Research-Oriented and Creativity-Based Curriculum: A Strategy for Enhancing the Quality of Higher Education

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Abstract
Curriculum, being a central aspect of the higher education system, is critical in improving the quality of education, developing intellectual abilities, and enhancing students' research and creative abilities. In most developed nations, research-based and innovation-oriented curriculum reforms have revolutionised the structure of education and increased the possibility of innovation. Despite the fact that prevalent initiatives have been put in place in Afghanistan, the current curriculum is more traditional-centred-teacher-centred as opposed to the inclusion of analytical, research, and innovation among learners. This study investigates the role of the curriculum in encouraging research-oriented instruction and cultivating learners' creative abilities. Official educational texts, policy documents, and authoritative reports were carefully selected and gathered as data, then coded, categorised, and thematically analysed with the help of the NCT (Noticing, Collecting, Thinking) approach. The recurrent nature of the manual reading of the documents allowed us to uncover constitutive themes and patterns applied to curriculum reform, giving a solid background to the development of critical thinking, problem-solving, and knowledge production, thus leading to the improvement of the educational quality. Suggestions are provided for curriculum reform in the higher education system of Afghanistan, with special attention to innovation- and student-centred learning curves, longitudinal comparison of curriculum reforms, and factual research on the impact of creativity- and research-oriented curricula on learning outcomes in different educational and cultural settings.

Keywords: Curriculum, Higher Education, Research-Oriented Education, Creativity-Oriented Education, Quality of Higher Education.

Introduction

The modern world is facing swift and complicated changes, which force education systems to align with them. In this context, the curriculum, as the main core of educational systems, is important for achieving the goals of higher education (Karami & Fattahi, 2012, p. 67). Over the past few decades, the situation in the sphere of higher education in developed nations has changed significantly, and the content and standards of the curriculum have been updated. Formulating an ideal framework and structuring learning materials are currently the central issues of educational leaders (Ghorbani, Neili, and Delbari, 2014, p. 33).

In Afghanistan, gaps in curricula continue to be a root problem despite the efforts that continue to be made. Among the key impediments to the quality improvement of education, one should highlight the traditional and rote-based character of the system, the low focus placed on research skills and creativity, and the overemphasis on teaching theoretical knowledge. Consequently, the

opportunities available to learners in Afghanistan for developing creativity and innovation are lower than those in developed countries.

Despite this, progressive educational systems put a strong emphasis on the development of creativity and the orientation towards research in the curricula, as sustainable development and progress in society cannot be achieved without individuals able to solve emerging problems and produce new knowledge using their creativity (Yarmohammadian, 2010, p. 7). According to Vernon, the term creativity is associated with the capacity to generate new ideas, theories, and original solutions (Sam Khanian, 2008, p. 17). It has also been proven that active teaching strategies and interactive learning conditions play an important role in developing the creativity of the students (Salehi Najafabadi, 1999, p. 5).

Despite efforts to reform Afghanistan's educational system, the existing system and curricula content still do not provide an appropriate base for enhancing research-oriented approaches and developing creative abilities. This study aims to examine research- and innovation-based curricula and their effects on improving the quality of higher education. The main question is as follows: How might curricula be used as a source of research and creative potential in students? In this respect, the current study will be descriptively and analytically oriented and will make use of qualitative content analysis with the NCT approach, where official documents, scholarly articles, and similar studies will be examined to determine the influence of curricula in fostering research and creative skills in higher education.

Literature Review

Many studies have proven that research-based learning is one of the most effective educational methods for improving students' research and creativity. In their article, Caroline and Laborie (2017) highlighted the idea that analytical skills can be enhanced, and learners' motivations can be boosted with the help of analytical methods that are supported by research. Likewise, in his experimental research, Down (2015) demonstrated that research-based education produces a more positive attitude towards the process of learning and improves students' academic performance.

Concentrating on the effects of research-oriented activity on educational conditions, Abdi (2014) and Ghazi Ardakani (2017) found that the given methods not only reinforce learning motivation but also offer an appropriate background to develop students' creativity and critical thinking. In addition, Sarkhosh et al. (2021) emphasised that innovation-oriented curricula must consider the abilities, requirements, and interests of learners to promote the development of innovative skills. Sadeqi Mal-Amiri and Raeesi (2009) have also pointed out the most important role of the creativity expression of the process of creative thinking and argued that learning environments should be able to empower and reinforce the ability of learners to think creatively.

