



**The Impact of Creative Thinking Skills on Reducing Job Burnout
An analytical study of the opinions of a sample of employees in a
number of private universities in Erbil Governorate - Kurdistan
Region of Iraq***

Faeza Mahdi Abdulazeez⁽¹⁾, Jamal Ahmed Hama Kareem⁽²⁾

Soran University⁽¹⁾, University of Sulaimani⁽²⁾

(1) faeza.abdulazeez@soran.edu.iq (2) jamal.hama@univsul.edu.iq

Key words:

Creative thinking, job burnout, Erbil Governorate private universities, Kurdistan Region.

ARTICLE INFO

Article history:

Received	15 Jul. 2025
Accepted	29 Jul. 2025
Avaliabble online	31 Dec. 2025

© 2025 THE AUTHOR(S). THIS IS AN OPEN ACCESS ARTICLE DISTRIBUTED UNDER THE TERMS OF THE CREATIVE COMMONS ATTRIBUTION LICENSE (CC BY 4.0).

<https://creativecommons.org/licenses/by/4.0/>



*Corresponding author:

Faeza Mahdi Abdulazeez
Soran University

Abstract:

This study aims to investigate the impact of creative thinking skills in reducing job burnout among employees at private universities in Erbil, Kurdistan Region, Iraq. The research follows a positivist quantitative methodology, utilizing a structured questionnaire grounded in Torrance's model of creativity and the Maslach Burnout Inventory. The study population comprises approximately 1,200 academic and administrative employees from nine private universities, from which a sample of 387 respondents representing around 32% of the population was selected using stratified random sampling. Creative thinking was measured across four key dimensions: originality, fluency, flexibility, and elaboration, while burnout was assessed through emotional exhaustion, depersonalization, and reduced personal accomplishment. Data were analyzed using descriptive statistics, correlation, and regression techniques. The findings indicate that creative thinking skills play a significant role in alleviating job burnout. Specifically, enhancing employees' creative capacities fosters greater resilience, emotional well-being, and job satisfaction. The study recommends implementing creativity-development programs, collaborative learning strategies, and problem-solving workshops to cultivate healthier and more adaptive academic environments. This research contributes to the limited body of regional literature on workplace mental health and offers practical insights for improving staff performance and retention in the private higher education sector.

*The research is extracted from a master's thesis of the first researcher.

أثر مهارات التفكير الإبداعي في الحد من الاحتراف الوظيفي دراسة تحليلية لآراء عينة من العاملين في عدد من الجامعات الخاصة في محافظة أربيل - إقليم كوردستان العراق*

الباحثة: فايزه مهدي عبدالعزيز
أ.م.د. جمال احمد حمه كريم
جامعة سوران - كلية الحقوق والعلوم السياسية والإدارة جامعة السليمانية - كلية الإدارة والاقتصاد
jamal.hama@univsul.edu.iq faeza.abdulazez@soran.edu.iq

المستخلص

يهدف البحث إلى دراسة تأثير مهارات التفكير الإبداعي في الحد من ظاهرة الإرهاق الوظيفي بين الموظفين في الجامعات الخاصة في أربيل، إقليم كردستان العراق. يتبع البحث منهجية كمية إيجابية، باستخدام استبيان منظم قائم على نموذج تورانس للإبداع ومقاييس ماسلاش للإرهاق الوظيفي. يتكون مجتمع الدراسة من حوالي 1200 موظف أكاديمي وإداري من تسع جامعات خاصة، تم اختيار عينة من 387 مستجبياً - يمثلون حوالي 32٪ من السكان - باستخدام أخذ العينات العشوائية الطبقية. تم قياس التفكير الإبداعي من خلال أربعة أبعاد رئيسية: الأصلة والطلاقة والمرونة والإسهام، في حين تم تقييم الإرهاق الوظيفي من خلال الإرهاق العاطفي وتجريد الشخصية وانخفاض الإنجاز الشخصي. وتم تحليل البيانات باستخدام الإحصاء الوصفي والارتباط وتقنيات الانحدار. لذا تشير النتائج إلى أن مهارات التفكير الإبداعي تلعب دوراً مهماً في التخفيف من الإرهاق الوظيفي على وجه التحديد، فإن تعزيز القدرات الإبداعية للموظفين يعزز المرونة والرفاهية العاطفية والرضا الوظيفي. توصي الدراسة بتطبيق برامج لتنمية الإبداع، واستراتيجيات التعلم التعاوني، وورش عمل لحل المشكلات، بهدف تهيئة بيئة أكاديمية أكثر صحةً وتكيفاً. يُسهم هذا البحث في إثراء الأدباليات الإقليمية المحدودة حول الصحة النفسية في مكان العمل، ويُقدم رؤى عملية لتحسين أداء الموظفين واستبقائهم في قطاع التعليم العالي الخاص.

الكلمات المفتاحية: التفكير الإبداعي، الإرهاق الوظيفي، الجامعات الخاصة في محافظة أربيل، إقليم كوردستان.

1. Background of the Study

1. Introduction

Burnout, characterized by emotional, mental, and physical exhaustion due to prolonged work stressors like heavy workload, limited autonomy, and poor social support, has become a widespread issue in modern workplaces (Maslach & Leiter, 2016). Originally described by Freudenberger in the 1970s in caregiving roles, burnout now affects multiple sectors, threatening both employee health and organizational performance (Du *et al.*, 2024; Zanjani *et al.*, 2021). In private universities in Erbil, Kurdistan Region, employees face emotional labor, overwork, and complex interpersonal challenges, leading to fatigue, low motivation, and decreased job performance (Kafeel *et al.*, 2023). Burnout contributes to reduced productivity, absenteeism, dissatisfaction, and turnover (Kim, 2006). Although

* البحث مستقل من رسالة ماجستير للباحث الأول.

public sector workers are often more vulnerable due to bureaucratic pressures (Salama et al., 2022). private sector employees are also at risk.

Creative thinking is increasingly recognized as a critical skill to mitigate burnout by enabling effective problem-solving and adaptive stress management under pressure (Rathi *et al.*, 2024; Runco & Jaeger, 2012). Research shows that highly creative employees possess stronger teamwork and problem-solving abilities that help counteract burnout effects (Nasir, 2018). In educational contexts, project-based and STEM learning foster creativity, collaboration, and resilience (Putri *et al.*, 2021). Flexible thinkers maintain emotional control and reduce helplessness associated with burnout (Savira *et al.*, 2022). Creativity also promotes work-life balance and a positive organizational culture (Sukarso *et al.*, 2022; Yang *et al.*, 2023). Given the stressors in Erbil's private universities, these institutions provide an ideal setting to explore how creative thinking reduces burnout by enhancing coping, resilience, and reducing monotony (Ladjini & Benaissi, 2024).

Importantly, problem-solving creativity can be developed through formal training and professional development, including collaborative learning and project-based STEM programs (Saputri *et al.*, 2022). Enhancing creativity through project-based learning, Science, Technology, Engineering, Art, Mathematics, and collaboration can equip staff at private universities in Erbil with the skills needed for resilience and innovation. In high-stress environments, creative thinking plays a key role in reducing job burnout by fostering problem-solving and adaptability. Promoting a creative, supportive work culture not only mitigates burnout but also strengthens job satisfaction, institutional performance, and long-term sustainability. Encouraging innovation is thus essential for a thriving academic environment in the Kurdistan Region.

1.2 Problem Statement

Job burnout has become a significant issue within private organizations in the Kurdistan Region of Iraq, particularly among employees at private universities in Erbil. Lecturers frequently face excessive workloads, limited recognition, and insufficient institutional support, factors that contribute substantially to burnout. According to (Maslach & Leiter, 2016), Burnout is a psychological syndrome marked by emotional exhaustion, depersonalization, and a diminished sense of personal accomplishment. These factors not only affect individual well-being but also impair organizational performance. In higher education, burnout negatively impacts both faculty welfare and institutional effectiveness. Academic staff often experience role ambiguity, restricted autonomy, and escalating demands on their time and energy (Sutisnawati & Syahroni, 2018). Additionally, poor workplace relationships and a lack of appreciation intensify dissatisfaction, leading to disengagement and reduced job performance. Perceived injustices, such as unfair task distribution and inadequate rewards, can further heighten emotional strain and depersonalization (Faeq & Ismael, 2022). These conditions may result in absenteeism, job dissatisfaction, and high turnover rates, ultimately harming the university's reputation and productivity.

Amid these challenges, creative thinking is increasingly recognized as a potential protective factor against burnout. It enables individuals to adopt alternative perspectives, solve problems effectively, and manage stress more constructively (Hunsaker et al., 2015). Prior research has linked creativity to enhanced resilience across various professional contexts (Khodour et al., 2015). However, its specific role in alleviating burnout among academic staff in private universities in Erbil remains largely unexplored. This study aims to examine how creative thinking skills can mitigate job burnout. Besides, it significantly contributes to tackling work problems and reducing risks arising from burnout because creative thinking can be successfully learned by means of formal education and professional training (Saputri et al., 2022). Some effective methods for enhancing school creativity include project-based learning, the integration of STEM, and collaborative learning. Private universities in Erbil can thus prepare their staff with competencies for improving creativity and resilience. Secondly, creative thinking is an important element in combating job burnout, especially in high-stress contexts at a Number of Erbil Private Universities of the Kurdistan Region, Iraq.

