align with pervious studies (Lee et al., 2020; Sanusi et al., 2021; Shaftel, 2018), where educational planning factors, factors related to instructors, and ultimately factors related to learners based on modern teaching methods play a significant role in the effectiveness of educational objectives. Activity-centeredness is one of these methods. Therefore, the impact of radio education on adult literacy based on a general education program can be helpful. Adults' strong experiences and mental preconceptions make the curriculum planning system use activity-centered methods that satisfy their needs.

Evaluation methods of the curriculum model for adult literacy education include:

Goal-based evaluation: These findings align with previous studies (Aliyu, 2018; Lee et al., 2020), where some researchers in connection with evaluation state that evaluation should be based on pre-determined objectives in the curriculum planning system. Additionally, since adults possess strong experiences and mental preconceptions and have physical and psychological strengths and weaknesses (auditory and visual weaknesses), specific evaluation methods regarding them prove beneficial; Socratic evaluation methods are one of these methods. On the other hand, evaluation discussions should pay special attention to the objectives of adult education teachers in applying the curriculum. Attention to objectives in evaluation ensures the curriculum meets adults' job-related needs and addresses their requirements in every employment unit.

Method-based evaluation: These findings align with previous studies (Shaftel, 2018), where not only learners are evaluated in this type of evaluation, but also the teacher's teaching method, how they conduct questions and answers, how they advance classroom activities, and whether they utilize participatory methods in class are evaluated. Literacy teachers should also evaluate various methods, and learners can evaluate them in teaching and the role they play in class. The presence of appropriate evaluation standards facilitates method-based evaluation by providing a clear path and a suitable conceptual framework for literacy teachers.

Content-based evaluation: These findings align with previous research (Kepp, 2023; Kolinsky et al., 2019; Sadeh Meymandi et al., 2020), where it's clear that a suitable curriculum and course content, as well as the type of teaching, create additional motivation for learners and should be prioritized. Evaluating these aspects is also very important as it prevents previous issues in revising textbooks and increasingly tailors content based on the needs of adult learners. Another aspect considered by researchers in content-based evaluation is paying attention to aspects such as establishing Iranian-Islamic identity, fostering creativity, innovation, religious and cultural values in adults, balanced development of knowledge in each topic (mathematics, Persian, Quran and Islamic studies), and matching content with adults' mental capacity and understanding level, and considering learning opportunities and capabilities in content selection. It should be noted that content-based evaluation should consider the proportion of content volume to allocated instructional hours and the number of lessons and the volume of books.

Each theme and its subthemes underscore the comprehensive approach required to design an effective adult literacy curriculum. The curriculum must be adaptive, strategically competent, well-organized in content, employ effective teaching and learning methods, and incorporate multifaceted evaluation strategies to meet adult learners' diverse needs and promote sustainable literacy education.

The study, while comprehensive in its approach to designing a curriculum model for adult literacy education, faces several limitations that may impact its generalizability and applicability. Firstly, the reliance on a qualitative methodology, though rich in depth, limits the ability to quantify the effectiveness of the proposed model across diverse populations and settings. Secondly, the sample size, though sufficient for saturation in qualitative research, might not fully capture the diversity of perspectives from a broader range of stakeholders in adult literacy education, including

learners with varied backgrounds and needs. Additionally, the study's findings are primarily based on the analysis of interviews with experts and review of existing literature, which may introduce bias if those sources have predominant views that do not reflect wider educational practices or innovative approaches emerging in the field. Lastly, the focus on curriculum design, without a longitudinal component to assess implementation and outcomes, leaves unanswered questions about the real-world impact and challenges of applying the proposed model in different educational contexts.

In light of the obtained results, it is recommended:

- Motivation creation considering incentive and support packages, providing education tailored to societal needs, composing educational books regionally, using psychologists and sociologists' opinions in dealing with literate individuals effectively in encouraging low-literacy and illiterate individuals towards literacy education should be considered.
- Utilizing the potential and capacity of university students from the University of Teacher Education for literacy education can address financial concerns and human resource shortages to some extent.
- Providing education tailored to the needs of each region encourages and attracts low-literacy and illiterate individuals towards literacy education.
- Creating focus while moving towards decentralization, meaning that centralized textbooks are taught, and books tailored to the needs, culture, customs, and traditions of the region can encourage individuals towards literacy education.

Authors' Contributions

Authors participated collaboratively in this study.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

Ethical Considerations

All ethical standards were observed.

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