Although these studies have played an important role in research-oriented and creativity-based education, much of the literature published in this area has analysed the two methods independently. Little literature has been published on the systematic relationship between research-based and creativity-based curricula as a measure of enhancing the quality of higher education. Moreover, most research has been performed within the framework of developed education systems, and the localisation of approaches in developing countries such as Afghanistan has been neglected.

The primary gap in the prior literature is that no study has been conducted to determine the integrative nature of research-oriented and creatively based curriculum in improving the quality of higher education in Afghanistan, and also examine the challenges and opportunities in its implementation. The current research paper aims to fill this scientific gap with a critical review of the current curriculum framework and to define the needs and practical answers to its revision. The results of this research would help policymakers and education planners to develop dynamic curricula that are sensitive to societal demands and the abilities of learners towards the quality of higher education in Afghanistan.

Methodology

This study is more purposefully applied and qualitatively uses document content analysis by the Notice-Collect-Think (NCT) approach. The research population consisted of official documents of the

Ministry of Higher Education, approved curricula, educational policy papers, research reports, and scholarly articles that are reputable and related to curriculum, research-based learning, and creativity-based education.

The data were collected through a systematic review of official documents and texts and analyzed in the following stages:

Notice Stage: Documents and texts pertaining to curricula, educational policies, and quality reports of higher education were thoroughly examined at this stage, and major concerns of concern to the research issue (concepts that are research-oriented, approaches driven by creativity and innovation, innovative skills, and current challenges) were traced.

Collect Stage: The data were grouped and first coded. The main themes that emerged were contemporary teaching practices, some of the shortfalls of the existing curriculum, research and innovation policies, and curriculum change strategies.

Think Stage: The coded data were thematically analysed, and the central concepts and trends were obtained. The analysis utilised both inductive and deductive reasoning (formed out of observed data in the documents) to obtain meaningful patterns regarding enhancing a research and creativity-interest curriculum.

The main tool of analysis in this study was the researcher, who had to conduct the coding and analysis manually. The first part entailed the extraction of meaning units (key sentences) from documents and coding them as open codes. Later, similar and other related codes were organised into conceptual categories (axial codes), and the key concepts and major patterns were distilled. To ensure accuracy and improve the reliability of the data, iterative review (repeatedly reviewing the documents) was chosen, and the process of coding and analysis was constantly related to the theoretical framework of the research.

Data triangulation was used to enhance the validity and reliability of the results. In this regard, the data were gathered through a mixture of official government publications, academic literature, and international policy papers, and analysis through the process of repetition and cross-validation was performed.

Concepts and Theoretical Foundations

Curriculum

The curriculum as an issue of human concern is not a recent discovery, and its history can be traced back to the dawn of human life. Nevertheless, its scientific basis as a separate and professional discipline of study dates back to 1918 (Talebi, Mazloomian, and Saif, 2009). Curriculum is regarded as one of the fundamental and paramount aspects of academic programs within the Ministry of Higher Education. On the one hand, the standardisation of the curriculum as a guideline for students and training of human resources in the country has enhanced the quality of teaching and learning in higher education institutions (Ministry of Higher Education, 2019). Curriculum is also considered to be a significant factor of quality of higher education and to bring the views, knowledge, and skills of the graduates into line with the current scientific advances and labour market needs (Namkhah, 2011).

There are different types and levels of curriculum, including the formal (explicit), hidden (implicit), and null curricula (Eisner, 2001). Formally, curriculum refers to a set of goals, materials, and instructional strategies that are clearly articulated in writing and officially recognised by the education system (Mehrmohammadi, 2009).

Other forms of curriculum include operational (enacted), hidden, and null curricula (Fathi Vajargah, 2014a). Levine, Tombs, Firor, Amy, and Chen indicate that the university curriculum normally consists of three or four elements: general or liberal courses, specialised university courses, semi-specialised university courses, and elective courses. The aspects of curriculum according to different scholars can be between one and nine, but all scholars seem to agree on four basic aspects of curriculum which include objectives, content, implementation (methods), and evaluation (Momeni Mahmoei, 2009).The curriculum as the issue of human concern is not a recent discovery and its history can be traced back to the very dawn of human life. Nevertheless, its scientific grounds as a separate and professional discipline of study date

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From a practical standpoint, at least two types of content can be identified in every subject:

Written content – Written content is developed in the form of textbooks and instructional materials, with textbooks being the most common (Farang & Ghasemzadeh Alishahi, 2017).