1. What is the level of creative thinking skills among employees in the academic institutions under study?
2. What is the level of job burnout among employees in the academic institutions under study?
3. What is the nature of the relationship between creative thinking skills and job burnout?
4. Do creative thinking skills have the effect of job burnout in the academic private universities under study?

1.3. Aims and Objectives of the Study

The main objectives of the current study include the followings

1. To assess the level of creative thinking skills among employees in the academic institutions under study.
2. To determine the level of job burnout among employees in the institutions under study.
3. To examine the relationship between creative thinking skills and job burnout among the study sample.
4. To identify the extent to which creative thinking skills impact job burnout in the academic institutions under study.

1.4. Significance of the study

This study makes a valuable contribution both academically and practically by exploring the role of creative thinking in reducing job burnout among employees at private universities in the Kurdistan Region of Iraq. While much of the existing literature addresses burnout across various sectors, little research has focused specifically on academic institutions or considered the influence of creative thinking skills in this context. By filling this gap, the study extends theoretical understandings of burnout, creativity, and employee well-being. Academically, the research emphasizes creative thinking as a strategic tool for managing stress and

enhancing employee well-being, building on existing management literature. It provides a foundation for further research and adds new insights to university libraries in the region.

From a practical perspective, the study offers actionable implications for human resource management and organizational psychology. It encourages the development of creative thinking skills among staff and leaders, helping institutions improve mental health, job satisfaction, and retention rates. These outcomes contribute to a healthier work environment and better institutional performance. Ultimately, the findings can guide policy and decision-making in private universities, promoting a supportive atmosphere that prioritizes employee welfare and organizational resilience.

2. Literature Review

2.1 Concepts of Creativity and Creative Thinking

Creativity is a multifaceted concept essential to innovation and problem-solving across disciplines. It is viewed as a systematic process involving problem identification, hypothesis generation, and refinement (Gafour & Gafour, 2020). Definitions emphasize both originality and usefulness, producing novel and valuable outcomes (Balci et al., 2023; Runco & Jaeger, 2012). (Brainard, 2024) highlights creativity as “successful exploration” that deepens knowledge beyond productivity. Cross-disciplinary perspectives link creativity with inventive problem-solving (Rahman et al., 2024; Timotheou & Ioannou, 2021). Creative thinking, rooted in (Guilford's, 1950) The divergent thinking theory, involves fluency, flexibility, originality, and elaboration (Yusnaeni et al., 2020), and is critical for future-oriented problem-solving per OECD's PISA 2021 framework (Grey & Morris, 2024). It also relates to metacognitive skills that help manage cognitive resources for innovation (Yusnaeni et al., 2020), (Abdulkhaliq et al., 2024). Educational methods like project-based STEM learning foster these skills (Saputri et al., 2022). Creative thinking drives technological advancements, scientific breakthroughs, and practical solutions, enhancing adaptability and resilience in academic and professional contexts (Aslam et al., 2024; Hasan et al., 2019; Hidayati et al., 2023; Karunaratne & Calma, 2024). From the researcher's perspective, Creativity isn't a natural gift; it's an attitude. Anyone can be creative by embracing the mindset and following where it takes them.

2.2 Creative Thinking Skills Dimensions

Creative thinking is conceptualized through four fundamental dimensions: **originality, fluency, flexibility, and elaboration**, each integral to generating and developing innovative ideas across diverse domains (Choi et al., 2022; Runco & Jaeger, 2012). **Originality** denotes the capacity to produce novel and unique ideas, serving as a core component of divergent thinking and fostering innovation in both individual and collaborative contexts (Runco & Alabbasi, 2024; Samaniego et al., 2024). It is essential for advancing creative outcomes that are distinct and impactful. **Fluency** refers to the ability to generate numerous ideas rapidly, emphasizing both quantity and the contextual relevance of ideas. Research

underscores fluency's enhancement through collaborative problem-solving and interdisciplinary learning (Fathonah *et al.*, 2024; Samaniego *et al.*, 2024). **Flexibility** captures cognitive adaptability, enabling individuals to shift perspectives and employ varied strategies to address complex problems (Abdulla *et al.*, 2019). This dimension supports both spontaneous and adaptive responses, which are critical for effective creative performance (Runco & Alabbasi, 2024; Samaniego *et al.*, 2024). **Elaboration** involves the enrichment and expansion of ideas with detail and depth, transforming initial concepts into feasible and sophisticated solutions. Elaboration enhances the practical value and complexity of creative outputs, bridging creativity and applicability (Rowais, 2019; Samaniego *et al.*, 2024). Together, these dimensions provide a comprehensive framework for understanding and cultivating creative thinking skills essential for innovation and problem-solving across academic and professional settings.

2.3 Concept of Job Burnout

Job burnout has become a significant occupational issue, initially associated with human service roles but now recognized across various industries due to rising workplace demands and stress factors (Maslach & Leiter, 2016). Defined as a psychological condition caused by long-term exposure to work-related stress, burnout shows symptoms such as emotional exhaustion, cynicism toward one's job, and decreased professional effectiveness (Adlakha, 2019; MASLACH, 1997). The term was first introduced by Freudenberger in the 1970s to describe fatigue and loss of motivation among aid workers, and later research expanded its scope to include a broader range of employees (Gaur & Jindal, 2023; Wulandari *et al.*, 2024). Importantly, recent studies indicate that Generation Z, known for high technical skills and strong career ambitions, is particularly prone to burnout, showing higher rates than earlier generations (*2023 Gen Z and Millennial Survey*, n.d.; Chen *et al.*, 2023). This demographic change highlights the urgent need for organizational strategies that support well-being, work-life balance, and mental health, to reduce burnout's negative effects on both employees and organizational sustainability. Addressing burnout comprehensively not only protects employee health but also boosts productivity and engagement, ultimately fostering organizational success. From the researcher's perspective on burnout means your body and mind are tired from working or thinking too much for a long time. You feel no energy, no motivation, and you just want to rest or give up.

2.3.1 Job Burnout Dimensions

Burnout is a psychological syndrome resulting from prolonged occupational stress, typically conceptualized through three interrelated dimensions: **emotional exhaustion (EE)**, **depersonalization (DP)**, and **low personal accomplishment (LPA)** (Homayooni *et al.*, 2020; MASLACH, 1997). Together, these dimensions reflect the emotional, interpersonal, and self-evaluative aspects of burnout. **Emotional exhaustion (EE)** is regarded as the central dimension of burnout, characterized by psychological fatigue caused by sustained job stress. It is linked to high job demands, limited support, and low control, often appearing first in high-

stress professions such as healthcare (Conway *et al.*, 2023; Rushton & Pappas, 2020) While early interventions like mindfulness and organizational support can alleviate EE (Fiabane *et al.*, 2021; McFarland & Hlubocky, 2021) Critics argue that focusing only on EE oversimplifies burnout, which also involves DP and LPA (Chen *et al.*, 2025; Leone *et al.*, 2024) **Depersonalization (DP)** involves emotional detachment and cynicism toward work. It often emerges as a coping response to EE but can further impair mental health and workplace performance (Lambert *et al.*, 2022; Nesher Shoshan & Sonnentag, 2020) DP correlates with higher turnover and absenteeism, especially under crisis conditions like the COVID-19 pandemic (Dobnik & Lorber, 2023) However, job resources such as autonomy and supervisor support can buffer its effects, emphasizing the need for organizational strategies addressing all burnout dimensions (Bayani & Baghery, 2020; H. I. Park *et al.*, 2014; Tartakovsky & Orange, 2024) **Low personal accomplishment (LPA)** is marked by feelings of inefficacy and diminished competence. It is influenced by self-efficacy, job satisfaction, and control, and is often viewed as a consequence of EE and DP (Bayani & Baghery, 2020; H. I. Park *et al.*, 2014; Tartakovsky & Orange, 2024). Although LPA is significant, its role in predicting burnout outcomes is less direct than that of EE and DP (Dong *et al.*, 2025). Therefore, interventions focusing solely on personal accomplishment may be insufficient. Holistic strategies enhancing job resources and emotional resilience are recommended (Gniewek *et al.*, 2023; Lee, 2015).

3. Methodology

The study followed a positivist philosophy and a deductive approach to examine the relationship between creative thinking and job burnout using quantitative methods (Y. S. Park *et al.*, 2020; Saunders *et al.*, 2023). A descriptive design and survey strategy were employed to collect data from academic and administrative staff at nine private universities in Erbil (Cooper & Schindler, 2014). Using convenience sampling, a total of 387 valid responses were obtained. This sample size is considered sufficient based on (Krejcie & Morgan, 1970) A widely accepted sample size determination table, which indicates that for a population of over 10,000, a minimum sample size of 384 is statistically adequate to ensure representativeness and generalizability at a 95% confidence level and 5% margin of error. Given that the estimated population of employees across the selected universities exceeds this threshold, the achieved sample size of 387 meets and slightly exceeds the required standard. Furthermore, this size provides sufficient statistical power to conduct robust analyses, such as Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM), which require larger samples to ensure stability and accuracy in parameter estimation. A structured questionnaire measured creative thinking ('E. Paul Torrance', 1974) and job burnout (Maslach & Jackson, 1981), and was administered both online and in-person.

