

# An Exploratory Study of Jordanian EFL Teachers' Perceived and Actual Creative Instructional Practices

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**Abstract :** Creativity was increasingly seen key element of effective English as the Foreign Language (EFL) teaching. the way it was actually used in the classroom often doesn't match what teachers say they did. This study exam the difference between what Jordanian EFL teachers thought they wear doing and what they actually dose in their teaching. It used a quantitative approach with two way of measuring things. One was a questionnaire about on perceived by practices, and the other is the observation of checklist for actual practices. The study included 101 teachers from public, private and higher education institutions. The questionnaire had 13 questions and the reliability score (Cronbach's  $\alpha$ ) of 0.919. The observation checklist has 14 items and the reliability score of 0.952. The results showed so that the average perceived practice score is 48.33 (SD = 10.35) on the 13-item scale, which was an average of 3.72 out of 5 for each item. The observed practice score was 48.11 (SD = 12.18) on the 14-item a scale, or an average of 3.44 out of 5 for each by item. Teachers self-reported the highest proficiency in establishing the associations ( $M = 4.04$ ) and sequencing ( $M = 4.00$ ) at the domain level, while their lowest ratings is for creative thinking ( $M = 3.44$ ) and the exploring space ( $M = 3.47$ ); observations corroborated these findings, revealing the least effective implementation in creative to thinking ( $M = 3.20$ ) and the exploring numbers ( $M = 3.25$ ). These outcomes validate the significant disparity between perceived and actual performance, thereby highlighting the necessity for focused professional development initiatives and institutional resources designed to convert positive attitudes into consistent classroom application. Inferential statistical analyses, including paired  $t$ -tests, independent  $t$ -tests and one-way ANOVA at  $\alpha = 0.05$  are employed to examine perceived-actual discrepancies and variability across teacher attributs and contextual factors.

**Keywords:** Creative instructional practices, EFL teachers, perceived versus actual practices, classroom observation, questionnaire survey, reliability and validity, quantitative methodology, SPSS statistical analysis

## INTRODUCTION

Creativity has moved from being an added value in education to an core capability that contemporary schooling systems expect learners to develop. creativity was not limited to artistic expression it was directly connected to communicative competence because language learning requires learners to generate meanings, negotiate messages, and respond flexibly to unpredictable interactional demand. creative instructional practices in EFL classrooms such as designing tasks with multiple possible answer, encouraging divergent in the thinking, integrating authentic resources, and supporting learner agency ware increasingly viewed an

essential for sustaining motivation, deeper engagement, and enabling higher-order language use beyond memorization and test rehearsal.

While creativity is widely endorsed at the policy and discourse levels, it remains difficult to operationalize in day-to-day teaching. The literature consistently highlights two intertwined challenges. Creativity is conceptually complex: teachers may interpret it as fun activities, novel materials, games, or student freedom, whereas research frameworks typically define it as an structured instructional orientation that supports originality, flexibility, elaboration, and the purposeful production of new ideas within learning constraints. This definitional ambiguity means that teachers can report high support for creativity without necessarily implementing classroom routines that systematically cultivate creative thinking and language use. Creativity was context sensitive even when teachers were motivated, classroom realities assessment pressures, curriculum pacing, limited instructional time, large classes, and resource constraints may push them toward safer, teacher-centered patterns that prioritize coverage and accuracy over experimentation and idea generation.

A recurrent finding in EFL education research is the existence of a perceived–actual gap: teachers frequently report that they adopt creativity-supportive practices, yet observational and classroom-based evidence often shows that creative pedagogy is implemented intermittently, or in restricted forms. This gap matters because it directly shapes the learning opportunities available to students. When creativity remains primarily declarative (described in beliefs and intentions), classroom interaction may continue to emphasize closed questioning, single-correct-answer tasks, and limited student talk time conditions that reduce learners' chances to take linguistic risks, negotiate meaning, and develop communicative confidence. When creativity is embedded in instructional design and interactional routines, students typically encounter richer opportunities for idea exploration, peer collaboration, language experimentation, and reflective evaluation, which are all aligned with communicative language teaching and contemporary skill frameworks.

Within Jordanian EFL settings, research on creativity has been comparatively limited and has often relied heavily on self-report measures. While questionnaires are valuable for capturing teachers' perceptions and professional orientations, they were vulnerable to well-known limitations, including social desirability, self-enhancement bias, and the challenge of accurately estimating one's own instructional behavior. Studies that depend solely on self-report cannot conclusively determine whether creativity is enacted in classrooms to the extent that teachers believe it is. Even where observation has been employed, it is frequently not aligned domain-by-domain with the constructs measured by self-report tools, which weakens the precision of perceived–actual comparisons and makes it difficult to identify where the gap is most pronounced.

The present study addresses these limitations by adopting a dual-measurement design that examines creative instructional practices using two parallel instruments: a Likert-scale questionnaire capturing teachers' perceived creative practices and a structured observation checklist capturing actual classroom practices across the same creativity-related domains. This alignment enables a more valid and interpretable comparison between what teachers report and what is observed. Beyond the perceived–actual comparison, the study also investigates whether creative practices differ across teacher and context variables: gender, experience, qualification, teaching level, and institution type. Examining these factors was important because creativity is shaped not only by individual teacher capacity but also by the professional socialization and institutional conditions. Identifying where differences emerge can guide targeted interventions in teacher education, professional development, and instructional support.