Oral content – Oral content refers to classroom instruction and the explanations provided by the instructor, and more generally, anything not written or documented (FathiVajargah, 2014b).

The value of curricular content emerges when it is constructed in a manner that enables students to follow their educational courses more comfortably based on their inclinations and choices (Tarmian, 2014). The utilisation of both learning materials and learning facilities that are integrated into the teaching and learning structures also contributes to both motivation and abilities among the learners. Specifically, modern technologies can enhance the flexibility of curricula and provide students with the needed interest in effective learning (Fardanesh, 2012). A curriculum may be foundational only when it takes a research-based approach and aims at developing creative talents; it is in such a mind that learners will be guided to enquiry, questioning, and internalisation of critical thinking (Ministry of Education, 2009).

The success and productivity of a curriculum define the worthiness of the program. Certainly, a curriculum that can supply students with the latest information and skills and prepare them to pursue a career or help them gain skills is more advantageous (Gharedaghi, 2013). Furthermore, when a curriculum is created and adjusted based on the mental, physical, psychological, and emotional features of the students, in addition to considering the differences among them, the chances of individual learning and development will be strengthened. Curriculum contents can also be modified to suit the needs and attributes of the learners through modern technologies, and thus improve their learning outcomes (Naseri, 2013).

Research Orientation

Over the past decades, to counter the perceived deficits of developing nations in the higher education curriculum, a research-based paradigm has emerged (Sofi, 2011). Enquiry-based learning guidelines are closely connected with practice and development, as well as the development of thinking skills (Dostal, 2015). If the research approach in education is taken to be the one that promotes the learners to think critically, solve problems, and discover new or latent knowledge using scientific means, it means that the research approach not only allows students to gain a better perception of the concepts but also makes them more competent in dealing with the challenges of real life (Brew, 2010).

In the enquiry approach, students are encouraged to observe, ask questions, describe phenomena, make predictions, and test them using what they already know, and share and discuss ideas with peers. By actively applying critical thinking and reasoning, they can increase their knowledge and relate it to current scientific discoveries and intellectual abilities (Simsek & Kabapinar, 2010).

Studies indicate that, provided that a curriculum is developed based on a research-oriented approach, it may enhance academic achievement and motivate students to learn (Healey, 2005), as in a research-based curriculum, the educational goals are stated according to the specifics of learners (Ardakani et al., 2017). Reasoning, reflective thinking, and research are among the most significant skills that should be stressed in the content of instructions. In this respect, advocates of research-based education emphasise approaches that help cultivate the spirit of enquiry and put learners in a state of ambiguity or problem-based condition (Ahmadi, 2011).

Creativity Orientation

In the contemporary society, creativity and development of creative minds have been regarded as being of great importance in the education systems of any society. Innovative people can easily channel their interests and desires (Tan, 2007). In the process of life, human beings can never escape thinking and reflection; by engaging in proper reasoning, human beings make decisions, solve problems, and attain growth and excellence (Hosseini, 2007). Creativity is one of the most difficult issues in educational sciences because there is no complex and generally accepted definition that embraces all its dimensions or provides an exact way of measurement (Furnham and Bakhtiar, 2009).

Mohammad et al. (2020) refer to a definition expressed by Tony Buzan, according to which creativity is the possibility to create new ideas to solve the problems using mental and physical capabilities to connect with a broad variety of ideas and behavior. Similarly, Weisberg and Weir defined creativity as a skill in solving problems in a manner that the person has not studied before. Kraft explains creativity as an innovative act that seeks to deliver some original and valuable results. Another definition of creativity, which is provided by Vernon, is the capacity to create and re-create new and innovative ideas, theories, and phenomena (Mohammadi, 2020: 52).

There are different schools of thought regarding the source of creativity. Other researchers like Jean Piaget do not consider creativity as a distinct characteristic but rather a component of knowledge building in human cognition (Biabangard, 2013). Wolfolk (2014) holds that creative power is just like problem-solving skills and relies on the knowledge and information of a person in a particular field. Fisher (2007) views creativity as any form of mental activity that helps solve problems, make decisions, or comprehend a subject. In the same way, Eggen, & Kauchak, (2012) define creativity in a wider context to refer to any task of the mind that helps in solving problems, making decisions, or achieving a better understanding.