3.1 Research framework

The structure of this paper is a literature review on relevant literature about creative thinking and burnout, presentation of research methodology, reporting and

interpreting the results of correlation and regression analysis in terms of past studies, and a conclusion with key findings, practical suggestions, and recommendations for future research.

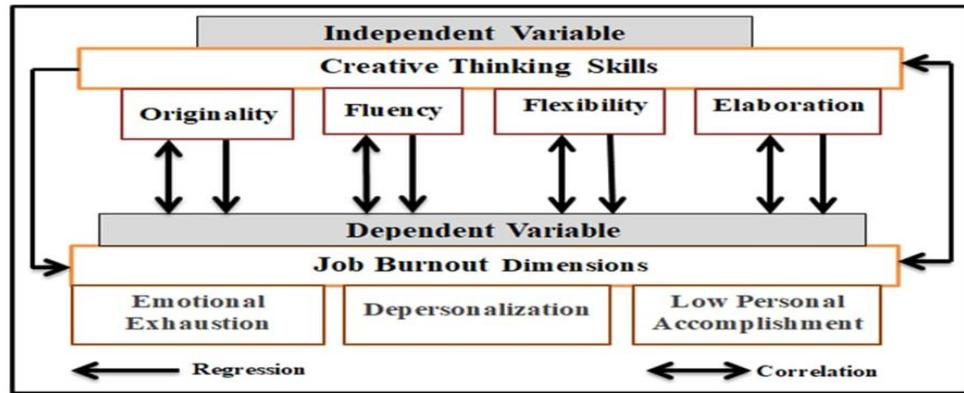


Figure 1: A research framework

Source: (Fathonah *et al.*, 2024; Homayooni *et al.*, 2020)

Table (1): presents the variables selected for this study along with the scientific literature and standard sources that guided their selection, ensuring the accuracy and reliability of the research framework

Table .1 -Source of information for the item questionnaire

Main Variables	Number of Item	Source
Dimensions of creative thinking skills		
Originality	5	
Fluency	5	
Flexibility	5	
Elaboration	5	
Dimensions of job burnout		
Emotional exhaustion	5	
Depersonalization	5	
Low personal accomplishment	5	

3.2 Hypotheses of the Study:

H1: Employees in different private academic institutions differ significantly in their perceptions of creative thinking skills and job burnout.

H2: The ranking and prioritization of the study variables and their dimensions vary depending on institutional reliance and context.

H3: There is a statistically significant relationship between creative thinking skills and job burnout among employees in the study sample.

H4: Creative thinking skills have a statistically significant impact on reducing job burnout in the academic institutions under study.

3.3 Data Pretest`

The reliability of the questionnaire was assessed using Cronbach's Alpha to measure internal consistency. According to Allen and Yen (2001), a Cronbach's Alpha value of 0.60 or higher is considered acceptable for management research. The results showed that all constructs in the study met or exceeded this threshold, confirming that the survey instrument is reliable and consistent for measuring the intended variables. (refer to Table 2)

Table (2) Reliability measurement through alpha-Cronbach method

Variable	Dimensions	Items' No	Reliability Value
Creative Thinking Skills [CRETH]	Originality [ORG]	5	0.795
	Fluency [FLU]	5	0.844
	Flexibility [FLX]	5	0.838
	Elaboration [ELA]	5	0.888
Creative Thinking Skills [CRETH]		20	0.966
Job Burnout [JOBURN]	Emotional exhaustion [EMEX]	5	0.868
	Depersonalization [DEPE]	5	0.770
	Low personal accomplishment [LPAC]	5	0.702
Job Burnout [JOBURN]		15	0.929
Over all questionnaire		35	

Source: Prepared by the researcher based on the outputs of the (SPSS-26) program.

4. Results and Discussions

Section One: Data Analysis Techniques

To ensure analytical rigor, this study utilized IBM SPSS version 26 and AMOS for data analysis. SPSS was employed for descriptive statistics (frequencies, percentages, means, and standard deviations), reliability testing using Cronbach's Alpha, and Exploratory Factor Analysis (EFA) to assess construct validity. Additional diagnostic tests, including

normality (Skewness and Kurtosis), multicollinearity (Tolerance and VIF), and Levene's test for homogeneity of variance, confirmed the appropriateness of parametric testing. AMOS was used for Structural Equation Modeling (SEM) and Confirmatory Factor Analysis (CFA) to examine causal relationships and validate the factor structure. This dual-software approach ensured both statistical robustness and theoretical accuracy in testing the study's hypotheses.

Description of the personal information of the study sample:

The results mentioned in the Table (3) demonstrate a description of the personal characteristics of the study sample in the Private Universities in Erbil of Iraqi Kurdistan Region, which can be reviewed according to the following sections:

Table (3) Demographic information of the study sample

Demographic feature		Frequency	Percent
Gender	Male	208	53.7
	Female	179	46.3
	Total	387	100.0

Age	Under 30 years	99	25.6
	31– 40 years	188	48.6
	41 – 50 years	51	13.2
	Over 50 years	49	12.7
	Total	387	100.0
Educational Qualification	High School	4	1.0
	Diploma	4	1.0
	Bachelor's	47	12.1
	Higher Diploma	9	2.4
	Master's	216	55.8
	PhD	107	27.6
	Total	387	100.0
Length of service in the current job position	Less than 3 years	106	27.4
	5 to 10 years	139	35.9
	More than 7 years	142	36.7
	Total	387	100.0
Length of service at the University	Less than 5 years	173	44.7
	6-10 years	117	30.2
	More than 10 years	97	25.1
	Total	387	100.0

Source: Prepared by the researcher based on the outputs of the (SPSS-26) program.

Section two: Description and diagnosis of study variables and preliminary analysis of results: The variables and its dimensions of the current study will be described and diagnosed in this section, using a number of descriptive statistical indicators and according to the opinions of Employees and teaching staff in the Private Universities in Erbil of Iraqi Kurdistan Region. In addition, it is also devoted to identifying the level of the study dimensions represented by (Creative Thinking Skills, Job Burnout), based on the results of data analysis and according to indicators of percentages, frequencies, means, standard deviation, coefficients of variation, relative importance, and their arrangement.

For this purpose, five-point Likert method is used, which is distributed from the highest weight (5) degrees to represent the answer field (strongly agree) to the lowest weight, which was given (1) degree to represent the answer field (strongly disagree), and between them are three other weights (2-3-4) to represent the answer fields (agree-neutral-disagree) respectively.

A. Description of the independent variable (Creative Thinking Skills):

The independent variable (Creative Thinking Skills) is measured through Four dimensions. Tables (4,5,6,7) show the final results which related to each item of the Creative Thinking Skills variable. The following is a presentation of the most important results related to the responses of sample members regarding each dimension of Creative Thinking Skills

1. Originality Dimension Description

Table (4) presents the results of descriptive statistics for the dimension of Originality, which is represented by five items (X1- X5). The total mean of the Originality dimension is (3.784), standard deviation is (0.658), and the agreement rate reached to (%75.687). Therefore, this indicates that the level of Originality dimension adopted in Private Universities in Erbil of Iraqi Kurdistan Region is high from the point of view of the Employees and teaching staff, and they have a positive view of it.

The table likewise displays that the statement (X1) obtained the highest mean, which states that " I believe I can create innovative and unconventional solutions to everyday problems at work." as it reached (3.884), with standard deviation (0.863), and the coefficient of variation (22.232). While the statement (X2) which states that (I tend to challenge prevailing ideas and concepts and provide innovative alternatives.) has the lowest mean, which is (3.721), with a standard deviation of (0.861), and C.V. equal to (23.128). Generally, the percentages of means of all the items indicate that Originality dimension is important to the individuals in the research sample. In addition, this dimension ranked second among the dimensions in terms of agreement rate.

Table (4) Originality dimension Description

Items	Mean	S.D	C.V.	A.R	Order
X1	3.884	0.863	22.232	77.674	1
X2	3.721	0.861	23.128	74.419	5
X3	3.739	0.891	23.838	74.780	4
X4	3.775	0.904	23.946	75.504	3
X5	3.798	0.919	24.204	75.969	2
Originality	3.784	0.658	17.391	75.687	2nd

Source: prepared by the researcher from the results of (SPSS.26).

2. Fluency Dimension Description

Table (5) demonstrates the consequences of descriptive statistics for the dimension of Fluency variable, which is signified by five items (X6- X10). The total mean for this dimension is (3.787), standard deviation equal to (0.715), and agreement rate (%75.739). This indicates that the agreement of the Employees and teaching staff on item of this dimension is high in Private Universities in Erbil of Iraqi Kurdistan Region, and they have a positive view of it.

It can be realized from the table below that the item (X7) which states that "I can think of different solutions to a specific problem.", obtained the highest mean as it reached to (3.953), with standard deviation of (0.892), and agreement rate of (%77.674). However, the lowest mean is recorded by item (X10) that states "In my workplace, I can present diverse ideas in a short time.", which is (3.669), with S.D. (0.881), and an agreement rate of (%73.385). Therefore, the percentages of means of all the items indicate that Fluency dimension is important to the individuals in the research sample. In addition, this dimension ranked first among the dimensions in terms of agreement rate.

