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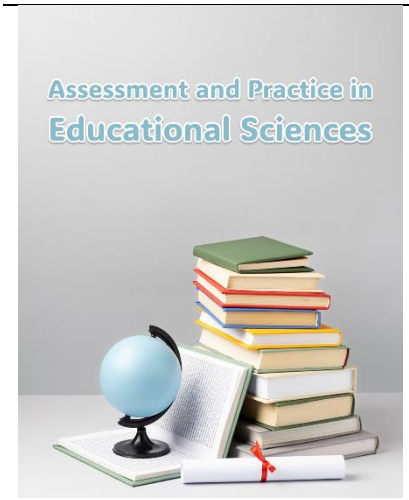

Identification and Prioritization of Contextual Factors Influencing the Improvement of Continuous Training for Employees in Universities of Baghdad Province

1. Farah Khairullah Fawwaz. Al Hiani: Phd Student, Department of Educational Management, Isf.C., Islamic Azad University, Isfahan, Iran .
2. Mohammad. Hosseinpour*: Associate Professor, Department of Educational Management, Ahv.C., Islamic Azad University, Ahvaz, Iran. (Email: Hosseinpour6@iau.ac.ir)
3. Muneer. Fakhri Saleh: Assistant Professor, Department of Educational Management, Al-Isra University, Baghdad, Iraq
4. Narges. Saeidian Khorasghani: Associate professor, Department of Educational Management, Isf.C., Islamic Azad University, Isfahan, Iran

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ABSTRACT

The present study aimed to identify and prioritize the contextual factors influencing the improvement of continuous training for employees in universities of Baghdad Province. The research was applied in terms of purpose and exploratory in terms of methodology. Grounded theory was employed to identify and prioritize the contextual factors affecting the enhancement of continuous training. Data were collected through semi-structured interviews with 15 selected academic experts using the snowball sampling method. Data analysis was conducted in three stages: open coding, axial coding, and selective coding. The findings revealed that contextual factors play a pivotal role in facilitating and enhancing the effectiveness of continuous training programs and were hierarchically classified according to their importance and influence. At the top of this hierarchy was managerial support and leadership, which, by fostering a motivational, supportive, and participatory atmosphere, plays a fundamental role in encouraging employees to actively engage in learning processes. The second-ranked factor was the university's supportive infrastructure and resources; access to equipment, financial resources, and modern educational technologies significantly strengthens employees' ability to benefit from training initiatives. The third most important factor was organizational culture and employees' attitudes toward learning, which facilitates the acceptance of continuous learning and feedback, contributing to the creation of a dynamic and learning-oriented environment.

Keywords: continuous training, university employees, contextual factors, professional development

Introduction

In higher education systems that face rapid technological change, demographic shifts, and budgetary pressures, continuous training for university employees has emerged as a strategic lever for institutional resilience and performance. Lifelong learning as an organizing principle extends beyond student curricula to encompass faculty and staff development, aligning individual

competencies with organizational goals and public value creation (1, 2). Contemporary approaches emphasize that employees are not merely recipients of training but active, self-directed learners whose career trajectories and identities evolve across the life span and across multiple role spaces within the university (3, 4). Within this frame, the continuous development of academic and administrative staff in Iraqi public and private universities—particularly in Baghdad Province—requires careful attention to institutional culture, supportive leadership, and enabling infrastructures, all under conditions of intermittent disruption and complex reform agendas (5, 6).

The global literature on lifelong learning underscores the necessity of moving from episodic, compliance-oriented training to coherent systems that cultivate learner autonomy, reflective practice, and problem-solving capabilities. Early conceptualizations of lifelong learning in undergraduate education argued for the intentional cultivation of metacognition, transfer, and learning-to-learn capacities that persist into professional roles (2). Self-directed learning, a core human resource development (HRD) construct, locates agency with the learner while recognizing the organization's responsibility to scaffold opportunity structures, feedback loops, and supportive climates (3). Career development theories further suggest that individuals navigate "life-space" roles and transitions; universities that align training with such transitions can improve employee adaptability and satisfaction, ultimately benefiting institutional outcomes (4).

At the meso level of organizational learning, universities must operate as adaptive systems that can learn amid disruption—whether fiscal, technological, or socio-political—by coupling individual learning processes with collective routines and coordination mechanisms (7). Action learning and critical action learning approaches have been shown to strengthen leadership capabilities in knowledge-intensive organizations by linking real organizational problems with structured reflection and peer inquiry (8). In educational settings, problem-based professional development (PD) builds problem-solving competence, encourages collaborative inquiry, and reinforces transfer to daily practice (9). Evidence from in-service teacher development indicates that consultation, implementation planning, and participant modeling can increase the fidelity and persistence of classroom management practices, highlighting the importance of design for enactment rather than mere exposure (10).

The macro-level imperative for universities to position themselves within national lifelong learning strategies calls for strategic coherence, stakeholder engagement, and governance architectures that bridge academic, administrative, and community interfaces (11). In evolving educational ecosystems, innovative cluster models—regional or sectoral constellations that connect universities, schools, industries, and civic actors—can enhance quality, diffusion of innovation, and resource sharing (12). Such models are especially relevant where resource constraints or infrastructural gaps exist, enabling universities to leverage networks and complementarities for training design, delivery, and evaluation.