Moreover, Gagné considers creativity a form of problem-solving and underlines the fact that it can be cultivated through proper education. According to Dorin, & Korb (2009), the concept of creativity is being able to come up with new, unexpected and useful ideas. According to Santrock (2017), creativity and inventiveness is the capability to think differently and in an unconventional manner and come up with distinct solutions to problems. Various types of creativity have been identified by researchers, including logical, critical, and philosophical creativity (Seif, 2013).

In addition to the individuality the aspect of learning and cultural background is very vital in the development of creative talent. The social, cultural, and educational systems have been shown to affect creativity, that is, not only because of individual factors but also because of social, cultural, and educational systems (Ching Pingchang, 2013). The scientific research on creativity can be traced as far as the seventeenth century when philosophers like Thomas Hobbes and John Locke first developed their ideas about the creativity (Nakpodia, 2010). The necessity of the innovative and progressive approaches in the education system is also stressed in the National Curriculum Document of Iran (Ministry of Education, 2012).

According to these results, supporting the development of creative talent in education

necessitates such practices as development of dynamic learning atmosphere, innovative teaching strategies, and availability of learners to experiment and innovations (Czernecka, & Szymura, 2008). Over the past few years, the relevance of creativity and the nature of creative individuals in professional settings have become popular topics of study (Chang, 2013).

The Relationship Between Curriculum, Research, and Creativity

The three important parts of the learning process that interact and influence one another are curriculum, research, and creativity. The curriculum may be a proper platform for cultivating creativity and research-oriented thinking. When the content of the courses focuses on traditional and rote learning, it offers limited chances for learners to acquire the ability to be creative and to do research (Amabile, 2006). This is because the current education systems promote research and ingenuity to be part of the curriculum, which will enable students to explore and exercise their learning.

As we can see, the school systems of the developing world continue to be based on the textbook, teacher-centered, and cognitive-based approaches to teaching and evaluating, respectively, which may negatively impact the development of the creativity. Thus, it is necessary to reform the curriculum to facilitate research and creativity (Sadeqi Mal-Amiri & Raeesi, 2009).

Other scholars like Henry and Barron (1999) have indicated that research and project based curriculums directly influence the attainment of the creativity of learners. Specifically, active learning theories, including Problem-Based Learning (PBL) and project-based learning, allow learners to analyse problems independently and suggest innovative solutions (Hennessey, 1999). In this respect, the curriculum must incorporate activities that enhance the creative thinking and encourage the learners to discover new concepts.

Research has revealed that the classroom atmosphere, the design of instructional space, the extent to which learners and instructors interact, and the utilisation of advanced technology could play a significant role in education development as far as creativity is concerned (Demiri and Mashinchi, 2019). Similarly, Ture and Esmit (2006) indicate that the use of creative instructional strategies and allowing learners to explore new ideas by instructors are positive factors that influence the development of the creativity of learners. Conversely, according to the results obtained by Bognar and Apracoid (2009), it is not enough to apply creative techniques but also the teaching time, teaching methods, previous experiences of learners, and creative attitude of instructors are significant.

Thus, to build a productive connection between curriculum, research, and creativity, the education system needs to focus on imparting predetermined knowledge to learning the skills of research and creative thought. This demands change of the conventional ways and substitution- with the instructional strategies that are based on critical thinking, problem-solving and innovation.

The Role of Curriculum in Strengthening the Research-Oriented Approach

Curriculum is one of the most important pillars of educational systems that contribute to the nurturing of the research-oriented approach of the learners. The implementation and creation of a curriculum based on a research focus can provide a platform through which the development of critical thinking, creativity, and research skills can be trained in learners. Precisely, it fosters curiosity, initiative, critical thinking, critique opportunities, nurture of creative talents, entrepreneurial skills, comprehension of ambiguity and uncertainty, life long learning, and inquiries among learners (Moroye & Uhrmacher, 2010).

Studies have shown that a properly laid out and objective-oriented curriculum, which utilises various and suitable means, can improve the learning process and raise the efficiency of education. One of the notable educational innovations is seen as research-based teaching, which is regarded as a way of enhancing research competencies, as well as achieving scientific knowledge by instructors and researchers (Alake & et al, 2012).