Table (5) Fluency dimension Description

Items	Mean	S.D	C.V.	A.R	Order
X6	3.884	0.881	22.691	77.674	2
X7	3.953	0.892	22.564	79.070	1
X8	3.736	0.956	25.598	74.729	3
X9	3.693	0.942	25.507	73.850	4
X10	3.669	0.881	24.013	73.385	5
Fluency	3.787	0.715	18.869	75.739	1st

Source: prepared by the researcher from the results of (SPSS.26).

3. Flexibility Dimension Description

Table (6) shows the final results related to each of the phrases of the Flexibility dimension, which is represented by five items (X11-X15), through which the degree of harmony and homogeneity in the response of the sample of respondents can be identified. The total mean for this dimension is (3.618), standard deviation is (0.736), and agreement rate is (%72.362). Then, this indicates that the level of Flexibility dimension adopted in in Private Universities in Erbil of Iraqi Kurdistan Region is high from the point of view of the research sample members, and they have a positive view of it.

In term of the items, it is clear that the item (X15) which states that “I can adapt to new requirements or priorities that arise unexpectedly in the work environment.”, has the highest mean as it reached to (3.651), with standard deviation of (0.955), and agreement rate equal to (%73.023). On the other hand, the lowest mean is made by (X11) which states “When faced with a new or complex situation, I can modify my ideas or strategies between different ideas and solutions to deal with it.”, which is (3.589), with standard deviation (0.921), and the agreement rate (%71.783). Hence, this means that the Flexibility dimension has gained attention among the research sample members. In addition, this dimension ranked third among the dimensions in terms of agreement rate.

Table (6) Flexibility Dimension Description

Items	Mean	S.D	C.V.	A.R	Order
X11	3.589	0.921	25.671	71.783	5
X12	3.599	0.959	26.640	71.990	4
X13	3.641	0.959	26.343	72.817	2
X14	3.610	0.930	25.772	72.196	3
X15	3.651	0.955	26.151	73.023	1
Flexibility	3.618	0.736	20.343	72.362	3rd

Source: prepared by the researcher from the results of (SPSS.26)

4. Elaboration Dimension Description

Table (7) point out the final results related to each phrase of the Elaboration dimension, which is represented by five items (X16-X20), through which the degree of homogeneity in the response of the sample of respondents can be

recognized. The total mean for this dimension is (3.606), standard deviation is (0.833), and agreement rate is (%72.114). Therefore, this indicates that the level of Elaboration dimension adopted in Private Universities in Erbil of Iraqi Kurdistan Region is high from the point of view of the research sample members, and they have a positive view of it.

As can be seen from the data in the table, it is clear that the item (X18) which states "Before starting a new task, I assess the situation, allocate resources effectively, and plan the best approach to achieve optimal results" got the highest mean as it reached (3.674) and with a standard deviation of (1.017) and a agreement rate of (%73.488). In contrast, the item (X16) that states "I prepare in advance by organizing my thoughts and gathering relevant information before solving a problem or completing a task." has the lowest mean, which is (3.527), with a standard deviation (1.046), and the agreement rate of (%70.543). Therefore, this means that Elaboration dimension has gained attention among the research sample members. In addition, this dimension ranked fourth among the dimensions in terms of agreement rate.

Table (7) Elaboration Dimension Description

Items	Mean	S.D	C.V.	A.R	Order
X16	3.527	1.046	29.661	70.543	5
X17	3.612	1.013	28.051	72.240	2
X18	3.674	1.017	27.669	73.488	1
X19	3.602	0.980	27.207	72.041	4
X20	3.610	0.969	26.830	72.196	3
Elaboration	3.606	0.833	23.104	72.114	4 th

Source: prepared by the researcher from the results of (SPSS.26).

To sum up, the data from table (4,5,6,7) proves that all the items related to the Creative Thinking Skills variable obtained a high level of mean, which indicates that there is a high level of awareness among the employees and teaching staff about the content of the questionnaire statements regarding the Private Universities in Erbil of Iraqi Kurdistan Region. *Therefore, to answer the First research question, the level of the Creative Thinking Skills variable is high from the point of view of employees and teaching staff in the private universities in Erbil city.* As well as *The first sub-hypothesis of the first main hypothesis is accepted which states "There are significant differences among respondents from private academic universities in their perceptions of the Creative Thinking Skills variable"*

B. Description of the dependent variable (Job Burnout)

The dependent variable Job Burnout is measured through three dimensions. Tables (8,9, and 10) show the final results which related to each item of the Job Burnout variable. The following is a presentation of the most important results related to the responses of sample members regarding each dimension of Job Burnout.

1. Emotional exhaustion Dimension Description

The data from Table (8) confirms the results of descriptive statistics for the dimension of Emotional exhaustion, which is represented by five items (Y1-Y5). The total mean for this dimension is (3.019), standard deviation (0.963), and agreement rate (%60.380). Therefore, this indicates that the level of Emotional exhaustion dimension that adopted in Private Universities in Erbil of Iraqi Kurdistan Region is Average from the point of view of the research sample members.

As for the level of statements, it can be noticed from table (8) that the item which contributed most to enrich this dimension and take the first rank is the item (Y1) which states "I experience emotional exhaustion due to continuous pressure in my work environment, which affects my ability to complete daily tasks.", with the highest mean (3.313), standard deviation (1.191) and agreement rate (%66.253). While, the lowest mean is related to the statement (Y2) which states "I feel frustrated or emotionally helpless while performing my tasks." With a mean (2.873), standard deviation (1.168) and agreement rate (%57.468). Therefore, this means that the Emotional exhaustion dimension has gained an average attention among the research sample members. In addition, this dimension ranked third among the dimensions.

Table (8) Emotional exhaustion Dimension Description

Items	Mean	S.D	C.V.	A.R	Order
Y1	3.313	1.191	35.941	66.253	1
Y2	2.873	1.168	40.657	57.468	5
Y3	2.956	1.209	40.900	59.121	3
Y4	2.889	1.215	42.072	57.778	4
Y5	3.041	1.223	40.212	60.827	2
Emotional exhaustion	3.019	0.963	31.893	60.380	3 rd

Source: prepared by the researcher from the results of (SPSS.26)

2. Depersonalization Dimension Description

Table (9) realizes the results of descriptive statistics for the dimension of Depersonalization, which is represented by five items (Y6-Y10). The total mean of the Depersonalization dimension is (3.294), standard deviation is (0.851), and the agreement rate reached to (%65.876). Therefore, this indicates that the level of Depersonalization dimension adopted in Private Universities in Erbil of Iraqi Kurdistan Region is Average from the point of view of the research sample members.

In term of the items, it can be said from table (9) that the item which contributed most to enrich this dimension is item (Y9) which states " I find that a lack of appreciation leads to feelings of frustration or a decline in performance.", with the highest mean (3.556), standard deviation (1.184) and agreement rate (%71.111). However, the lowest mean is recorded by the statement (Y8) which states "I find it difficult to adapt to technological changes, new work methods, and frequent changes in tasks or work structure." With a mean (2.770), standard deviation

(1.276), and agreement rate (%55.401). Therefore, this means that the Depersonalization dimension has gained an average attention among the research sample members. In addition, this dimension ranked first among the dimensions.

Table (9) Depersonalization Dimension Description

Items	Mean	S.D	C.V.	A.R	Order
Y6	3.305	1.187	35.922	66.098	4
Y7	3.416	1.143	33.451	68.320	3
Y8	2.770	1.276	46.067	55.401	5
Y9	3.556	1.184	33.314	71.111	1
Y10	3.426	1.100	32.090	68.527	2
Depersonalization	3.294	0.851	25.850	65.876	1st

Source: prepared by the researcher from the results of (SPSS.26).

3. Low personal accomplishment Dimension Description

Table (10) shows the results of descriptive statistics for the dimension of Low personal accomplishment, which is represented by five items (Y11-Y15). The total mean for this dimension is (3.147), standard deviation (1.023), and agreement rate (%62.938). Hence, this indicates that the level of Low personal accomplishment dimension adopted in Private Universities in Erbil of Iraqi Kurdistan Region is Average from the point of view of the research sample members.

As for the level of statements, it can be noticed from table (10) that the item which contributed most to enrich this dimension and that took the first rank is the item (Y13) which states "I have difficulty motivating myself to improve my performance at work due to the routine of repetitive tasks.", with the highest mean (3.315), standard deviation (1.144) and agreement rate (%66.305). While the lowest mean is related to the statement (Y15), which states "I feel excessive pressure due to my inability to complete tasks efficiently." With a mean (2.884), standard deviation (1.293), and agreement rate (%57.674). Therefore, this means that the Low personal accomplishment dimension has gained an average attention among the research sample members. In addition, this dimension ranked second among the dimensions.

Table (10) Low personal accomplishment Dimension Description

Items	Mean	S.D	C.V.	A.R	Order
Y11	2.928	1.273	43.498	58.553	4
Y12	3.279	1.152	35.118	65.581	3
Y13	3.315	1.144	34.520	66.305	1
Y14	3.222	1.203	37.343	64.444	2
Y15	2.884	1.293	44.853	57.674	5
Low personal accomplishment	3.147	1.023	32.501	62.938	2nd

Source: prepared by the researcher from the results of (SPSS.26).