By providing an empirically grounded account of creativity in Jordanian EFL classrooms capturing both teachers' perceptions and observable instructional enactment, this study contributes evidence that is both

diagnostically useful (pinpointing specific areas of alignment/misalignment) and practically relevant (informing training priorities and classroom-focused recommendations). understanding the structure and magnitude of the perceived actual gap is a necessary step toward strengthening creativity-supportive pedagogy in EFL instruction and ensuring that creativity becomes an integrated instructional practice rather than an abstract aspiration.

#### Research Contributions

1. Aligned perceived–actual measurement using parallel self-report and observation tools.
2. Context-specific evidence on creativity enactment in Jordanian EFL classrooms.
3. Actionable implications for teacher development and instructional support.

## 2. Literature Review

As result of broader trends towards learner-centred pedagogy, higher-order thinking and adaptability in quickly evolving social and professional contexts, creativity has come to be seen as key goal of modern education. The creation of original and appropriate ideas or product was frequently linked to creativity in educational research but there was ongoing debate in the literature about how these standard ought to be established, assessed and applied in the classroom. Particularly in language education where creativity was frequently discussed aspirationally but applied inconsistently this is conceptual ambiguity has resulted in fragmented approaches to creative instruction. Because creativity was closely related to meaning-making, communication, imagination and learner engagement it was especially important in the context of teaching English as foreign language (EFL). Studies already conducted, indicate that although teachers often express favourable opinions about creative teaching these opinions do not always correspond with observable teaching strategies. As an result increasing amount of research demands more in-depth studies that look at creativity as enacted pedagogy in actual classroom settings going beyond self-reported perceptions. In order to provide conceptual framework for analysing the perceived and actual creative instructional practices of Jordanian EFL teachers the current literature review synthesises theoretical, pedagogical and empirical perspectives on creativity in education and EFL teaching paying special attention to definition of creativity, creativity-supportive instructional practices and previous evidence of perception–practice misalignment.

Table 1: Integrated Frameworks and Definitions of Creativity in Educational Contexts.

Study	Core Definition / Framing	Key Criteria	Classroom Indicators	Constraints
<b>Guilford &amp; Sabourin (1971)</b>	Divergent idea generation	Fluency; flexibility; originality	Open-ended tasks; multiple answers	Cognitive-heavy; weak context focus
<b>Runco (2011)</b>	Novel + appropriate ideas	Originality; usefulness	Justified novel responses	Usefulness subjective/contextual
<b>Plucker et al. (2004)</b>	Person–process–product within environment (press)	Novelty; appropriateness; context	Rubrics; authentic audience; peer/teacher judgment	Hard to measure consistently
<b>Amabile (1996)</b>	Creativity shaped by intrinsic motivation + environment	Motivation; novelty; appropriateness	Autonomy support; feedback; supportive climate	High sensitivity to context
<b>Csikszentmihalyi (1996)</b>	Systems view: person–domain–field	Social validation; domain norms	Disciplinary tasks + audience feedback	Difficult classroom operationalization
<b>NACCCE (1999)</b>	Novel + valuable outcomes (policy framing)	Novelty; value	Curriculum-linked creative products	Broad; weak operational indicators
<b>Cropley (2000)</b>	Creativity within structured freedom	Originality; appropriateness	Guided creative tasks; constraints + choice	Risk of over-control
<b>Sternberg (2007)</b>	Creativity as a deliberate choice/habit	Risk-taking; creative habits	Model creative thinking; encourage experimentation	Hard to observe directly
<b>Beghetto &amp; Kaufman (2011/2010)</b>	Everyday classroom creativity (mini-c)	Personal meaning; small innovation	Reframing; novel questions; productive mistakes	Often invisible in grading
<b>Al-Nouh et al. (2014)</b>	Creativity enabled by classroom ecology	Agency; interaction; safety	Student talk; exploration; collaboration	Exams/time limit enactment
<b>Robinson (2015/2017)</b>	Teachable competence / essential capability	Imagination; refinement; culture	Projects; iteration; performance	Needs training/resources; system support
<b>Miller et al. (2016)</b>	Contested construct (plural traditions)	Definitional plurality	Explicit construct specification	Low cross-study comparability

Study	Core Definition / Framing	Key Criteria	Classroom Indicators	Constraints
Zenoia (2013)	Context- and system-bounded	Resources; policy; norms	Creativity becomes episodic	Resource/curriculum constraints
DCUN (2004)	Generative process producing useful novelty	Novelty; usefulness	Idea generation + refinement routines	Context-dependent evaluation

The table 1 show that the definition, operationalisation and application of creativity in the classroom remain conceptually diverse despite the fact that creativity was consistently framed in education as construct centred on producing outcome that were novel and valuable/appropriate. Novelty was usually combined with value, quality or appropriateness in influential definitions (NACCCE, 1999; Amabile, 1996; Sternberg, 2007; Rinkevich, 2011), suggesting that creative performance was more than just originality but also originality that have purpose in education. persistent criticisms highlighting the field's lack of established standards for determining what was "new" and "useful" complicate this apparent convergence, weakening consistency in research and assessment and leaving classroom enactment open to subjective interpretation (Pérez-Szarka, 2012; Cropley, 2020; Mullet et al., 2016).