Despite the fact that the aim of educational research has led to research-oriented pedagogical methods, teaching continues to be conducted mainly

in conventional forms (Chico, López-Gay, and Jiménez-Liso 2014). Conventional teaching systems tend to lead to a lack of interest in science among learners and low levels of scientific literacy. The textbooks are often confined to the needs of factual knowledge accumulation, the instructors who use the traditional approach deprives students of the chance to be creative and think critically. In these methods, the emphasis in instruction is placed on the impartation of knowledge and memorization: the teachers put the information on the table, and the students repeat it on the tests and soon forgetthem. This unilateral approach that is based on telling and memorizing is incompatible with the inherent interest and curiosity of learners (Ghazi Ardakani, 2017; Helalian, 2013).

In addition, extracurricular activities are very important in strengthening the curriculum and developing a research-oriented approach. Research-based learning is generally closer to practice and skill building, and these activities may promote research skills in learners by giving them unprecedented access to various learning materials, enhancing academic motivation, and enhancing the assessment process (Dostal, 2015). The role of instructors, in this case, is very important. Instructors can encourage creativity and research-based thinking to be developed in learners by developing dynamic learning environments and using creative teaching strategies. This, in its turn, makes students more interested in classroom and helps them to achieve academic progress (Marshall, Smart, & Alston,2016).

Introduction to Research Methods in the Curriculum

One of the primary aims of the curriculum is to enhance students' research abilities, allowing them to acquire knowledge independently and gain critical thinking and problem-solving skills. Various research methods that could be incorporated into the curriculum are presented in this section.

Inquiry-Based Learning (IBL): This approach is useful in acquiring research skills including the ability to formulate questions, collect data, analyze and interpret findings (Lucas, 2001; Healey, 2005).

Project-Based Learning (PBL): This method is not only stronger in skills of research, but also enables learners to practically use their knowledge in the real-life scenario, which effectively promotes critical thinking and creativity among them (Simonton, 2013; Thomas, 2000).

Problem-Based Learning (PBL): This approach allows the learner to be exposed to research skills, critical thinking and problem solving in real life and complex situations as well as finds viable solutions (Hui, & Lau, 2006; Hmelo-Silver, 2004).

Collaborative Learning: This approach teaches not only cooperation, communication, and sharing of tasks but also achieving better academic results and engaging students (Piirto, 2004; Lucas, 2010; Kunani, 2013); it results in an increase in academic performance and student engagement (Hassani & Jahandideh, 2015; Caroline and Laborie, 2017).

Technology Application in a Research: Educational technologies, including data analysis software ([SPSS, MAXQDA, EXCEL, PYTHON, NVivo]), databases ([Google Scholar, Scopus, JSTOR, PubMed, Web of Science]) and communication tools ([Zoom, Skype, Trello, Asana, Google Meet, Microsoft Teams]) can help students develop their research skills (Talkhabi and Safaei Rad, 2021). To take an example, one can use data analysis software to analyse research data (Norouzi, Zamani and Sharafzadeh, 2012) or will be able to use databases to collect information (Boyle, Topping, and Jindal-Snape, 2013; Zimmerman, 2007).

Structured Research: In such a research, the instructor presents information materials and helps students analyze and interpret the obtained data (Safaei, Zarei and Samavi, 2021).

Guided Research: The instructor asks research questions or problems and acts as a mentor, and the students collect and analyse information on their own.

Independent Research: Here, students create their own research questions and conduct all research stages with little supervision, which enhances their self-directed competencies (Hosseinpour, 2022).

The Role of the Curriculum in Nurturing Creative Talents

The curriculum is an essential and useful factor in the growth and cultivation of creative natures. Over the past decades, the world's educational

systems have engaged in massive endeavours to enhance cognitive skills, specifically emphasising developing creativity. The growing sophistication and rapid growth of knowledge have proven that if education is entirely aimed at acquiring and memorising information, the learner is likely to become overwhelmed by all the information and will be unable to develop the required skills of creation and innovation of knowledge. That is why education experts accentuate that the development of a creative and innovative generation should be one of the main purposes of education (Norouzvand & Shafiei, 2020).