Therefore, the results contained in Tables (8,9, and 10), indicate that all the statements have obtained an average level of mean, and this indicates that there is a percentage of average perception among the employees and teaching of the study sample towards the content of the questionnaire statements designated for the variable of Job Burnout in Private Universities in Erbil of Iraqi Kurdistan Region, and thus to answer the second research question, the level of the Job Burnout variable is average from the point of view of employees and teaching staff in the private universities in Erbil city.” ***As well as the second sub-hypothesis of the first main hypothesis is accepted, which states “There are significant differences among respondents from private academic universities in their perceptions of the Job Burnout variable.”***

C: Ordinal Importance of the Study Dimensions:

To identify the levels of importance of the study variable and their dimensions in Private Universities in Erbil of Iraqi Kurdistan Region, and according to the results of the study’s description of variables and their dimensions, the ordinal importance of the Dimensions study variables can be realized.

1. Ordinal Importance of Creative Thinking Skills:

It is understandable from the results of the analysis in the table (11), which presents a number of measures of the Creative Thinking Skills variable and its dimensions, represented by (the mean, standard deviation, C.V., and rate of agreement) that the rate of agreement for the Creative Thinking Skills reached (%73.976). This indicates that this variable is important from the perspective of the study sample. In addition, table (11) point out the Ordinal importance of the dimensions of Creative Thinking Skills, where it is shown that Fluency dimension is the highest with a mean (3.787), as it has the first rank in relative importance, followed by Originality in second rank in terms of relative importance with a mean (3.784), and the third rank in relative importance is recorded by Flexibility dimension with a mean (3.618). As for the last rank, it is related to the Elaboration dimension of relative importance with mean (3.606).

Table (11) Ordinal Importance of Creative Thinking Skills Dimensions

Item	Mean	S.D	C.V.	A.R	Order
Originality	3.784	0.658	17.391	75.687	2 nd
Fluency	3.787	0.715	18.869	75.739	1 st
Flexibility	3.618	0.736	20.343	72.362	3 rd
Elaboration	3.606	0.833	23.104	72.114	4 th
Creative Thinking Skills	3.699	0.730	19.741	73.976	First

Source: prepared by the researcher from the results of (SPSS.26).

Therefore, the results contained in Table (11) confirm ***the acceptance of the first sub-hypothesis of the second main hypothesis, which states: “The ranking importance of the Creative Thinking Skills and its dimensions varies depending on the nature of their reliance on them by the academic private universities under study surveyed.”***

2. Ordinal Importance of Job Burnout:

Table (12) indicates the Ordinal importance of Job Burnout dimensions. It is clear that the dimension of Depersonalization has the first rank in relative importance, with a mean (3.294), followed by the dimension of Low personal accomplishment, which came in second place in terms of relative importance, with a mean (3.147). while the last rank is related to Emotional exhaustion in terms of relative importance with mean (3.019)

Table (12) Ordinal Importance of Job Burnout Dimensions

Item	Mean	S. D	C.V.	A. R	Order
Emotional exhaustion	3.019	0.963	31.893	60.380	3 rd
Depersonalization	3.294	0.851	25.850	65.876	1 st
Low personal accomplishment	3.147	1.023	32.501	62.938	2 nd
Job Burnout	3.153	0.925	29.327	63.064	second

Source: prepared by the researcher from the results of (SPSS.26).

Therefore, the results contained in Table (12) **confirm the acceptance of the first sub-hypothesis of the second main hypothesis**, which states: "The ranking importance of the Job Burnout and its dimensions varies depending on the nature of their reliance on them by the academic private universities under study surveyed."

Thus, the ordinal importance of variables study and its dimensions differs according to the nature of reliance on it by Private Universities in Erbil of Iraqi Kurdistan Region. **Hence, the second main hypothesis is accepted, which states "The ranking importance of the study variables and their dimensions varies depending on the nature of their reliance on them by the academic institutions under study surveyed."**

Section Three: Testing hypotheses of correlations between study variables

In this section, the results of testing and analyzing the correlations between the study variables will be discussed, in accordance with the main and sub-hypotheses, as they will be tested successively according to what is stated in the study methodology according to the hypothetical study plan. In order to identify the nature of the correlations between the main study variables and interpret their results, the researcher used the simple correlation coefficient test (Pearson) to test the main hypotheses related to the correlation relationships between the study variables, and this is what the nature of the study data embodied. To achieve this purpose, the statistical program (AMOS-26) is used to test these hypotheses.

1- Analyzing the Correlation between Creative Thinking Skills and Job Burnout

In this section, the nature of the relationship between Creative Thinking Skills and Job Burnout is identified in order to verify the third main hypothesis which states "There is a significant relationship between creative thinking skills and job burnout in the study sample at a significance level of ($\alpha \leq 0.05$).

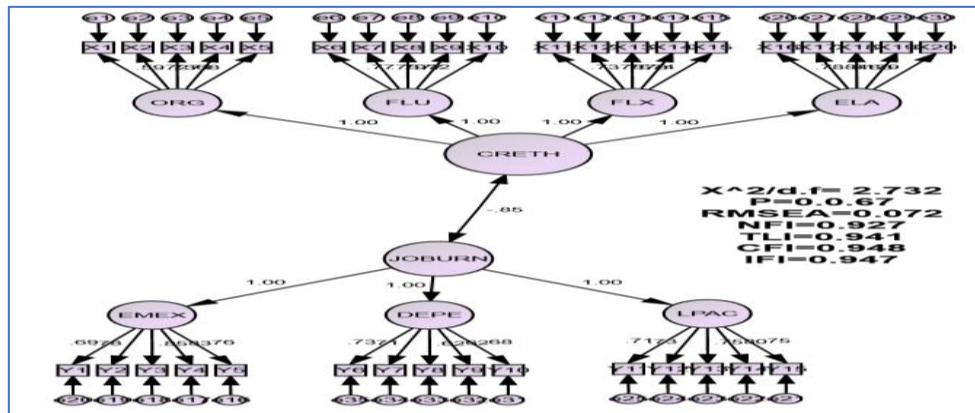


Table (13) and figure (2) show that there is a significant inverse correlation between the Creative Thinking Skills variable and the Job Burnout variable, where the value of the correlation coefficient between them is (-0.85**), and at a significant level (0.05). These results indicate that there is a significant and high level of inverse correlation between the Creative Thinking Skills variable and the Job Burnout variable in Private Universities in Erbil of Iraqi Kurdistan Region. In other words, the more the research Private Universities in Erbil of Iraqi Kurdistan Region depend on Creative Thinking Skills, leading to a decrease and reducing Job Burnout. Therefore, **the third main hypothesis is accepted, which states that: "There is a significant relationship between creative thinking skills and job burnout in the study sample at a significance level of ($\alpha \leq 0.05$)"**

Figure (2) Correlation between Creative Thinking Skills and Job Burnout

Source: Prepared by the researcher based on the outputs of the AMOS-26 program. In order to determine the correlation between the main and sub-variables, tables and a matrix of correlation coefficients between the dimensions of the study variables are used. The significance of the correlation coefficient is confirmed through the quality of the fit to ensure the quality of the structural model for the correlation relationship between the study variables. The following is a test of the hypotheses related to the correlation relationships between Creative Thinking Skills dimensions and Job Burnout, as shown in Figure (4) and table (13).

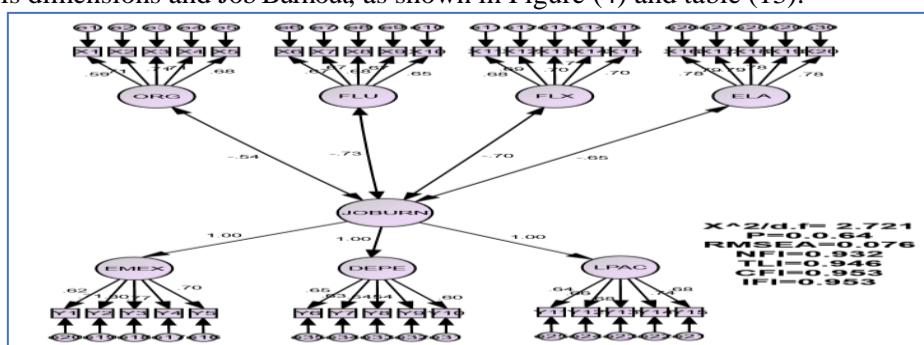


Figure (3) Correlation between Creative Thinking Skills dimensions and Job Burnout

Source: Prepared by the researcher based on the outputs of the AMOS-26

The results in Table (13) confirm that there is an inverse correlation between Creative Thinking Skills dimensions represented by (Originality, Fluency, Flexibility, and Elaboration) and Job Burnout. The value of the inverse correlation coefficient between them is recorded (-0.54 **), (-0.73 **), (-0.70 **), and (-0.065 **), respectively, at a significant level (0.05). **Hence, the (first, second, third, and fourth) sub-hypotheses of the third main hypothesis are accepted.**

Table (13) Correlation between Creative Thinking Skills dimensions and Job Burnout

(Dependent Variable) Job Burnout	Standardized Estimate	Estimate	S.E.	C.R.	Sig. (2-tailed)
Creative Thinking Skills	-.85	-.426	.049	- 8.643	***
Originality	-.54	-.220	.030	- 7.396	***
Fluency	-.73	-.312	.034	- 9.125	***
Flexibility	-.70	-.332	.037	- 8.882	***
Elaboration	-.65	-.415	.047	- 8.912	***

**. Correlation is significant at the 0.01 level (2-tailed).

Source: prepared by the researcher from the results of SPSS statistical analysis.