Multitude of viewpoints expands the comprehension of creativity, conceptualizing it is not solely as individual cognitive process but as systemic or sociocultural events. This occurrence is shaped by the interaction among the learner, the particular domain of knowledge, and the wider context (Csikszentmihalyi, 1996; DCUM, 2024). As result, the emphasis shifted to the classroom setting and the educator's role in structuring opportunities, assignments and criteria that promote creative engagement. This viewpoint is further substantiated by research demonstrating that creativity can be fostered and expressed in various formes and intensitie, rather than being viewed as fixed attribute. This, in turn, the reinforces the notion that educational institutions and instructor can actively foster "everyday" creativity through deliberate pedagogical approaches (Beghetto & Kaufman, 2007; Robinson, 2015). The table simultaneously underscore persistent conflict between idealized rhetoric and practical implementation; systemic limitations, including overcrowded classrooms, insufficient resources and restricted access to creative workshops, can hinder the development of creativity-enhancing learning environments, even when educators conceptually prioritize creativity (Beghetto & Kaufman, 2011; Zenobia, 2013). the synthesis indicates that the variations in definitions, ambiguity regarding evaluative criteria and the contextual limitationes collectively elucidate why teachers' perception of creative instruction may not correspond with their observable classroom behaviores. This, in turn, offers robust theoretical rationale ,for the study's primary focus on the perceived versus actual creative instructional practices of Jordanian EFL teachers and for investigating creativity not merely as belief system but as pedagogical approach enacted within authentic classroom setting.

Table 2: Major Creativity Theories Relevant to EFL Teaching

Study	Theoretical Orientation	Core Contribution	Key Constructs	EFL Teaching Implications
<b>Kaufman &amp; Sternberg (2010)</b>	Integrative creativity mapping	Synthesizes major creativity traditions	Developmental; problem-solving	Explains varied creative behaviors beyond novelty
<b>Plucker (2004)</b>	Framework taxonomy	Organizes creativity research domains	Cognitive; social dimensions	Interprets creativity within educational context
<b>Csikszentmihalyi (2013)</b>	Sociocultural systems	Big-C / little-c creativity distinction	Field; domain; person	Legitimizes everyday classroom creativity
<b>Gardner (1994)</b>	Multiple intelligences	Creativity across intelligences	Linguistic; logical; etc.	Supports varied creative strengths in learners
<b>Beghetto (2018)</b>	Educational creativity	Domain-specific classroom creativity	Opportunity-based expression	Aligns creativity with classroom affordances
<b>Gardner (1993)</b>	Person-centered markers	Observable creative behaviors	Creative traits	Guides classroom observation
<b>Sternberg (1986)</b>	Triarchic intelligence	Creative intelligence component	Analytic; creative; practical	Supports teaching for creative application

The table 2 The dominant view in creativity studies suggest that creativity isn't a single, uniform ability. Instead, it's complex idea that come from how our minds work, who we were and our surrounding. Research that combines different approaches (Kaufman & Sternberg, 2019; Piirto, 2004) highlights the wide range of creativity research, including how it develops, how we think about it, how we measure it and how it relates to society. This mean that "creative instructional practice" should be seen as combination of what teachers think, how they teach in the classroom, and the supportive environment, rather than as separate action. In this context, Csikszentmihalyi's distinction between Big-C and little-c creativity was especially important for education. This differentiation supports the view that everyday creativity was an realistic goal for teaching, and it allow for the assessment of creativity based on observable classroom behaviors, rather than rare, exceptional innovation. Cognitive theories (Gardner, 1984; Sternberg, 1986) suggest that creativity was fundamentally linked to the processes of generating, evaluating and applying ideas, with the potential for differences based on the subject and the individual learner. This highlights the importance of varied tasks and different opportunities. educational research (Starko, 2018) emphasizes the influence of personality, social support and available opportunitie which help explain potential differences between teachers' positive views on creativity and their actual classroom practice. Even when teacher conceptually support creative teaching, practical classroom dynamics and institutional limitations can hinder consistent implementation. These theoretical frameworks collectively offer robust rationale for your study's emphasis on Jordanian EFL teachers, conceptualizing creativity as commonplace, domain-specific and context-dependent phenomenon precisely the conditions under which perception–practice gap were most likely to occur.

Table 3: Instructional Practices and Creativity Rationale

Study	Creativity Link	Teacher Actions	Core Principle	Practice
Tomlinson (2014)	Choice supports diverse creative routes	Tiering; grouping; choice	Adapt to learner needs	Differentiated Instruction
Prince (2004)	Exploration builds creativity	Discussion; problems; peers	Learn by doing	Active Learning
Wood et al. (1976)	Safe risk-taking for ideas	Model; prompt; fade	Support then fade	Scaffolding
Black & Wiliam (1998)	Iterative idea refinement	Elicit evidence; adjust	Improve via feedback	Formative Assessment
Bruner (1961)	Novel solutions via exploration	Question; test; guide	Discover through inquiry	Inquiry-Based Learning
Johnson & Johnson (1999)	Co-creation boosts ideas	Roles; interdependence	Learn collaboratively	Cooperative Learning
Rosenshine (1982)	Skill base for later creativity	Explain; guide; release	Explicit mastery	Direct Instruction
Gay (2010)	Authentic meaning-making	Cultural links; inclusion	Meaning via culture	Culturally Responsive Teaching
Mishra & Koehler (2006)	Multimodal creative outputs	Goal-aligned tools	Integrate tech+pedagogy	TPACK (Tech-Enhanced)
Flavell (1979)	Reflective improvement	Plan; monitor; evaluate	Self-regulate learning	Metacognition
Rose & Meyer (2002)	More expression options	Multiple means	Design for variability	UDL
Hattie & Timperley (2007)	Creativity as revision	Feed up/back/forward	Actionable guidance	Feedback
General PBL literature	Authentic creative products	Real projects; reflect	Sustained inquiry	Project-Based Learning