The Iraqi higher education context presents distinct challenges and opportunities for continuous training. Survey-based evidence on career advancement and promotion for Iraqi academics documents structural and procedural barriers—ranging from criteria ambiguity to resource limitations—that can be mitigated by robust, aligned staff development systems (6). More specifically, empirical work in Iraqi public universities shows that organizational culture moderates the relationship between training development and academic performance, suggesting that even well-designed programs underperform in cultures that do not value learning, feedback, and collaboration (5). Consequently, interventions must be systemic: they should address not only content and delivery but also the cultural narratives, incentives, and leadership behaviors that determine participation, transfer, and continuous improvement.

Health and medical education literatures provide parallel insights for professional contexts similar to universities, where multidisciplinary teams, regulatory standards, and service missions intersect. Studies have identified recurrent pathologies in continuing education—fragmentation, lack of needs assessment, and weak follow-up—that blunt impact and waste limited resources (13). Conversely, blended-learning designs aligned with sustainable development principles can scaffold access,

equity, and environmental efficiency, while improving learning outcomes and flexibility for working adults (14). Effective teaching models for continuing medical education, developed through context-sensitive design and iterative evaluation, underline the importance of aligning pedagogical methods with adult learner characteristics and workplace realities (15). Factors influencing the development of continuing education at the university level include governance support, clear policy frameworks, and mechanisms for needs analysis and evaluation—elements that are equally salient for general staff development in higher education (16).

Internationally, the argument for a "new educational paradigm for evolving development" emphasizes adaptability, systems thinking, and interdisciplinarity as hallmarks of future-oriented training systems (17). In the humanities and social sciences—disciplines central to university missions—analyses of the tension between agentic reformers and institutional structures reveal that sustained capability development depends on negotiated alignment between bottom-up initiative and top-down support (18). Within schools and public education, recent work shows that continuous training and education significantly influence professional competence when the content is job-embedded, supported by leadership, and coupled with evaluation frameworks—principles transferrable to university staff training ecosystems (19).

Design principles for effective continuous training in universities thus converge on several nested domains. First, program architecture must be competency-based, modular, and flexible, enabling employees to pursue role-relevant learning pathways that respond to dynamic institutional priorities. Lifelong learner development requires explicit cultivation of reflective habits, feedback literacy, and self-assessment; embedding these practices within program cycles promotes persistence and transfer (2, 3). Second, learning must be situated in authentic work problems, with opportunities for collaborative inquiry, experimentation, and iteration—design logics supported by both problem-based PD and action learning traditions (8, 9). Third, organizational learning capacity hinges on feedback-rich climates and leadership practices that buffer disruption and model curiosity, psychological safety, and data-informed decision-making (7, 10).

Infrastructure—digital and financial—is an enabling condition, not a luxury. Stable connectivity, accessible learning platforms, analytics for monitoring progress, and reliable micro-credentialing systems are foundational for scale and equity. The strategic literature on universities' lifelong learning roles highlights the need for platform strategies, boundary-spanning partnerships, and governance mechanisms that integrate professional development with institutional strategy and external stakeholder needs (11). Where resources are constrained, cluster approaches and inter-university consortia can pool investments, harmonize standards, and co-develop shared curricula, while also providing professional communities of practice for staff across institutions (12). Such arrangements are particularly pertinent in Baghdad's mixed ecosystem of public and private universities, where disparities in resources and access can be offset by collaborative infrastructures (5, 6).

Culture operates as both the medium and the message of continuous training. A learning organization culture—one that normalizes feedback, tolerates failure as a source of learning, and celebrates innovation—amplifies the returns to training investments (3, 5). Conversely, cultures of compliance or credentialism without practice change can produce "training theater," wherein participation metrics rise but performance and service quality do not. Research on organizational action learning demonstrates that culture can be reshaped through cycles of inquiry into real work, supported by facilitation and leadership sponsorship, thereby creating reinforcing loops that embed new routines (8). In educational settings, implementation support structures—coaching, peer observation, and practice communities—translate intention into behavior, making it more likely that training effects persist (10).

Policy alignment is another persistent determinant of success. Universities must interpret national priorities for higher education, health, and economic development into actionable staff development portfolios that are budgeted, scheduled, and monitored. Strategic documents on lifelong learning argue for clear missions and metrics that locate staff development not as

a cost center but as a strategic investment in institutional effectiveness and societal impact (1, 11). In sector-specific contexts, studies have prioritized dimensions and indicators for effective in-service training—from needs assessment and instructional design to assessment and follow-up—offering templates for governance and quality assurance (20). When universities deploy blended learning modalities aligned with sustainability principles, they can simultaneously widen access, reduce time and cost burdens, and maintain instructional quality, particularly relevant when staff must balance teaching, research, and service loads (14).

At the level of pedagogy and learner experience, continuous training should cultivate meta-competencies that foster adaptability and innovation. Problem-solving, systems thinking, and reflective judgment are not ancillary; they are central outcomes that enable staff to navigate complex workflows and service commitments (9, 17). Moreover, under conditions of disruption—be it technological shifts or public health crises—models of learning that simulate or confront real disturbances help align individual learning curves with organizational needs (7). Within Iraqi universities, persistent challenges around promotion criteria, research productivity expectations, and administrative transformation intensify the need for training that integrates technical upskilling with socio-emotional and leadership development (5, 6).