As an educational system portrays the culture, needs and aspirations of every society, and is also based on the nature of available knowledge (Nakpodia, 2010), the curriculum is a strategic instrument that guides the aspects of education and defines the global competitiveness of the educational system. Nonetheless, issues like the large amount of course materials, old curriculum and lack of a clear intellectual horizon among learners has been a bottleneck to the ability of education systems in the developing countries to compete with developed countries which have highly developed systems (Khalifeh, & Khalifeh, 2018).

Studies in this field have shown that the curriculum has a profound multidimensional role in developing creativity. Some researchers have studied the approaches to fostering creativity, while others have examined the direct impact of the curriculum in this area (Nguyen and Shanks, 2009).

However, higher education in Afghanistan still struggles with problems such as the use of non-native curricula, content-based textbooks, teacher-centred learning, insufficient standardisation of timing requirements, and overemphasis on memorisation-based examinations.

Category	Key Sentences	Keywords
Research-based approach	Dawn (2015) and Abdi (2014): Research-based learning leads to academic achievement and fosters a more positive attitude.	research-based learning, academic achievement, positive attitude
	Boyleet al. (2013): Problem-solving, as well as individual and group projects, enhance motivation and learning.	learning motivation, research-based method
	Brew (2010): An inquiry-oriented approach strengthens critical thinking and problem-solving skills.	critical thinking, problem-solving, knowledge discovery
	Healey (2005): A research-oriented curriculum improves academic performance.	research-oriented curriculum, performance improvement
	Interdisciplinary Integration: The combination of scientific concepts fosters analytical skills development. Lesson Study: This approach involves collaboration among instructors in designing, implementing, and evaluating lessons in order to improve the teaching–learning process.	interdisciplinary integration, lesson study
Fostering creative talents	Down (2015) and Boyleet al. (2015) indicate that creativity-oriented methods lead to academic achievement and increased motivation.	Creative learning, motivation, academic achievement
	Mohammadi (2020) argues that creative expression facilitates creative thinking among learners.	Creative expression, creative thinking

Fostering creative talents	Eggen & Kauchak (2012) and Amabile (2006) define creativity as the ability to provide original solutions to problems.	Creativity, innovative solutions
	Eggen & Kauchak (2012) and Woolfolk (2014), citing Piaget, emphasize that creativity depends on background knowledge and the process of knowledge construction.	Knowledge-dependent creativity
	Ardakani et al. (2017) state that traditional textbooks deprive learners of opportunities for creative thinking.	Traditional methods, lack of opportunities for creative thinking
Curriculum	Helalian (2013) states that an emphasis on rote learning restricts deep learning and creativity.	Rote learning, reduced creativity
	Khalifeh, & Khalifeh (2018) argues that the excessive volume of course materials, the lack of a forward-looking perspective, and the absence of rich content hinder competitiveness with other countries.	Excessive course load, lack of forward-looking perspective
	Shabani et al. (2017) highlight that a creativity-oriented curriculum should be aligned with learners' interests and needs.	Creativity-oriented curriculum, attention to learners' interests
	Robinson (2011) emphasizes that curriculum can foster creativity by providing opportunities for critical thinking, problem-solving, and inquiry.	Opportunities for critical reflection and questioning
	A creativity-oriented program pursues diverse and multiple objectives	Multiple and diverse goals

Curriculum is crucial in the development and discovery of creativity and potential talents of learners. A poor curriculum may serve as an impediment to the expression of creativity and research-based approach. Nonetheless, a curriculum can be used as a chance to develop and improve learners' research-oriented abilities and creativity. The components of research and creativity curriculum are: (i) the purpose of the curriculum, (ii) curriculum content, (iii) teaching/learning strategies, (iv) instructional materials and resources, (v) grouping of learners, (vi) learning activities of learners, (vii) learning space, (iv) time, and (v) assessment. In short, the results are given in Table 2.

Selective Code	Axial Code	Open Code
Curriculum	Curriculum Objectives	Nurturing learners' abilities and skills, cultivating creative thinkers, and defining clear objectives are among the fundamental necessities of education. Providing opportunities for critique, inquiry, imagination, and innovation fosters intellectual growth and entrepreneurship among learners. Education should prepare them to understand complex situations and to utilize practical, technological, and cultural knowledge effectively.