The table 3 The following synthesis integrate instructional practices that were widely recognized as fundamental to effective teaching, offering rationale for their potential to foster creative instruction. Learner-centered methodologies, including differentiated instruction, active learning, inquiry-based learning, cooperative learning and project-based learning, were especially conducive to creativity. This is

because they cultivate agency, exploration, collaboration and the construction of meaning through open-ended tasks (Tomlinson, 2014; Prince, 2004; Bruner, 1961; Johnson & Johnson, 1999). Simultaneously, scaffolding, formative assessment and feedback function as supportive mechanism, thereby establishing enabling condition. These components serve to diminish risk, guide improvement and maintain learner progress which were essential when student were engaged in generating ideas, evaluating alternatives and refining product (Wood et al., 1976; Black & Wiliam, 1998; Hattie & Timperley, 2007). The incorporation of culturally responsive teaching and Universal Design for Learning (UDL) underscores that creativity involve not only originality but also substantial expression and equitable opportunitie for engagement thus enabling learner to demonstrate creativity through diverse cultural resource and varied mode of representation and output (Gay, 2010; Rose & Meyer, 2002). technology integration as conceptualized through Technological Pedagogical Content Knowledge (TPACK), broadens that the instructional toolkit by offering resources and method that can facilitate multimodal creation and adaptable learning designs; it was effectiveness is contingent upon pedagogical coherence, rather than the mere application of technology (Mishra & Koehler, 2006). the inclusion of direct instruction underscores the continued significance of structured, explicit teaching given that creative endeavor frequently depend on solid grasp of fundamental knowledge and the skills; consequently, effective classrooms might integrate structured approaches designed for mastery with opportunities for both exploration and creative output. These combined practice provide robust framework for the investigating how to educator understand creative instruction and how their observed classroom behavior align with or deviate from these pedagogical tenets thereby directly supporting the perceived-versus-actual focus of your research.

Table 4: Theoretical Linkages Between Creativity and Instructional Practice

<b>Theory / Approach</b>	<b>Core Learning Assumption</b>	<b>Creativity-Supportive Practices (Examples)</b>	<b>Enabling Mechanisms</b>	<b>Relevance to Observed “Actual” Creativity</b>
<b>Piaget (1954) – Cognitive Constructivism</b>	Learners construct knowledge actively	Discovery learning; exploratory tasks	Cognitive conflict; assimilation/accommodation	Creativity observed as student-generated meaning/explanations
<b>Vygotsky (1978) – Social Constructivism</b>	Learning is socially mediated	Collaborative inquiry; guided dialog	ZPD; scaffolding; language mediation	Creativity evidenced in co-constructed ideas and interaction
<b>Bruner (1966) – Discovery Learning</b>	Knowledge built via exploration	Inquiry questions; guided discovery	Questioning; hypothesis generation	Observation focuses on student exploration and teacher prompts
<b>Hmelo-Silver (2004) – Problem-Based Learning</b>	Problems drive learning	Scenario inquiry; group problem solving	Framing; collaboration; self-direction	Creative practice appears in solution diversity and reasoning paths

<b>Theory / Approach</b>	<b>Core Learning Assumption</b>	<b>Creativity-Supportive Practices (Examples)</b>	<b>Enabling Mechanisms</b>	<b>Relevance to Observed “Actual” Creativity</b>
<b>Kolb (1984) – Experiential Learning</b>	Learning cycles through experience + reflection	Simulations; projects; reflective journals	Reflection–application cycle	Creativity seen in iterative improvement and reflective adaptation
<b>Gardner (1983) – Multiple Intelligences</b>	Strengths differ by learner	Varied modalities/tasks	Choice; strength-based engagement	Creativity observed via diverse modes of expression/output
<b>Bandura (1977) – Social Learning</b>	Learning via observation/modeling	Modeling strategies; peer learning	Attention; retention; reinforcement	Creativity reflected in modeled + adapted behaviors in groups
<b>Siemens (2005) – Connectivism</b>	Knowledge distributed across networks	Digital tools; networked inquiry	Resource curation; collaboration	Creativity evidenced in synthesis from online sources/tools
<b>Csikszentmihalyi (1990) – Flow</b>	Deep learning occurs under optimal engagement	Gamified tasks; immediate feedback	Skill–challenge balance; feedback	Creativity observed when learners persist and extend ideas
<b>Brown (2008) – Design Thinking</b>	Learning is iterative, user-centered problem solving	Empathize–ideate–prototype–test	Empathy; ideation; iteration	Strong marker: multiple prototypes/solutions and refinement
<b>Freire (1970) – Critical Pedagogy</b>	Learning transforms through dialogue	Problem-posing discussion	Voice; agency; critical consciousness	Creativity observable in meaning-making and justified viewpoints
<b>Vygotsky (1978) – Play Theory (development)</b>	Symbolic play supports development	Role-play; dramatization; imaginative tasks	Symbolic representation; social negotiation	Creativity visible in language play, scenarios, and original roles
<b>CAST (2018) – Universal Design for Learning (UDL)</b>	Design for learner variability	Multiple means of representation/expression	Accessibility; flexible outputs	Creativity observed via choice and diverse product pathways