The governance of continuous training benefits from grounded, context-sensitive inquiry. Qualitative methodologies, including grounded theory, provide robust tools for eliciting the lived experiences of employees and leaders, mapping contextual enablers and barriers, and deriving explanatory models that are both descriptive and actionable (21). Such inquiry complements quantitative program evaluation by illuminating the mechanisms through which infrastructure, leadership, and culture interact. Insights from adjacent domains—continuing medical education, for example—reinforce the importance of iterative diagnosis of program "pathologies," co-design with stakeholders, and structured follow-up to ensure transfer and impact (13, 15). Where humanities and social science perspectives interrogate the interplay of agency and structure, they sharpen our understanding of how cultural and institutional forces shape the uptake of training and the diffusion of innovations across academic units (18).

Regional innovation perspectives add a final layer: universities can act as anchor institutions in local capacity-building by convening cross-sector actors, aligning training priorities with regional development agendas, and supporting micro-credential ecosystems that recognize skills relevant to labor markets and public services (11, 12). When these strategies are embedded in cultures of lifelong learning and supported by enabling infrastructures, they can transform continuous training from a set of courses into an institutional capability.

Against this backdrop, the present study focuses on universities in Baghdad Province and adopts an exploratory, qualitative approach to identify and prioritize contextual factors that influence the improvement of continuous training for employees.

Methods and Materials

The present study was conducted with the aim of examining the contextual factors influencing the improvement of continuous training for employees in universities of Baghdad Province. In terms of purpose, this study is applied, as its results can be utilized to enhance and improve the system of continuous training for university employees. In terms of nature and method, the study is qualitative and exploratory, as it seeks to identify the contextual factors influencing continuous training based on raw data and the real experiences of university employees and administrators. Data collection was carried out through semi-structured interviews, and data analysis was performed using the processes of open, axial, and selective coding.

The statistical population of the study consisted of experts, managers, faculty members, and specialists in education and human resource development from both public and private universities in Baghdad Province. These individuals had at least ten years of experience related to continuous training, empowerment, and human resource development.

Given the qualitative nature of the study, purposeful sampling and the snowball sampling method were employed. In this approach, a few key experts were first identified and interviewed, and they were then asked to introduce other knowledgeable individuals. The sampling process continued until theoretical saturation was reached—that is, after 15 semi-structured interviews, no new information was added to the data, and the researcher was assured of data adequacy.

For the collection of qualitative data, the semi-structured interview method was used. The interview questions were designed based on a review of theoretical literature, previous research, and the study's objectives. The main axes of the interviews included participants' understanding of the concept of continuous training, facilitators and barriers to the development of continuous training, executive and managerial strategies in universities, and the role of organizational structure, academic culture, and managerial support in improving continuous training. Each interview lasted between 30 and 90 minutes and, with participants' consent, was recorded and later transcribed verbatim.

The collected data were analyzed using the systematic model of grounded theory developed by Strauss and Corbin (1998). The analysis process included three main stages:

Open Coding: At this stage, the data were divided into small conceptual units, and initial concepts were extracted based on similarities and differences.

Axial Coding: Similar concepts were categorized into main and subcategories, and the relationships among them were identified according to the paradigm model (causal, contextual, intervening, strategic, and consequential).

Selective Coding: At this stage, the central (core) phenomenon of the study—namely "the development of continuous training for employees"—was identified, and other categories were explained in relation to it within the framework of a final paradigmatic model.

To ensure the credibility of the data, Lincoln and Guba's (1985) four-fold criteria were applied: credibility (through participant review), transferability (through rich description of data), dependability (by documenting all research stages), and confirmability (through peer review).

Findings and Results

The demographic characteristics of the interview participants are presented in Table 1.

Table 1. Demographic Characteristics of Experts

Demographic Characteristics	Frequency	Percentage
Gender		
Male	10	65
Female	5	35
Age		
Under 50 years	6	40
Over 50 years	9	60
Work Experience		
10–15 years	4	27
15–20 years	3	20
20–25 years	8	53
Education		
Master's degree	7	47
Doctoral degree	8	53
Total	15	100%

The results obtained from open coding are shown in Table 2.