	Curriculum Content	The alignment of content with learners' cognitive and intellectual development, as well as the concreteness of curriculum content, is of particular importance. Organizing content around key ideas and ensuring its relevance to learners' interests are influential factors in the learning process. Educational content should be derived from learners' and society's needs, labor market demands, and challenges, while also maintaining sufficient meaning and attractiveness for them. Moreover, engaging content and its connection to real-life contexts can enhance learning motivation. Structuring educational content requires horizontal and vertical integration, flexibility, and diversity in delivery methods. Such a structure can render the curriculum more dynamic and aligned with learners' needs.
	Teaching–Learning Activities	Experiments and practical activities play a fundamental role in learning. Problem-based and learner-centered approaches enhance motivation. Furthermore, research activities, academic field visits, collaboration with organizations, and the use of real-world experiences contribute to a deeper and more meaningful understanding of concepts.
	Instructional Strategies	• Problem-Solving Method: Analyzing and solving real-life problems. • Group Method: Promoting collaboration and interaction among learners. • Indirect Instruction: Facilitating learning through discovery. • Analogy/Illustration: Explaining complex concepts with understandable examples. • Guided Discovery: Searching for information and knowledge under guidance. • Cognitive Conflict/Contradiction: Stimulating critical thinking. • Comparison/Analogy: Clarifying relationships between concepts. • Question Lists: Encouraging active learning through inquiry. • Brainstorming: Generating new ideas. • Exploratory Learning: Independent investigation and discovery. • Creative Thinking (Ideation): Enhancing creativity and innovation. • Question-and-Answer: Promoting dialogue and exchange of ideas. • Field Trips (Scientific Tours): Learning through practical experiences.

	Instructional Strategies	• Creative Presentation/Demonstration: Strengthening creativity in delivery. • Group Discussion: Examining diverse perspectives. • Cooperative Learning: Increasing participation and shared responsibility. • Inquiry-Based Instruction: Encouraging exploration and information-seeking. • Project-Based Learning: Learning through practical and applied projects.
	Instructional Materials and Resources	The use of real objects, multimedia, educational software, and digital tools can make curriculum content more flexible and enhance the level of learning. Employing innovative and multisensory resources enriches the learning experience.
	Learner Grouping	Group work, inquiry circles, and collaborative learning are effective instructional methods that foster cooperation and strengthen scientific interaction among learners.
	Time	The proper and flexible use of time in learning, reducing time pressure, and creating opportunities for extracurricular activities are essential factors in enhancing the quality of education.
	Assessment	Modern evaluation methods such as descriptive assessment, project-based assessment, portfolios, and self-assessment can provide a more comprehensive view of learners' abilities and mitigate the limitations of traditional testing.

Challenges

The strategy of promoting research and creativity through the curriculum has a number of challenges that should be taken into account and carefully planned.

Standardisation and Traditional Examinations: Too much focus on standardisation and traditional examination prevents creativity from developing in learners. Learning systems driven by standardised tests tend to encourage students to learn by memorising rather than thinking creatively and out of the box (Robinson, 2011).

Inadequacy of Educational Resources and Facilities: This is more evident in poor or isolated regionalities where educational technologies, labs and resources to study in the practical or project based mode are not readily available (Sawyer, 2007).

Resistance to Change: Mostof the teachers are not used to new pedagogical practices and they may be unwilling to adapt to innovative teaching methods. This opposition slows the assimilation of creativity-and research-based curricula (Eisner, 2002).

Opportunities

Nonetheless, various opportunities can be used to increase the inclusion of creativity and research orientation in the curriculum despite the challenges.

Use of Educational Technologies: The integration of technology enables the learners to be creative in expressing their thoughts. Design tools, simulation software, and online courses should be used in curriculum development to facilitate the acquisition of creative and research skills (Deci and Ryan, 2000).

Focus on Teamwork and Exchange of Ideas: Group learning helps develop group creativity. Teamwork-based pedagogies ensure creativity-level curricula by offering professional development to instructors (Yu, 2024).

Changing Attitudes to Mistakes: By promoting new attitudes to mistakes, perceiving them as learning experiences and not as failures, the creative ways of

thinking and innovation can be encouraged, as well as among learners (Aminolroia, Yarmohammadian, and Vakheshtiarai, 2016).