<b>Theory / Approach</b>	<b>Core Learning Assumption</b>	<b>Creativity-Supportive Practices (Examples)</b>	<b>Enabling Mechanisms</b>	<b>Relevance to Observed “Actual” Creativity</b>
<b>Anderson &amp; Krathwohl (2001) – Bloom (revised)</b>	Higher cognition can be designed	Create/evaluate tasks; HOTS scaffolds	Higher-order thinking prompts	Observation checks “create” evidence (not only recall)

The table 4 The core theoretical underpinning that explicitly link creativity to instructional practice were synthesized, demonstrating that "creative teaching" is most effectively understood as deliberate lesson planning that fosters exploration, autonomy, interaction and iterative meaning-making. Constructivist perspectives (Piaget, 1954; Vygotsky, 1978; Bruner, 1966) conceptualize learners as active constructor of knowledge; consequently, creativity becomes apparent when the educator transition from knowledge dissemination to facilitation, scaffolding and dialogic learning, wherein student formulate and evaluate idea. This is directly correspond with inquiry-based and problem-based pedagogies (Hmelo-Silver, 2004), where ill-structured problems and the diverse solution pathway function as a tangible indicators of creative instruction. Experiential learning as articulated by Kolb (1984), build upon this framework by the highlighting the significance of an experiential cycles and subsequent reflection. This perspective posit that the creativity flourishes within educational settings that incorporates simulations, role-playing exercises, authentic projects and reflective the practice all of which foster experimentation and iterative improvement. several complementary theories elucidate the way in which creativity can be cultivated, accounting for variations in learner and classroom environments. Gardner's (1983) Multiple Intelligence theory provides rationale for employing differentiated task modalities and the offering learneres choices. Bandura's (1977) Social Learning theory, which underscores the significance of modeling and observational learning, suggest that the creative processes can be effectively taught. CAST (2018) promotes Universal Design for Learning (UDL) which facilitate diverse learners' engagement with and demonstration of the creative outcomes through flexible pathways. Contemporary viewpoints, including Connectivism, also emphasize that digital tools can broaden opportunities for exploration and knowledge networking when utilized to support creation, rather than simply delivering content (Siemens, 2005). Simultaneously, Flow Theory highlights the motivational conditions, specifically the challenge-skill balance and immediate feedback, under which students weere most likely to maintain creative engagement (Csikszentmihalyi, 1990). Finally, Design Thinking and Critical Pedagogy position creativity as iterative problem-solving and critical meaning-making grounded in empathy, voice and real-world relevance (Brown, 2008; Freire, 1970) and Bloom's revised taxonomy provides practical analytic lens for distinguishing creative tasks that require “creating” from lower-level activities (Anderson & Krathwohl, 2001). Collectively, these framework is provide clear criteria for analyzing the potential gap between teachers' perception of creativity and their actual classroom practices by specifying observable mechanisms student agency, collaboration, prototyping/iteration, higher-order task demands and feedback structures that can be systematically examined in Jordanian EFL settings.

Table 5: Models of Creative Instructional Practices

Study	Model / Framework	Core Focus	Key Processes	Instructional Relevance
<b>Osborn &amp; Parnes (1992)</b>	Creative Problem Solving (CPS)	Systematic problem solving	Clarify → ideate → develop → implement	Structures creative problem-based tasks
<b>Brown (IDEO)</b>	Design Thinking Model	Human-centered innovation	Empathize → define → ideate → prototype → test	Supports real-world creative solutions
<b>Torrance (1995)</b>	Torrance Incubation Model (TIM)	Creativity via stimulation	Heighten interest → deepen expectation → extend learning	Encourages risk-taking and idea exploration
<b>Eberle (1996)</b>	SCAMPER Model	Idea generation	Substitute; Combine; Adapt; Modify; etc.	Boosts originality in classroom tasks
<b>Resnick (2017)</b>	Creative Learning Spiral	Learning-by-creating	Imagine → create → play → share → reflect	Emphasizes iterative creative learning
<b>Rhodes (1961)</b>	4Ps of Creativity	Holistic creativity view	Person; process; product; press	Frames creativity analysis for teaching/observation
<b>Fasko (2001)</b>	Creative Teaching Model (CTM)	Creativity within teaching practice	Flexible thinking; reflection; risk-taking	Promotes sustained creative engagement
<b>Jeffrey &amp; Craft (2004)</b>	Creative Pedagogies Framework	Teacher-led facilitation	Co-construction; meaningful engagement	Shifts pedagogy from transmission to agency
<b>Puentedura (2006)</b>	SAMR Model	Technology integration	Substitute → Augment → Modify → Redefine	Separates surface vs transformative tech use
<b>Ferrari, Cachia &amp; Punie (2009)</b>	Creative Classroom Framework	System-level creativity	Curriculum; pedagogy; environment	Supports evaluation of creative teaching contexts
<b>Altshuller (1984)</b>	TRIZ	Structured innovation	Contradiction analysis; inventive principles	Useful for structured inventive problem solving

Study	Model / Framework	Core Focus	Key Processes	Instructional Relevance
Dodge, Colker & Heroman (2002)	Creative Curriculum Model	Developmental creativity	Integrated curriculum; guided discovery	Embeds creativity across domains over time