Table 2. Extracted Concepts at the Open Coding Stage

No.	Examples of Verbal Statements Extracted from Interviews	Extracted Concepts

1	Managers and employees should develop a clear vision and strategy for continuous training.	Developing a clear vision and strategy for continuous training
2	Universities play an important role in reviewing in-service training programs for employees.	The role of universities in developing and reviewing employee training
3	A holistic and systemic perspective must prevail in continuous training.	Systemic perspective on training
4	Employees should actively participate in the learning and educational decision-making process.	Employee participation and collaboration in training
5	Opportunities should be provided for creatively solving job-related problems.	Empowerment and creative problem-solving
6	Managers play a crucial role in creating an environment of growth, respect, and organizational commitment.	Managerial support and backing
7	Employees play an effective role in promoting the university's work culture.	Strengthening organizational and work culture
8	Employees should assist students in a facilitative role.	Acting as facilitators and supporters for students
9	Establishing councils and working committees for employee participation is necessary.	Participatory and interactive management approach
10	Employees should be viewed as developed individuals with unique experiences.	Professional growth and maturity of employees
11	Employees should understand job expectations and organizational goals and be accountable.	Job accountability and responsible role-taking
12	Cooperation and collaboration among employees are essential to achieve university goals.	Developing teamwork and cooperation among employees
13	Employees should assist students in educational and research activities.	Supporting students in academic activities
14	Regular participation in workshops and conferences enhances employees' professional growth.	Professional development through training workshops
15	The university should provide opportunities for employees' personal and career growth.	Commitment to career development and continuous improvement
16	Employees should seek new job achievements while performing assigned duties.	Commitment to achieving new accomplishments
17	Reflective thinking leads to more effective interactions with students.	Creating conditions for student interaction
18	Employee creativity leads to innovative problem-solving.	Generating new ideas for problem-solving
19	Employees should share their experiences with others.	Knowledge sharing
20	Universities should prepare employees for challenges and difficulties.	Resilience and endurance
21	Managers should create an environment where employees can express their opinions freely.	Creating an environment for self-expression
22	Employees should feel respected and valued in the university environment.	Respecting and valuing employees
23	Reflecting on experiences and learning from mistakes improves performance.	Learning from mistakes and improving performance
24	Honesty and transparency of managers in dealing with employees are important.	Honest interaction with employees
25	Employees should be flexible and open to change.	Flexibility and openness to change
26	Employees should be capable of generating innovative ideas and finding creative solutions to problems.	Innovativeness
27	Employees should be risk-takers and challenge the status quo.	Self-confidence and risk-taking
28	The ability to inspire and guide others toward shared goals is vital.	Inspirational leadership and organizational guidance
29	Employees should feel free to express opinions and make mistakes.	Belief in participation and expression
30	The work environment should be safe and free from judgment to foster critical thinking.	Critical thinking
31	Employees should accept cultural differences and broaden their cultural understanding.	Multicultural acceptance
32	Employees should be able to empathize with students and understand their needs.	Empathy with students and understanding their needs
33	Continuous learning from experiences and interactions is essential for professional growth.	Lifelong learning
34	Informed decision-making and data analysis require training and job competence.	Professional expertise and competency
35	Ethical principles must be observed in decision-making and academic interactions.	Attention to ethical aspects
36	Employee training should lead to self-efficacy and reflection in interactions.	Empowering employee self-efficacy
37	Allocating sufficient time for mastery learning enhances performance effectiveness.	Mastery learning
38	Training should guide and motivate employees toward shared goals.	Purposeful educational leadership and direction
39	Training should strengthen self-motivation and organizational maturity.	Organizational maturity
40	Employees receive feedback from job experiences and make more informed decisions.	Job feedback
41	Planning and prioritizing tasks enable effective time use.	Goal-oriented time management
42	Continuous training emphasizes professional learning and awareness.	Professional and specialized employee development

43	Creating a safe and criticism-tolerant environment increases trust.	Safe and feedback-friendly organizational climate
44	Continuous training requires a deep understanding of the university's mission and realities.	Organizational insight and environmental awareness
45	Continuous evaluation of job activities improves performance.	Performance evaluation and monitoring
46	Managers' commitment to employee success increases motivation and efficiency.	Managerial commitment to employee training
47	High self-efficacy gives employees decision-making and leadership power.	Employee self-leadership
48	Employees should have a clear understanding of the university's goals and trajectory.	Clear vision
49	Trained employees can see problems from multiple perspectives and generate creative solutions.	Lateral thinking and innovative problem-solving
50	Training improves employees' positive interaction with university stakeholders.	Positive interaction
51	Comprehensive planning of continuous training promotes the university nationally and internationally.	Comprehensive and future-oriented perspective
52	Self-assessment and documentation of experiences foster personal growth.	Self-assessment and experiential reflection
53	Job rotation enhances practical learning and diverse skill acquisition.	Job rotation as a skill development method
54	Feedback from students and professors facilitates performance improvement.	Feedback from stakeholders
55	Networking with other universities promotes experience exchange.	Professional networking and knowledge exchange
56	Allocating sufficient resources and facilities for staff training is essential.	Resource provision and financial support for training
57	Using new technologies such as online platforms is essential for staff training.	Adequate access to information technology
58	Social networks should be used for sharing employees' lived experiences.	Utilizing social media in educational interactions
59	Continuous training encourages employees to take risks and participate in important university decisions.	Risk-taking and stepping outside the comfort zone
60	Commitment to in-service training and continuous learning is key to success.	Commitment to in-service training programs
61	Evaluation and self-evaluation promote growth and motivation.	Institutionalizing a culture of self-evaluation
62	Responsibility in decision-making and accepting outcomes are strengthened through training.	Promoting a culture of accountability and responsibility
63	Gamification of activities increases employee motivation.	Applying gamification in training
64	Familiarity with digital education is essential for implementing gamification.	Enhancing employees' digital literacy
65	Internet and communication problems hinder e-learning.	Reliable communication and internet infrastructure
66	Access to the university's training portal is difficult.	Technical issues
67	Lack of financial resources and equipment challenges continuous training implementation.	Insufficient financial resources
68	Employees do not believe in the importance of in-service training.	Lack of positive attitude toward continuous training
69	Holding feedback workshops is essential for performance improvement.	Developing a culture of educational feedback
70	Employees do not participate in activities when they lack trust in training programs.	Lack of trust in continuous training
71	Employees should be aware of national policies and priorities related to continuous training.	Awareness of national policies and priorities
72	Mission orientation directs employees toward clear goals and improved performance.	Employees' belief in organizational mission
73	Higher-level organizations play an important role in supporting the development of continuous training for employees and managers.	Support from senior university management
74	Managers should create an environment where employees feel secure and confident.	Creating a supportive environment by managers
75	Awareness of one's thinking in rational decision-making helps identify strengths and weaknesses and make better decisions.	Rational decision-making
76	Trained employees gain intellectual discipline.	Cognitive discipline at work
77	Employee training creates a free space for work-related discussions.	Creating an open discussion environment
78	Senior university administrators should encourage employees to participate in continuous training.	Employee participation in training courses
79	Through training in problem-solving and critical thinking, employees can make better and more informed decisions.	Acquiring essential skills
80	Training managers using feedback from students, professors, and educational materials enhances rational decision-making.	Using student feedback in decision-making
81	Using employees' experiences in decision-making promotes skill development and effective leadership.	Utilizing employees' lived experiences in decision-making
82	Continuous training enhances employees' awareness and enables better and more effective decisions.	Informed decision-making
83	In-service training enables employees to self-assess and make optimal decisions.	Self-assessment for self-development