Moreover, it has been found that the highest value of the correlation coefficient between Creative Thinking Skills dimensions and Job Burnout variable is between the Fluency dimension and Job Burnout, which is (-0.73 **) at a significant level of (0.05). However, the lowest value of the correlation coefficient is between the Originality dimension and the Job Burnout variable, which is (-0.54 **).

Section Four: Testing hypotheses of regression between study variables

In this section, the fourth main hypothesis, which states that "There is a significant impact of creative thinking skills in reducing job burnout in the academic institutions under study at a significance level of ($\alpha \leq 0.05$)" will be tested. Therefore, the influential relationship between the two main variables is modeled, as Figure (4) shows the results of testing the influential relationship between Creative Thinking Skills and Job Burnout.

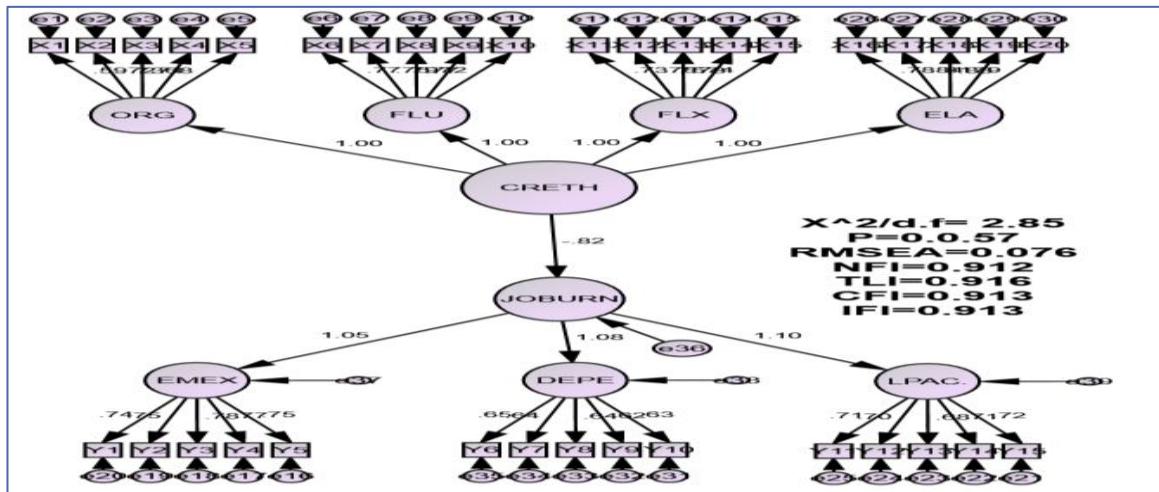


Figure (4) Effect of Creative Thinking Skills on Job Burnout at the levels of variables

Source: Prepared by the researcher based on the outputs of the AMOS-26 program. It is obvious from Figure 4 that all the conformity quality indicators are within the acceptable limits, while the impact results are shown in Table 18.

Table (14) Impact of Creative Thinking Skills on Job Burnout

Job Burnout [JOBURN]						
	R ²	Standardized Estimate	Estimate	S.E.	C.R.	Sig. (2-tailed)
Creative Thinking Skills [CRETH]	0.72	-.82	-1.602	.140	-11.414	***

Source: prepared by the researcher from the results of SPSS statistical analysis.

Based on the data from Table (14), it can be mentioned that Creative Thinking Skills affect Job Burnout by a percentage of (-1.602) and a standard percentage of (-.82), meaning that every increase of one standard deviation leads to decrease of (82%). Once matching the achieved significance level (***) with the percentage that assumed by the researcher, which is (0.05), it can be confirmed that the achieved significance level is smaller. As for the value of the interpretation coefficient (R²) from the table (22), it equals (0.72). This means that (72%) of the changes in Job Burnout would be explained by Creative Thinking Skills, and the remaining percentage of the variance is related to other factors which are not included in the current study. According to these results, the **fourth main hypothesis is accepted, which states that "There is a significant impact of creative thinking skills in reducing job burnout in the academic institutions under study at a significance level of ($\alpha \leq 0.05$)".**

Once testing the second main hypothesis, the sub-hypotheses will be tested, which branch off from the effect of the dimensions of Creative Thinking Skills on Job Burnout into four sub-hypotheses according to the results of the multiple regression analysis, assuming the existence of a significant effect of the dimensions of Creative Thinking Skills on Job Burnout, and the results of the effect are shown in

Figure

(5).

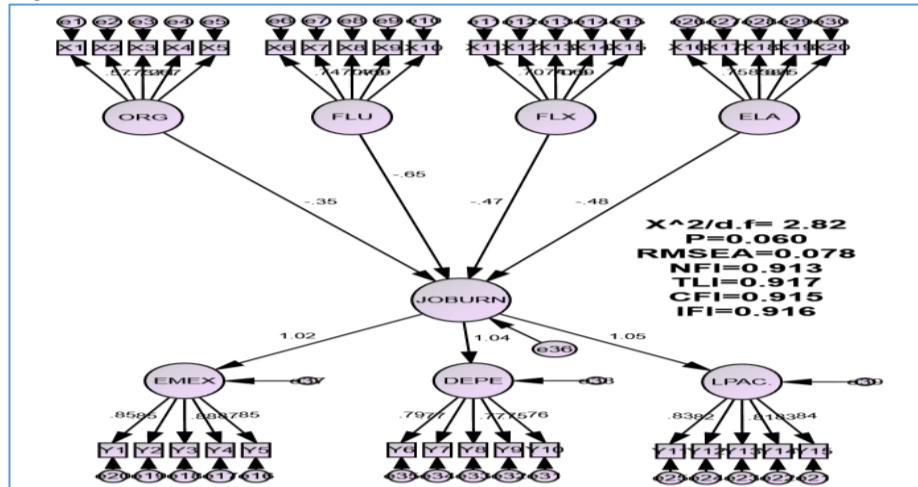


Figure (5) Effect of Creative Thinking Skills dimensions on Job Burnout

Source: Prepared by the researcher based on the outputs of the AMOS-26 program.

In order to cognize the impact of the dimensions of Creative Thinking Skills on Job Burnout, it is essential to identify the influence levels for each dimension of Creative Thinking Skills on (Job Burnout). Therefore, the simple regression test is applied. The results of this analysis mentioned in the table (19), indicate that there is a significant effect of each of the Creative Thinking Skills on Job Burnout.

Table (14) The impact of Creative Thinking Skills dimensions on Job Burnout

Job Burnout [JOBURN]					
Dimensions of Creative Thinking Skills [CRETH]	Sig. (2-tailed)	C.R.	S.E.	Estimate	Standardized Estimate
Originality	***	-9.515	.105	-.995	-.35
Fluency	***	-15.773	.090	-1.425	-.65
Flexibility	***	-13.174	.079	-1.046	-.47
Elaboration	***	-14.444	.060	-.871	-.48

Source: prepared by the researcher from the results of SPSS statistical analysis.

According to the data from Table (14), it is obvious that there are four dimensions of Creative Thinking Skills which its impact on Job Burnout is tested, and the test results are shown as follows. All four sub-hypotheses testing the impact of creative thinking dimensions on job burnout were accepted. Originality (-0.35), Fluency (-0.65), Flexibility (-0.47), and Elaboration (-0.48) each showed a statistically significant negative impact on job burnout at the 0.05 significance level, indicating that higher levels of these creative thinking skills are associated with lower job burnout.

4. Discussion

The findings of this study reveal a strong inverse relationship between creative thinking skills and job burnout among employees in private universities in Erbil,

Kurdistan Region. Statistical analysis demonstrated that dimensions of creative thinking—originality, fluency, flexibility, and elaboration—are significant negative predictors of burnout indicators, including emotional exhaustion, depersonalization, and low personal accomplishment. Fluency emerged as the most influential factor, highlighting the importance of generating multiple solutions in managing stressors. This aligns with the Conservation of Resources (COR) theory, suggesting that creative capacities serve as internal resources that safeguard psychological well-being. The SEM analysis further confirmed that 72% of the variance in job burnout could be explained by creative thinking skills, emphasizing the robustness of this relationship. These findings validate prior literature asserting that creativity enables adaptive coping and psychological resilience. Moreover, this study contributes novel evidence from the context of Iraqi Kurdistan, an under-researched region in burnout literature. Institutions fostering creativity through workshops, interdisciplinary collaboration, and flexible problem-solving structures can expect enhanced employee satisfaction, retention, and productivity. Thus, investing in creativity is both a strategic and psychological imperative for academic institutions operating in high-demand environments.