The table 5 The example provided in this section demonstrate that creative instructional methods were not the product of chance or happenstance; instead, they stem from deliberate pedagogical planning informed by established theoretical foundations. Model including Creative Problem-Solving (Osborn & Parnes, 1992), Design Thinking (Brown, 2008) and the Creative Learning Spiral (Resnick, 2017) conceptualize creativity as an iterative process encompassing ideation, experimentation, reflection and refinement. These modelos emphasize structured flexibility, guiding learneres through intentional stage while allowing for exploration and the innovation. frameworkes like the Torrance Incubation Models and SCAMPER highlight the importance of cognitive stimulation and ideational fluency, thus supporting the idea that creativity can be developed systematically, rather than relying solely on chances. At broader pedagogical level, frameworkes such as the 4Ps of Creativity (Rhodes, 1961) and the Creative Pedagogies Framework (Jeffrey & Craft, 2004) shift the focus from the specific techniques to the larger educational context, emphasizing the interaciones between the learners, instructors, processes and the learning environment. These perspectives align with contemporary conception of creativity as inherently social and the contingent upon context, thus emphasizing the importance of instructional design that promote autonomy, collaboration and the substantive engagement. technology-centric frameworkes like SAMR and the Creative Classroom Framework broaden this viewpoint by illustrating how the digital resources and institutional frameworkes can either impede or transform creative learning, depending on their pedagogical implementation. Models such as TRIZ and the Creative Curriculum demonstrate that creativity can be systematically incorporated into structured curricula without the sacrificing academic standardes, particularly within the problem-solving and the applied learning contexts. These frameworkes, when considered together, provides the strong conceptual basis for studying creativity in classrooms. They offer specific indicadores, such as iteration, learner agency, problem framing and the reflective practice which helps analyze teachers' teaching methodes. In this study, these modelos serve as analytical tools to determine how closely Jordanian EFL teachers' teaching aligns with the established creative pedagogies. This allows for detailed examination of the differences or similaritieis between perceived and actual creative teaching practice.

Table 6: Empirical Studies on Creativity and Teacher Practices.

Study (Author, Year)	Context / Sample	Key Findings (Abbrev.)	Implications for Creative Instruction (Abbrev.)
Sharma (2009)	Teacher education programs; 20 teacher educators; 30 student teachers	Creativity viewed as <i>supplementary</i> , not central to teaching	Integrate creativity systematically into teacher preparation

<b>Study (Author, Year)</b>	<b>Context / Sample</b>	<b>Key Findings (Abbrev.)</b>	<b>Implications for Creative Instruction (Abbrev.)</b>
Cachia & Ferrari (2010)	25 European countries; 500+ teachers	ICT + play-based learning enhanced creativity across subjects	Use ICT/play as scalable levers for creative teaching
Assaraf et al. (2013)	Teacher training context; 60 teachers	Trained teachers showed significantly higher creativity	Targeted creativity training is demonstrably effective
Cimenoglu (2013)	Teacher education context	Training quality, conceptual clarity, and support systems are critical	Weak support + vague concepts limit classroom creativity
Newton & Beverton (2013)	UK EFL; 120 teachers; 50 plans; 30 observations	Creativity reduced to “fun”; 78% felt unprepared	Correct misconceptions; strengthen pedagogical creativity training
Al-Nouh et al. (2014)	Kuwait EFL; 150 teachers; 40 classes; 20 interviews	85% self-rated creative, but practices remained traditional	Perception–practice gap driven by curriculum rigidity
Rajabali & Bani Mufleh (2015)	Jordan; 120 EFL students	Writing creativity hindered by limited vocabulary + rigid instruction	Reduce rigidity; scaffold language resources for creative output
Eust (2015)	Wales; 50 schools	Creative teaching depends on specialists and resourcing	Institutional capacity strongly conditions creative practice
Zhou & Brown (2015)	China; 200 teachers; 60 obs.; 30 interviews	Training improved creativity (35–40%), but class size constrained use	PD works, but must be context-sensitive (class size/time)
Tin (2016)	Myanmar EFL; 100 teachers	Teachers value creativity but lack resources/training	Without resourcing, creativity becomes superficial
Al-Mahrooqi & Denman (2016)	Oman; 180 teachers; 50 classes; 1,200 students	Creative teaching improved achievement by 25%	Strong learning gains, but cultural/institutional barriers persist
Richards & Coterall (2016)	Australia; 90 teachers	Teacher autonomy correlated with higher adoption	Teacher agency is a core driver of creative instruction
Huda (2016)	EFL vocabulary learning; 35 students	Creative techniques improved vocabulary acquisition	Creativity can produce measurable learning gains