84	Employees are encouraged to reflect on their experiences and strategies for performance improvement.	Encouragement for self-development
85	Trained employees can better recognize strengths, weaknesses, and diverse perspectives in their work.	Knowledge application through intuitive performance
86	Trained employees use up-to-date knowledge and science in their teaching performance.	Educational performance knowledge
87	Trained employees possess strong job skills, maintain motivation, and solve problems effectively.	Knowledge of leadership and management processes
88	Trained employees with situational awareness can manage challenges better and build strong relationships.	Job situational awareness
89	Continuous employee training fosters self-awareness and commitment to self-development.	Emotional self-awareness
90	Continuous training helps share hidden concerns and issues and develop deeper understanding.	Awareness of personal strengths and weaknesses
91	Highlighting innovative employee initiatives promotes reflective learning.	Developing reflective learning thinking
92	Conducting specialized courses and workshops in teamwork, technological skills, and reflective thinking is essential.	Organizing courses aligned with university development
93	Continuous training enables employees to evaluate, identify bottlenecks, and use coaching to develop skills.	Coaching skills in universities
94	Employees in continuous training commit to participation and collaborative decision-making.	Commitment to participatory decision-making
95	Evaluation and self-evaluation transform employees into thoughtful, independent, motivated, and goal-oriented individuals.	Acceptance of evaluation and self-evaluation

The results of the axial coding are presented in Table 2.

Table 2. Results of Axial Coding

Core (Main) Category	Subcategories	Related Concepts from Open Coding
1. University Infrastructure and Supportive Resources	- Access to information technology - Stable communication and internet infrastructure - Provision of educational facilities - Lack of financial resources - Technical problems in the university portal	56, 57, 65, 66, 67
2. Managerial Support and Leadership	- Support from senior university management - Creation of a supportive environment - Managerial commitment to staff training - Building managerial trust - Inspirational leadership	6, 46, 73, 74, 28
3. Organizational Culture and Employees' Attitude toward Training	- Positive attitude toward continuous learning - Commitment to in-service training programs - Belief in the organizational mission - Development of a culture of educational feedback - Safe and feedback-tolerant organizational climate	43, 60, 68, 69, 72
4. Technological Capability and Digital Skills	- Enhancing digital literacy - Using social networks in educational interactions - Familiarity with digital education - Use of new technologies	57, 58, 64
5. Participation, Interaction, and Organizational Networking	- Professional networking - Knowledge exchange among universities - Positive interaction with stakeholders - Participation in decision-making - Commitment to educational participation	9, 12, 50, 55, 94
6. Policy and Environmental Requirements	- Awareness of national policies and priorities - Alignment of programs with macro goals - Organizational insight and environmental awareness - Organizational mission orientation	44, 51, 71, 72
7. Evaluation and Feedback System Dynamics	- Self-evaluation and performance assessment - Institutionalizing feedback culture - Using stakeholder feedback - Evaluation and performance monitoring	45, 54, 61, 95

The results of the selective coding are presented in Table 3.

Table 3. Results of Selective Coding

No.	Core Categories	Subcategories	Selective Statement (Central Concept)
1	Technological and Financial Infrastructure	- Access to modern educational technologies - Provision of sustainable financial resources - Resolution of technical and communication issues - Development of an efficient educational portal	The existence of efficient technical and financial infrastructure is a prerequisite for the successful implementation of continuous training programs in universities.
2	Managerial Leadership and Support	- Continuous managerial support and backing - Commitment of senior management to employee training - Creation of a secure, trusting, and participatory environment - Development of clear policies and programs	Supportive leadership and committed managers play a vital role in enhancing employee motivation and participation in continuous training.
3	Learning Organizational Culture	- Institutionalizing continuous learning - Strengthening feedback, self-assessment, and accountability - Embracing	A culture that values learning, feedback, and knowledge sharing provides a sustainable

		change and innovation - Creating an open environment for interaction and critical thinking	foundation for the development of continuous training.
4	Educational Interaction and Networking	- Knowledge and experience sharing - Inter-university and professional communication - Utilization of social networks in education	Horizontal and networked interactions among employees and universities lead to experience exchange and improvement in continuous training quality.
5	Employee Commitment and Motivation	- Self-assessment and personal growth - Commitment to lifelong learning - Acceptance of professional responsibility - Self-efficacy and informed decision-making	Individual commitment to learning and belief in self-development serve as internal driving forces for achieving continuous training.

The findings from selective coding indicate that continuous training reaches genuine development only when three key elements—infrastructure, supportive leadership, and learning culture—interact synergistically. These three dimensions not only facilitate employees' personal growth but also promote organizational cohesion and sustainability in learning.