Conclusion and Discussion

This study refers to how research-based and innovation-focused curricula can help improve the quality of colleges. The results indicate that curriculum as a major structural and pedagogical factor is a main factor in the development of intellect, enhancement of research capacity and development of creativity among students. Such results require wholesale curriculum reform that no longer relies on traditional, memorisation-focused, teacher-centred, and content-intensive models that prevail in most higher-education institutions in Afghanistan. The ability to be flexible in the objectives of the curriculum, the way information is delivered, the learning activities, instructional resources, grouping of students, time, the physical learning space, the assessment process is necessary towards fostering creativity and research activities whereas inflexible curriculums discourage innovation and motivation.

Some significant challenges were also found in the study. The excessive use of standardized tests, a shortage of material in education, especially in underprivileged areas, and the unwillingness of some teachers to embrace new tools that can help improve learning conditions can transform learning environments into the domains of information transfer, undermining the analytical and creative abilities of learners. Nevertheless, there are significant opportunities, such as the productive application of educational technologies, collaborative and participatory pedagogies, a positive approach to mistakes as learning opportunities, and giving instructors the power to engage in creative and student-oriented teaching strategies.

Although these findings can be a valuable contribution, caution must be exercised in their interpretation. The analysis was mainly on the Afghan higher education system, and its dependence on expert opinions and documentation brings some level of subjectivity. The generalizability and strength of the findings should be improved in future research by using mixed-methods research, institutional case studies and empirical classroom-level observations.

Although the implications are limited to these problems, they extend far beyond Afghanistan. Research- and creativity-based curricula have worldwide applicability, particularly in the context of higher education systems that aim to develop innovativeness, problem-solving skills, and higher-order critical thinking skills. The study's recommendations can guide policymakers and educators in various areas to develop flexible curricula, empower teachers, and employ learner-centred strategies that ensure that graduates are capable of meeting emerging needs in society and technology.

Finally, redesigning and rethinking curricula based on principles of research - and creativity-oriented education is not only the key to better higher education in Afghanistan but is also a strategic international priority to produce successful, creative, and future-oriented generations. This change should be a long-lasting commitment to educational institutions and policymakers to abandon the old systems and adopt flexible, adaptive, and innovation-oriented educational systems.

Future Research Directions

To continue with this line of enquiry, future research must focus on comparative research across various educational and cultural systems to determine global challenges and context-specific ways of implementing research-oriented and creativity-based curricula. They also need longitudinal and cross-national studies to help analyze the long-term effects of these reforms on academic performance of learners, research productivity, institutional innovation and national development. In addition, empirical research based on classroom observations, student assessments and instructor activities would provide more information about the process of the curricular reforms in real-life situations.

Recommendations

When creating the curriculum, the spiral, or matrix method can be used, which will interconnect various learning goals and create a platform to develop creativity and support the latent talents of learners. In this regard, the subsequent recommendations can be divided into short-term and long-term

policy measures to make them clearer and easier to implement.

Short-Term Policy Actions

Arranging Training Workshops: Practice capacity-building workshops to enhance the level of instructor competence in the application of active, research-oriented, and creative teaching practices.

Identity of the Role of Instruction: Recognition and reinforcement of the role of instructors:Take note of the role of instructors as an important component of curriculum success and ensure that creative and research-minded teachers lie at the centre of instruction processes.

Presenting Dynamic Learning Environments: Create flexible and challenging classroom environments that promote enquiry, invention, and interaction among students.

Encouraging Extracurricular Activities: Encourage extracurricular activities like student research clubs, innovation competitions and creative projects that supplement formal education and innovation.

Orienting Stakeholders to Pedagogical Leadership and Assessment Strategies: Organize awareness activities to familiarize faculty and curriculum planners with new pedagogical leadership strategies, assessment measures and performance evaluation systems.

Long-Term Policy Actions

Promoting Change in Curriculum Design: Introduce the comprehensive changes in the curriculum design, focusing on creativity, inquiry-based learning, and research orientation as the national strategies in higher education.

Linking Universities to External Academic and Research Centres: Form institutional relationships among universities, research centres, and industrial sectors to improve interdisciplinary relationships, cooperative research, and learning-based innovations.

Investing in Modern Technologies in Universities: Ensure continuous investment in modern educational technologies, digital infrastructure, and research to promote innovation and academic excellence.

Focus on Research-Oriented Approaches: Develop a long-term research culture by organizing science conferences, academic seminars, and joint research projects to promote an inquiry culture and development of new knowledge.

In summary, short- and long-term policy measures will play an important role in promoting creativity, stimulating research motivation, and creating a dynamic, creative, and learner-centred educational climate.

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