5. Conclusion

This study confirmed that creative thinking skills significantly reduce job burnout among academic and administrative staff in private universities in Erbil. By enabling individuals to view challenges from diverse perspectives, generate adaptive solutions, and remain cognitively flexible, creativity serves as a vital tool for emotional regulation and professional resilience. The research found a statistically significant inverse relationship between all four dimensions of creative thinking and burnout levels. These insights suggest that creativity is not merely an innovation tool but a protective psychological mechanism. Enhancing creative capacities across academic institutions can create healthier, more sustainable work environments for higher education staff.

5.2 Recommendations

Based on the results, it is recommended that private universities integrate creativity-enhancement modules into staff development programs. These may include periodic training in divergent thinking, innovation labs, and incentives for original problem-solving. Management should also consider embedding flexible policies that allow academic staff to apply creative approaches in teaching and administration. Collaborations across departments should be encouraged to facilitate knowledge exchange and diverse idea generation. Finally, leadership should assess burnout levels regularly and adopt creative engagement strategies to reduce emotional strain. These initiatives can improve mental health, performance, and organizational loyalty, especially in the competitive and demanding environment of higher education.

References:

Gen Z and Millennial Survey. (n.d.) (2023). Deloitte China. Retrieved 1 March 2025, from <https://www2.deloitte.com/cn/en/pages/about-deloitte/articles/genzmillennialsurvey-2023.html>
Abdulkhalil, S. S., Abdullah, D. F., & Yousif, M. S. (2024). The Role of Organizational Innovative Capabilities in Achieving Strategic Agility: An analytical study of the opinions of

administrative leaders in private universities in the Kurdistan Region of Iraq. *Twejer Journal*, 7(1), 1272-1307.

Abdulla, D. F. & Mahmood, O. K., & Fatah, A. O. (2019). An Evaluation of Summer Internship Program at KRG Universities: Students' perspective. *Pro-Environment/ProMediu*, 12(39), 235-243.

Adlakha, D. (2019). Burned Out: Workplace Policies and Practices Can Tackle Occupational Burnout. *Workplace Health & Safety*, 67(10), 531-532. <https://doi.org/10.1177/2165079919873352>

Aslam, D., Khoiri, N., Saefan, J., Saptaningrum, E., & Ristanto, S. (2024). Improving the Attitudes and Creative Thinking Skills of Senior High School Students Using an ESD-Enhanced STEM Approach. *Berkala Ilmiah Pendidikan Fisika*, 12, 177. <https://doi.org/10.20527/bipf.v12i2.18510>

Balci, F., Baykal, G., Goksun, T., Kisbu, Y., & Yantac, E. (2023). My Creative World (MCW): Improving Creative Thinking in Elementary School-Aged Children. *Creativity Research Journal*, 36, 1-15. <https://doi.org/10.1080/10400419.2023.2234703>

Bayani, A. A., & Baghery, H. (2020). Exploring the Influence of Self-Efficacy, School Context and Self-Esteem on Job Burnout of Iranian Muslim Teachers: A Path Model Approach. *Journal of Religion and Health*, 59(1), 154-162. Scopus. <https://doi.org/10.1007/s10943-018-0703-2>

Brainard, L. (2024). What is creativity? *The Philosophical Quarterly*, pqae075. <https://doi.org/10.1093/pq/pqae075>

Chen, X., Masukujaman, M., Al Mamun, A., Gao, J., & Makhbul, Z. K. M. (2023). Modeling the significance of work culture on burnout, satisfaction, and psychological distress among the Gen-Z workforce in an emerging country. *Humanities and Social Sciences Communications*, 10(1), 828. <https://doi.org/10.1057/s41599-023-02371-w>

Chen, X., Xu, Y., Zhang, Q., Huang, H., Tan, X., & Yang, Y. (2025). The relationship between perceived stress and job burnout of police officers during the COVID-19 pandemic: The mediating role of social support, sleep quality and resilience. *BMC Public Health*, 25(1), 334. <https://doi.org/10.1186/s12889-024-21199-w>

Choi, D., Lynch, S., & Kaufman, J. (2022). *Wisdom, Creativity, and Intelligence* (pp. 107-117). <https://doi.org/10.1017/9781009085724.010>

Conway, P. M., Rose, U., Formazin, M., Schöllgen, I., d'Errico, A., Balducci, C., & Burr, H. (2023). Long-term associations of psychosocial working conditions with depressive symptoms and work-related emotional exhaustion: Comparing effects in a 5-year prospective study of 1949 workers in Germany. *International Archives of Occupational and Environmental Health*, 96(5), 661-674. <https://doi.org/10.1007/s00420-023-01959-8>

Dobnik, M., & Lorber, M. (2023). Management Support for Healthcare Workers' Mental Health and Burnout during the COVID-19 Pandemic: A Cohort Study. *Sustainability*, 15(17), Article 17. <https://doi.org/10.3390/su151712766>

Dong, M., Zhang, X., Wu, L., & Cao, F. (2025). Exploring the bidirectional relationship between job burnout and empathy in nurses: A longitudinal study. *Patient Education and Counseling*, 130. Scopus. <https://doi.org/10.1016/j.pec.2024.108445>

Du, Y., Qiao, L., Dong, L., Wan, C., Yang, X., & Liu, H. (2024). The relationship between self-efficacy, resilience, and job burnout in pediatric residents: A cross-sectional study in Western China. *BMC Medical Education*, 24. <https://doi.org/10.1186/s12909-024-05700>

E. Paul Torrance. (1974). *Gifted Child Quarterly*, 18(3), 143-145. <https://doi.org/10.1177/001698627401800302>

Faeq, D., & Ismael, Z. (2022). Organizational Culture as a mediator between Employee Dissatisfaction and Turnover Intention. *International Journal of English Literature and Social Sciences*, 7, 095-110. <https://doi.org/10.22161/ijels.75.17>

Fathonah, S., Cahyono, E., Haryani, S., Sarwi, S., & Lestari, N. H. (2024). Application of Multirepresentation-Based Creative Problem-Solving Learning Models to Improve Critical and Creative Thinking Skills for Students. *International Journal of Cognitive Research in Science, Engineering and Education*, 12(1), Article 1. <https://cyberleninka.ru/article/n/english-13>

Fiabane, E., Gabanelli, P., La Rovere, M. T., Tremoli, E., Pistarini, C., & Gorini, A. (2021). Psychological and work-related factors associated with emotional exhaustion among healthcare professionals during the COVID-19 outbreak in Italian hospitals. *Nursing & Health Sciences*, 23(3), 670–675. <https://doi.org/10.1111/nhs.12871>

Gafour, O., & Gafour, W. (2020). *Creative Thinking skills -A Review article*.

Gaur, A., & Jindal, M. (2023). JOB BURNOUT AMONG EMPLOYEES: A SYSTEMATIC LITERATURE REVIEW. *JETIR*, 10(2), Article 2. <https://www.jetir.org/view?paper=JETIR2302378>

George, D., & Mallory, P. (2024). *IBM SPSS Statistics 29 Step by Step: A Simple Guide and Reference* (18th ed.). Routledge. <https://doi.org/10.4324/9781032622156>

Gniewek, D., Wawro, W., Czapla, M., Milecka, D., Kowalcuk, K., & Uchmanowicz, I. (2023). Occupational Burnout among Nursing Professionals: A Comparative Analysis of 1103 Polish Female Nurses across Different Hospital Settings. *Sustainability (Switzerland)*, 15(11). Scopus. <https://doi.org/10.3390/su15118628>

Grey, S., & Morris, P. (2024). Capturing the spark: PISA, twenty-first century skills and the reconstruction of creativity. *Globalisation, Societies and Education*, 22(2), 156–171. <https://doi.org/10.1080/14767724.2022.2100981>

Guilford, J. P. (1950). Creativity. *American Psychologist*, 5(9), 444–454. <https://doi.org/10.1037/h0063487>

Hasan, R., Lukitasari, M., Utami, S., & Anizar, A. (2019). The activeness, critical, and creative thinking skills of students in the Lesson Study-based inquiry and cooperative learning. *Jurnal Pendidikan Biologi Indonesia*, 5. <https://doi.org/10.22219/jpbi.v5i1.7328>

Hidayati, N., Fitriani, A., Saputri, W., & Ferazona, S. (2023). Exploring University Students Creative Thinking Through Digital Mind Maps. *Journal of Turkish Science Education*. <https://doi.org/10.36681/tused.2023.007>

Homayooni, A., Homayooni, F., & Homayooni, S. (2020). The relationship between personality traits, basic psychological needs satisfaction, work-related psychological flexibility and job burnout. *Iran Occupational Health*, 16(6), 27–39. <http://ioh.iums.ac.ir/article-1-2367-en.html>

Hunsaker, S., Chen, H.-C., Maughan, D., & Heaston, S. (2015). Factors that influence the development of compassion fatigue, burnout, and compassion satisfaction in emergency department nurses. *Journal of Nursing Scholarship: An Official Publication of Sigma Theta Tau International Honor Society of Nursing*, 47(2), 186–194. <https://doi.org/10.1111/jnu.12122>

Kafeel, S., Javed, S., Kiani, S., Khalid, S., Siddiqui, S., & Saleem, S. (2023). Prevalence of Burnout Syndrome Among Male Psychiatric Nursing Assistants Working in Public and Private Hospitals in Rawalpindi. *Pakistan Armed Forces Medical Journal*, 73, 1496–1500. <https://doi.org/10.51253/pafmj.v73i5.11075>

Karunaratne, W., & Calma, A. (2024). Assessing creative thinking skills in higher education: Deficits and improvements. *Studies in Higher Education*, 49(1), 157–177. <https://doi.org/10.1080/03075079.2023.2225532>

Khdour, N. J., Durrah, O., & Harris, M. (2015). The Effect of Job Burnout on Employees' Satisfaction: A Comparison Study between Public Universities and Private Universities in Jordan. *Journal of Management Research*, 7(4), 54. <https://doi.org/10.5296/jmr.v7i4.7790>

Kim, K. H. (2006). Can We Trust Creativity Tests? A Review of the Torrance Tests of Creative Thinking (TTCT). *Creativity Research Journal*, 18(1), 3–14. https://doi.org/10.1207/s15326934crj1801_2

Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, 30(3), 607–610. <https://doi.org/10.1177/001316447003000308>

Ladjini, M., & Benaissi, F. (2024). *What Suppresses Learners' Creativity? Creativity Barriers of English Students at M'sila University, Algeria. Volume: 05/*, p 475/ 490.