Based on the results of the above tables, the contextual factors were extracted and prioritized as follows:

Table 4. Prioritization of Contextual Factors

Rank	Contextual Factor	Conceptual Importance
1	Managerial Support and Leadership	Very High
2	University Infrastructure and Supportive Resources	Very High
3	Organizational Culture and Employees' Attitude toward Training	High
4	Evaluation and Feedback System Dynamics	High
5	Technological Capability and Digital Skills	Moderate to High
6	Participation, Interaction, and Organizational Networking	Moderate
7	Policy and Environmental Requirements	Moderate

Discussion and Conclusion

The purpose of this study was to identify and prioritize the contextual factors influencing the improvement of continuous training for employees in universities of Baghdad Province. Based on grounded theory analysis, seven major contextual categories were identified—managerial support and leadership, university infrastructure and supportive resources, organizational culture and employees' attitude toward training, evaluation and feedback system dynamics, technological capability and digital skills, organizational networking and participation, and policy and environmental requirements. The hierarchical prioritization of these factors revealed that managerial support and leadership and infrastructure and supportive resources occupy the highest positions, followed by organizational culture and evaluation system dynamics, while the remaining factors exert indirect but meaningful influence.

The study found that managerial support and leadership play a pivotal role in fostering motivation, participation, and sustained engagement in continuous training programs. This aligns with the extensive body of research emphasizing that leadership commitment and trust-building form the foundation for successful professional development systems. In Iraqi universities, where hierarchical decision-making and bureaucratic traditions remain strong, leadership that is participatory, inspirational, and supportive can create an environment conducive to lifelong learning (5). Prior findings indicate that managerial commitment enhances employees' willingness to engage in continuous learning and translates organizational strategies into actionable learning outcomes (7).

Supportive leadership also mediates the relationship between training and organizational culture, as managers set the tone for openness, feedback, and innovation. Studies in organizational behavior show that leaders who model reflective learning and intellectual humility increase staff commitment to growth (3). Leadership practices such as mentoring, consultation, and participant modeling directly strengthen the transfer of learning to the workplace (10). Within the context of Iraqi universities, this means that rectors, deans, and department heads must not only allocate resources but also demonstrate visible participation in training initiatives. Leadership characterized by empathy, empowerment, and clear communication enables employees to perceive continuous training as an institutional value rather than an administrative obligation (8).

These findings corroborate the broader theoretical perspective of learning organizations, where leadership is viewed as the engine of continuous improvement. According to organizational learning models, such as those proposed by (7), disruptions and resource constraints can be transformed into learning opportunities when leaders provide psychological safety and strategic direction. This underscores that leadership development for academic and administrative managers should itself become part of the continuous training ecosystem, ensuring sustainability and cascading effects across university hierarchies.

The second key finding highlights the role of infrastructure—both technological and financial—as an enabling condition for effective continuous training. Participants emphasized that the absence of stable internet connectivity, functional digital platforms, and adequate funding severely constrains implementation. These results align with previous research indicating that access to digital technologies, e-learning systems, and sufficient funding are prerequisites for high-quality professional development (12). The integration of modern educational technologies and digital tools not only increases accessibility but also supports individualized learning trajectories and competency tracking (14).

Internationally, universities have adopted blended and online learning modalities to make continuing education scalable and sustainable. However, the successful adoption of such models requires institutional commitment to maintenance, technical support, and professional development for trainers (11). In Iraq, where public universities often face budgetary limitations, the creation of inter-university clusters and shared learning platforms could mitigate costs and promote standardization, echoing the "innovative cluster model" approach suggested by (12). The emphasis on infrastructure in this study reflects a broader consensus that technological readiness and resource adequacy determine whether training initiatives achieve their intended outcomes or remain symbolic exercises.

Moreover, the grounded data revealed that financial constraints often lead to unequal participation in training activities, with staff in well-funded faculties accessing more opportunities. Similar inequities have been reported in studies of continuing medical education in Iran, where limited financial resources and fragmented planning resulted in inconsistent quality (13). Consequently, the improvement of infrastructure and resources should be viewed as a strategic investment, ensuring not only equitable access but also institutional accountability for results.

The third major finding—organizational culture and attitudes toward training—reinforces the argument that the success of any professional development system depends on the extent to which continuous learning is embedded in the institution's identity. In this study, participants associated strong learning cultures with respect, collaboration, and openness to feedback. These perceptions are consistent with the conceptual framework of lifelong learning articulated by (2), which positions culture as a determinant of learner autonomy and sustained engagement.

A positive organizational culture mediates between structural provisions (like infrastructure and policy) and individual behaviors. When employees believe that learning is valued and rewarded, participation increases. Conversely, cultures of compliance or indifference undermine motivation even when facilities and leadership are in place (5). Prior evidence from educational institutions shows that when staff internalize the organizational mission, they exhibit higher accountability and initiative in professional learning (18). This supports the study's finding that belief in the university's mission strengthens commitment to continuous training.

Additionally, reflective and feedback-oriented cultures encourage critical inquiry and problem-solving—skills essential for modern academic environments (9). As (8) demonstrated, action learning interventions that emphasize reflection, collaboration, and experimentation produce lasting cultural transformation in professional settings. In Iraqi universities, this suggests the need for structured mechanisms such as learning circles, peer review systems, and recognition programs that reinforce learning behaviors.