<b>Study (Author, Year)</b>	<b>Context / Sample</b>	<b>Key Findings (Abbrev.)</b>	<b>Implications for Creative Instruction (Abbrev.)</b>
Chappell (2018)	Turkey; 35 classes	Creativity valued but constrained by exams/time	Exam-driven systems suppress sustained creative practice
Alshehri (2018)	Saudi Arabia; 200 teachers	Creativity linked to engagement, but constrained by culture	Cultural norms shape feasibility and form of implementation
Hosseini & Pourmand (2018)	Iran; 150 teachers; 500 students	Student motivation increased ~30% in creative classes	Learner benefits persist despite structural constraints
Flanders (2019)	Teacher development; 25 teachers	Professional training + intrinsic motivation foster creativity	Teacher identity/motivation sustains creative instruction
Adams et al. (2020)	Palestine & UK; 40 teachers	Cultural values shape creative teaching approaches	Avoid one-size-fits-all; creativity is context-defined
Aldhaim & Alalh (2020)	Saudi Arabia; 150 teachers	Positive attitudes exist, but confidence/training insufficient	Sustained PD needed to translate attitudes into practice
Suryani (2020)	Indonesia; 250 teachers	Teachers value creativity, but testing culture constrains use	Assessment regimes are a primary innovation bottleneck
Simpson et al. (2022)	Pre-service teachers; 72 participants	Creativity training sustained into early-career teaching	Early preparation supports long-term creative practice

The table 6 Empirical studies consistently demonstrate divergence between the educators' positive perceptions of creativity and its practical implementation in educational settings. Although teachers across diverse geographical areas, encompassing the Middle East, Europe and Asia, frequently associate creativity with increased engagement, motivation and the improved learning outcomes (Al-Mahrooqi & Denman, 2016; Hosseini & Pourmandia, 2018), their pedagogical approaches were often constrained by systemic, institutional and the pedagogical limitations. A prevalent observation was that creativity was often understood superficially, frequently equated with "fun" or activity-based learning, rather than as structured pedagogical strategy grounded in the theoretical principles and intentional design (Newton & Beverton, 2013; Tin, 2016). This conceptual ambiguity combined with the insufficient professional development, contributes to the inconsistent application of creative practices within the classroom. Professional development have proven to be the crucial factor in diverse educational contexts. Empirical evidence repeatedly demonstrates that targeted training initiatives enhance educators' confidence and their ability to effectively integrate innovative pedagogical strategies (Assareh et al., 2013; Zhou &

Brown, 2015; Simpson et al., 2022). Despite this, even well-prepared educators face systemic challenges, including rigid curricula, examination-focused environments, the high student-to-teacher ratios and insufficient resource which hinder the consistent application of creative instruction (Al-Nouh et al., 2014; Chappell, 2018; Suryani, 2020). numerous studies reveal considerable gap between the teachers' self-perceptions and their actual classroom practices, thus emphasizing the need to examine creativity not only as the theoretical construct but also as practical pedagogical approach (Newton & Beverton, 2013; Al-Nouh et al., 2014).

Cross-cultural research indicatees that the creativity was socially constructed phenomenon, contingent upon context and the influenced by cultural norms, institutional regulations and the professional independence (Adams et al., 2020; Richards & Cotterall, 2016). This perspective supportes the notion that creative instructional methodes cannot be universally applied; they the must be interpreted within the specific context of local educational environmentes. These empirical findings, taken together, offer substantial support for the present study's emphasis on Jordanian EFL teachers, where the cultural expectations, curricular limitationes and the teachers training may interact to influence both perceived and the actual creative practices. Consequently, this is synthesis highlightes the necessity of empirical investigation explicitly addressing this perception-practice disparity, thus positioning the current study within the well-established, yet still under-researched, area of inquiry.

Table 7: Empirical Studies on Teachers' Perceptions and Observed Instructional Practices

Study	Context / Sample	Research Design	Focus of Investigation	Key Findings
Cohen & Hill (2000)	USA; 150 teachers	Mixed methods	Beliefs vs. instructional change	Goals aligned with stronger practices
Hattie & Clinton (2008)	Australia; 500+ teachers	Correlational	Perceptions vs. achievement	Weak link between perceptions and outcomes
Pianta & Hamre (2009)	USA; 1,000+ classrooms	Observational	Teacher–student interactions	Emotional/instructional support predicts outcomes
Mills & Reynolds (2011)	UK; 100+ teachers	Classroom observation	Instructional practices and engagement	Feedback clarity linked to achievement
Strong et al. (2011)	USA; 300+ teachers	Mixed methods	Effective teaching behaviors	Observed practices predict success
Kane & Staiger (2012)	USA; 3,000+ classrooms	Large-scale observation	Reliability of observation systems	Trained observers assess quality reliably
Bell et al. (2012)	USA; 200 classrooms	Video-based analysis	Validity of video observation	Video captures nuanced pedagogy

Study	Context / Sample	Research Design	Focus of Investigation	Key Findings
Praetorius et al. (2014)	Germany; 50 classrooms	Comparative	Perceptions vs. observations	Student views align more with observations
Klette et al. (2017)	Nordic countries; 200+ classrooms	Cross-national observation	Consistency of practices	Underreported structured practices
Desimone & Pak (2017)	USA; 500+ teachers	Survey + observation	PD effects on practice	PD shifts perceptions and practices