Lambert, E. G., Keena, L. D., Morrow, W. J., Vickovic, S. G., Haynes, S. H., May, D., & Leone, M. C. (2022). Effects of Work–Family Conflict on Southern Correctional Staff Burnout. *Criminal Justice and Behavior*, 49(1), 117–138. <https://doi.org/10.1177/00938548211026354>

Lee, R. T. (2015). Wellbeing and Burnout in the Workplace, Psychology of. In *International Encyclopedia of the Social & Behavioral Sciences: Second Edition* (pp. 534–536). Scopus. <https://doi.org/10.1016/B978-0-08-097086-8.25041-1>

Leone, M. C., Lambert, E. G., Keena, L. D., Hayes, S. H., & May, D. (2024). Examining the Effects of Key Workplace Variables on Job Burnout of Southern Prison Staff. *The Prison Journal*, 104(2), 173–193. <https://doi.org/10.1177/00328855231222441>

MASLACH, C. (1997). Maslach burnout inventory. *Evaluating Stress : A Book of Resources*, 191–218. <https://cir.nii.ac.jp/crid/1570854176000542080>

Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior*, 2(2), 99–113. <https://doi.org/10.1002/job.4030020205>

Maslach, C., & Leiter, M. (2016). Understanding the burnout experience: Recent research and its implications for psychiatry. *World Psychiatry*, 15, 103–111. <https://doi.org/10.1002/wps.20311>

McFarland, D. C., & Hlubocky, F. (2021). Therapeutic Strategies to Tackle Burnout and Emotional Exhaustion in Frontline Medical Staff: Narrative Review. *Psychology Research and Behavior Management*, 14, 1429–1436. <https://doi.org/10.2147/PRBM.S256228>

Nesher Shoshan, H., & Sonnentag, S. (2020). The effects of employee burnout on customers: An experimental approach. *Work & Stress*, 34(2), 127–147. <https://doi.org/10.1080/02678373.2019.1577312>

Park, H. I., Jacob, A. C., Wagner, S. H., & Baiden, M. (2014). Job control and burnout: A meta-analytic test of the conservation of resources model. *Applied Psychology*, 63(4), 607–642. Scopus. <https://doi.org/10.1111/apps.12008>

Park, Y. S., Konge, L., & Artino, A. R. (2020). The Positivism Paradigm of Research. *Academic Medicine: Journal of the Association of American Medical Colleges*, 95(5), 690–694. <https://doi.org/10.1097/ACM.0000000000003093>

Putri, R., Bukit, N., & Simanjuntak, M. (2021, January 1). *The Effect of Project Based Learning Model's on Critical Thinking Skills, Creative Thinking Skills, Collaboration Skills, & Communication Skills (4C) Physics in Senior High School*. <https://doi.org/10.2991/assehr.k.211110.103>

Rahman, N., Sutoyo, S., & Lutfi, A. (2024). Validity of PBEST Learning Model: An Innovative Learning to Improve Creative Thinking Skill and Entrepreneurial Science Thinking. *Journal of Curriculum and Teaching*, 13, 195. <https://doi.org/10.5430/jct.v13n1p195>

Rathi, S., Kumar, P., Bawa, M., & Garg, N. R. (2024). Relationship between job stress and employees' creativity: The mediating role of job satisfaction. *Middle East Journal of Management*. <https://www.inderscienceonline.com/doi/10.1504/MEJM.2024.141911>

Rowais, A. S. A. (2019). Effectiveness of Marzano's Dimensions of Learning Model in the Development of Creative Thinking Skills among Saudi Foundation Year Students. *World Journal of Education*, 9(4), 49. <https://doi.org/10.5430/wje.v9n4p49>

Runco, M. A., & Alabbasi, A. M. A. (2024). Interactions among dimensions of divergent thinking as predictors of creative activity and accomplishment. *Thinking Skills and Creativity*, 53, 101583. <https://doi.org/10.1016/j.tsc.2024.101583>

Runco, M. A., & Jaeger, G. J. (2012). The Standard Definition of Creativity. *Creativity Research Journal*, 24(1), 92–96. <https://doi.org/10.1080/10400419.2012.650092>

Rushton, C. H., & Pappas, S. (2020). Systems to Address Burnout and Support Well-being: Implications for Intensive Care Unit Nurses. *AACN Advanced Critical Care*, 31(2), 141–145. <https://doi.org/10.4037/aacnacc2020771>

Salama, W., Abdou, A. H., Mohamed, S. A. K., & Shehata, H. S. (2022). Impact of Work Stress and Job Burnout on Turnover Intentions among Hotel Employees. *International Journal of Environmental Research and Public Health*, 19(15), Article 15. <https://doi.org/10.3390/ijerph19159724>

Samaniego, M., Usca, N., Salguero, J., & Quevedo, W. (2024). Creative Thinking in Art and Design Education: A Systematic Review. *Education Sciences*, 14(2), Article 2. <https://doi.org/10.3390/educsci14020192>

Saputri, M., Syukri, M., & Elisa. (2022). Analysis of momentum and impulse on students' creative thinking skill through project based learning integrated STEM (science, technology, engineering, mathematics). *Journal of Physics: Conference Series*, 2193(1), 012066. <https://doi.org/10.1088/1742-6596/2193/1/012066>

Saunders, M. N. K., Lewis, P., & Thornhill, A. (2023). *Research Methods for Business Students*. Pearson.

Savira, S., Kholidya, C., Rachmadiyanti, P., Komalasari, D., & Winingsih, E. (2022, January 1). *Job Burnout on Teachers as Public Servant*. <https://doi.org/10.2991/assehr.k.211223.212>

Sukarso, A., Artayasa, I. P., Bahri, S., & Azizah, A. (2022). Provision of Creative Teaching Materials in Improving Creative Disposition and Creative Thinking Skills of High School Students. *Jurnal Penelitian Pendidikan IPA*, 8, 2728–2736. <https://doi.org/10.29303/jppipa.v8i6.2514>

Sutisnawati, Y., & Syahroni, D. A. W. (2018). *Employee Burnout in Private University*. 87–90. <https://doi.org/10.2991/icobest-18.2018.20>

Tartakovsky, E., & Orange, P. (2024). Personal value preferences, multifaceted job satisfaction and burnout in Israeli high-tech. *International Journal of Psychology*, 59(6), 1101–1110. Scopus. <https://doi.org/10.1002/ijop.13237>

Timotheou, S., & Ioannou, A. (2021). Learning and innovation skills in making contexts: A comprehensive analytical framework and coding scheme. *Educational Technology Research and Development*, 69. <https://doi.org/10.1007/s11423-021-10067-8>

Wulandari, H. Y. A., Ekawati, R., & Shodikin, A. (2024). EXPLORING CREATIVE THINKING SKILL. *Jurnal Pendidikan Matematika (JUPITEK)*, 7(1), Article 1. <https://doi.org/10.30598/jupitekvol7iss1pp22-32>

Yang, D., Fang, G., Fu, D., Hong, M., Wang, H., Chen, Y., Ma, Q., & Yang, J. (2023). Impact of work-family support on job burnout among primary health workers and the mediating role of career identity: A cross-sectional study. *Frontiers in Public Health*, 11, 1115792. <https://doi.org/10.3389/fpubh.2023.1115792>

Yusnaeni, Corebima, A. D., Susilo, H., & Zubaidah, S. (2020). The Contribution of Metacognitive Skills and Creative Thinking Skills in 21st Century Learning. *Universal Journal of Educational Research*, 8(4A), 31–36. <https://doi.org/10.13189/ujer.2020.081805>

Zanjani, Z., Joekar, S., & Omidi, A. (2021). The Mental Health and Job Burnout of Nurses During the COVID-19 Outbreak: Resilience as a Mediator. *Iranian Journal of Psychiatry and Behavioral Sciences, In Press*. <https://doi.org/10.5812/ijpbs.109925>