The study also found that dynamic evaluation and feedback mechanisms are crucial for sustaining quality in continuous training. Participants emphasized the importance of self-assessment, stakeholder feedback, and systematic monitoring. These findings align with the perspective that effective learning systems incorporate iterative evaluation cycles—planning, implementation, review, and improvement (21). Theoretical models of grounded learning highlight that continuous feedback closes the loop between learning design and real-world performance (7).

Comparative studies in continuing medical education support this conclusion. (20) demonstrated that evaluation indicators such as relevance, effectiveness, and transferability are key determinants of perceived quality in in-service training. Similarly, (16) found that regular monitoring of participants' progress ensures alignment between educational programs and institutional needs. In Baghdad universities, where evaluation practices often rely on quantitative participation data, introducing qualitative and formative feedback processes can enhance both engagement and program credibility.

Feedback-driven evaluation also fosters self-regulation and metacognitive awareness among staff, encouraging them to reflect on strengths, weaknesses, and future development goals. This perspective echoes the principles of self-directed learning in HRD theory (3). Continuous feedback thus serves dual purposes—accountability for institutions and empowerment for individuals.

The findings identified digital literacy and technological proficiency as moderate to high-impact contextual factors. In the post-pandemic educational landscape, digital skills have become integral to professional competence. The study's participants highlighted the need for training in the use of learning management systems, online collaboration platforms, and data analytics tools. Previous research confirms that digital capability enhances instructional quality, communication efficiency, and adaptive learning design (14). Moreover, the effective use of social networks and digital communities supports informal learning and experience sharing (19).

This finding is consistent with the literature on blended and technology-enhanced education, which positions digital competence as a meta-skill enabling lifelong learning (17). In environments where digital transformation is uneven, targeted investment in staff capacity building becomes essential. The Iraqi higher education system, in particular, requires structured digital literacy frameworks to ensure that all employees—academic and administrative—can leverage technology for learning and performance improvement.

Another important finding is the role of collaboration, participation, and inter-university networking in advancing the quality of continuous training. The analysis revealed that professional networks facilitate knowledge sharing, benchmarking, and collective problem-solving. Similar results were reported in cluster-based educational models, which emphasize shared governance and collaborative capacity development (12). These models resonate with lifelong learning principles that advocate for boundary-spanning learning communities (11).

Evidence from school and higher education contexts further underscores that collaboration enhances reflective practice, peer learning, and innovation diffusion (10, 19). Therefore, building horizontal linkages among universities in Baghdad—through communities of practice, joint workshops, and virtual learning alliances—can sustain a culture of mutual support and resource optimization.

Finally, policy alignment and environmental awareness were identified as contextual factors of moderate influence. Participants stressed the necessity of synchronizing institutional training programs with national strategies and higher education reform policies. This corresponds with findings that institutional effectiveness increases when staff development is linked to macro-level educational goals and policy frameworks (11). Nationally coherent approaches to continuous learning, as discussed by (1), ensure that universities function not in isolation but as components of a national knowledge ecosystem.

In Iraq, where educational governance is undergoing modernization, universities must interpret and operationalize these macro-policies through contextually relevant programs. The institutionalization of continuous training within performance management systems can transform it from an ad hoc activity into a policy-driven process. The study's findings support the argument that policy coherence enhances accountability, funding continuity, and stakeholder trust.

Taken together, the results of this study reveal a synergistic model: leadership, infrastructure, and culture constitute the core enabling system, while technology, networking, evaluation, and policy serve as amplifying conditions. This triadic framework aligns with earlier international research that conceptualizes lifelong learning ecosystems as complex adaptive systems requiring structural, cultural, and relational alignment (2, 7, 17). Within the Iraqi context, the study contributes by offering an empirically grounded framework that captures how contextual interdependencies—such as leadership behaviors, resource adequacy, and organizational norms—shape the implementation of continuous training.

By drawing from both global theories and regional realities, this research bridges the gap between abstract models of lifelong learning and the lived experiences of university employees. It confirms that sustainable professional development is not solely a pedagogical issue but a systemic one involving governance, infrastructure, and values. When these elements interact positively, universities evolve into learning organizations capable of continuous adaptation and innovation (5, 8, 21).

This study, while comprehensive in scope, has several limitations. First, the qualitative approach—based on semi-structured interviews with 15 experts—limits the generalizability of the findings beyond the sampled universities. The perspectives captured reflect primarily academic staff and managers in Baghdad Province, and may not fully represent variations across other Iraqi regions or private institutions with different governance models. Second, data were collected at a single point in time, which constrains the ability to trace changes in contextual factors longitudinally. Third, despite methodological rigor in coding, the interpretation of qualitative data inherently involves subjectivity, which may have influenced category formation and prioritization. Finally, resource and time limitations prevented triangulation through document analysis or observation, which could have enriched data validity and contextual understanding.

Future research should employ mixed-methods or longitudinal designs to examine how contextual factors evolve over time and interact with performance outcomes. Quantitative validation of the model through structural equation modeling (SEM) could test causal relationships among leadership, infrastructure, culture, and training effectiveness. Comparative studies between Iraqi universities and those in neighboring countries would reveal regional differences and best practices in continuous training governance. Moreover, exploring the perspectives of non-academic staff, students, and policymakers would provide a more holistic view of the ecosystem. Finally, experimental or quasi-experimental studies could evaluate specific interventions—such as digital literacy programs, feedback systems, or leadership development initiatives—to assess their impact on staff motivation, learning transfer, and institutional performance.

University administrators should integrate continuous training into strategic planning, ensuring that funding, infrastructure, and leadership development are sustained priorities. Building digital learning platforms and shared inter-university networks can optimize resource utilization and foster collaboration. Leaders at all levels should be trained to model reflective practice, provide feedback, and reward innovation. Institutions should embed evaluation and feedback loops into all training activities, using both quantitative and qualitative indicators to drive improvement. Cultivating a culture that values learning, accountability, and openness will transform continuous training from a procedural requirement into a dynamic driver of organizational growth. Finally, aligning staff development policies with national higher education strategies will strengthen institutional legitimacy and ensure that universities in Baghdad remain agile, competitive, and future-ready.

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Authors' Contributions

All authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

All ethical principles were adhered in conducting and writing this article.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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References

1. Duke C, Hinzen H. Youth and adult education within lifelong learning: Claims and challenges. Development. 2010;53(4):465-70. doi: 10.1057/dev.2010.67.
2. Candy P, Crebert G, O'Leary J. Developing lifelong learners through undergraduate education: NBEET commissioned report. Canberra: AGPS; 1994.
3. Ellinger AD. The concept of self-directed learning and its implications for human resource development. Advances in Developing Human Resources. 2004;6(2):158-77. doi: 10.1177/1523422304263327.
4. Super DE, Savickas ML, Super CM. The life-Span, life-Space approach to careers. In: Brown D, Brooks L, editors. Career Choice & Development. San Francisco, CA: Jossey-Bass Publishers; 1996.
5. Ali BJ, Ismail FB, Hamawandy NM, Abdul Kareem F, Fattah JJ, Majid AA, et al. Organizational culture effect in the relationship between training development and academic performance in the public Iraqi universities. Journal of Information Systems Engineering and Management. 2025;10(21s). doi: 10.52783/jisem.v10i21s.3406.
6. Dakhil ZA, Skuk M, Al-Jorani M. Challenges faced by Iraqi academics in career advancement and promotion: A survey-based study. Learning and Teaching: The International Journal of Higher Education in the Social Sciences. 2024;17(1):107-21. doi: 10.3167/latiss.2024.170106.
7. Anderson Jr EG, Lewis K. A dynamic model of individual and collective learning amid disruption. Organization Science. 2014;25(2):356-76. doi: 10.1287/orsc.2013.0854.
8. McCray J, Warwick R, Palmer A. Impressions of action and critical action learning: exploring the leadership development of senior doctors in an English healthcare organization. International Journal of Training and Development. 2018;22(1):69-85. doi: 10.1111/ijtd.12119.

9. Lohman MC. Cultivating problem-solving skills through problem-based approaches to professional development. Human Resource Development Quarterly. 2002;13(3):243-63. doi: 10.1002/hrdq.1029.
10. Hagermoser Sanetti LM, Williamson KM, Long AC, Kratochwill TR. Increasing in-service teacher implementation of classroom management practices through consultation, implementation planning, and participant modeling. Journal of Positive Behavior Interventions. 2018;20(1):43-59. doi: 10.1177/1098300717722357.
11. Popescu AI. Essentials of university strategy development in the field of lifelong learning. European Journal of Interdisciplinary Studies. 2012;4(1):31-44.
12. Akhmedov BA. Innovative cluster model for improving the quality of education. Academic Research in Educational Sciences. 2021;2(3):528-34.
13. Ebadi A, Vanaki Z, Nahrir B, Hekmatpou D. Pathology of continuing educational programs in Iran medical society. Strides in Development of Medical Education. 2008;4(2):140-5.
14. Sadeghitabar P, Shariatmadari M. Identifying the Dimensions and Components of Continuing Medical Education Based on Blended Learning with a Sustainable Development Approach. Environmental Education and Sustainable Development Quarterly. 2020;9(2):63-82.
15. Ataei M, Safarian Hamadani S, Zameni F. Presenting an Effective Teaching Model in Continuing Medical Education Programs. Journal of Mazandaran University of Medical Sciences. 2019;29(176):202-7.
16. Sheikhi Alizadeh M, Hosseinpour M, Bahmaee L. Identifying Factors Affecting the Development of Continuing Medical Education at the University of Medical Sciences. Razi Journal of Medical Sciences (Iran University of Medical Sciences Journal). 2022;29(8):119-27.
17. Buendia A, Morales C. A new educational paradigm for evolving development. World Futures: The Journal of General Evolution. 2003;59(8):561-8. doi: 10.1080/713747093.
18. Farstakhah M. Under the skin of Iran's humanities, the duel between activists and structures. Two Quarterly Journals of Humanities Development. 2020;2(4):5-18.
19. Dewi Mallarangan AD, Rahman A, Nur S, Khusnul Lathifah Z, Lubis FM. Analysis of the influence of continuous training development and education on professional competence of teachers in public schools. Organization Science. 2024;6(2):13449-56.
20. Yousefi Z, Imani MT, Jahed H. Prioritizing the Dimensions, Components, and Indicators for Enhancing the Effectiveness of In-Service Training Courses for the Central Staff of the Ministry of Health, Treatment, and Medical Education. Health and Treatment Management. 2023.
21. Strauss A, Corbin J. Basics of qualitative research: Techniques and procedures for developing grounded theory. In: nd, editor. Thousand Oaks, CA: Sage Publications; 1998.