The table 7 Literature consistently reveal notable divergence between educators' self-assessments of their teaching method and the practices actually evident within their classrooms. Across various the educational contexts, research suggests that the teacheres often perceive their teaching as aligned with the reform-oriented or student-centered methodologies; nevertheless, observational data frequently challenges these the self-assessments (Cohen & Hill, 2000; Pianta & Hamre, 2009; Praetorius et al., 2014). This divergence implies that the self-reported data, when the considered independently, provide the incomplete and sometimes inflated depiction of instructional quality. Moreover, research indicates that the observed the practices such as effective questioning, scaffolding, feedback and the classroom management, exhibit stronger correlation with the student engagement and achievement than do teachers' beliefs or intentiones (Hattie & Clinton, 2008; Muijs & Reynolds, 2011; Stronge et al., 2011). Evidence also suggests that educatores may either underestimate or misinterpret the extent of the student-centered methodologies they implement. Studies in Europe and the United States shows that the teacheres often rates their interactive and the student-centered teaching differently than what observers see in the classroom (Klette et al., 2017). At the same time, students' views tend to match observed teaching practices more closely than teachers' self-assessments (Praetorius et al., 2014). These finding highlight the need to use multiple data sources, such as self-reports, observations and student feedback, when evaluating teaching methods. professional development was crucial factor in this process. Teachers' perception of professional learning as pertinent, collaborative and focused on practical application correlate positively with their ability to implement novel concepts in their classroom (Desimone & Pak, 2017). even when the professional development initiatives are demonstrably effective, contextual factor including curricular requirements, assessment mandates and the established institutional practices can impede the long-term adoption of innovative approache. These investigations, taken together emphasize that the comprehensive understanding of creative instruction necessitates an examination of the interplay between the educators' belief and the contextual variable that influence their classroom practices, rather than relying solely on self-reported perceptions. Consequently, this existing body of research directly informs the current study's objective: to compare the perceived and actual creative instructional practices of Jordanian EFL teachers, thus addressing recognized disparity in the existing literature concerning the gap between the pedagogical intentions and their practical application.

#### 4. Methodology

This study uses the structured quantitative approach to systematically assess how closely EFL teachers' self-reported creative teachings methods match what they the actually do in the classroom. The research design was carefully planned to ensure that the concept being studied were accurately measured and that the

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analysis was clear and open. As shown in Figure 1, the study follows step-by-step and combined the design. It starts with the selecting participants and creating the tools, then moves on to validating the tools, collecting data and to using various statistical analyses. The figure visually summarizes how the research design examines creativity. It uses two methods: self-report questionnaire and classroom observation checklist. Both methods were based on the same thirteen areas of the teaching that encourage creativity. This alignment, depicted at the core of the flowchart, is critical to the study's central aim of identifying potential discrepancies between what the teachers believe they practice and what is observable in real instructional contexts. Figure 1 further demonstrates the logical progression from data collection to data processing and the statistical analysis using IBM SPSS, highlighting the use of both descriptive techniques (means, standard deviations and practice-level classification) and the inferential procedures (paired-samples t-tests, independent-samples t-tests and one-way ANOVA). By visually integrating validity and reliability procedures within the methodological sequence the figure reinforces the internal coherence of the research design and clarifies how methodological decisions support robust perceived actual comparisons. The methodology and its graphical representation provide the transparent and replicable framework for the examining creative instructional practices across diverse EFL educational settings.

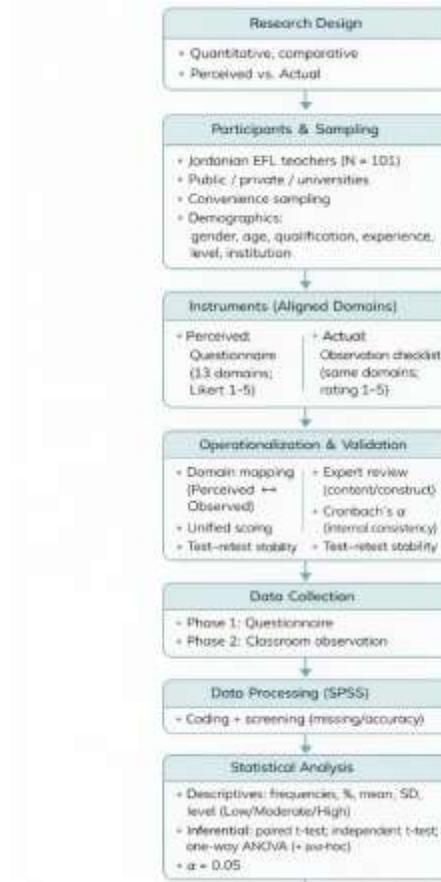


Figure 1: Methodology Flowchart

### 3.2 Participants and Sampling

The present study investigated English as Foreign Language (EFL) instructors within Jordan with the objective of furnishing a comprehensive examination of the pedagogical approaches employed across diverse educational settings. A cohort of 101 EFL teachers is involved, constituting a sufficiently heterogeneous group to accommodate variations in professional experiences, institutional affiliations, and instructional backgrounds. Participants are recruited from public schools, private schools, and institutions of higher education, facilitating the comparative examination of innovative pedagogical approaches across diverse educational settings. The incorporation of educators from varied institutional backgrounds enhanced the sample's representativeness, thus bolstering the study's ability to investigate the impact of contextual variables on both perceived and actual classroom practices.

Regarding gender distribution, the sample comprised both male and female educators, although female participants constitute a larger proportion. This distribution mirrors the demographic composition of the teaching profession within the local context, thereby ensuring that the study's conclusions are firmly rooted in genuine educational practices. The sample encompassed a broad spectrum of age groups, with the majority of participants situated in mid-career stages. This characteristic facilitated insights derived from

considerable professional experiences as opposed to those in the early or transitional phases of their teaching careers. The academic qualifications of the participants varied including the holders of bachelor's, master's, and doctoral degrees. This diversity allowed for the inclusion of educators with different levels of teaching training and academic backgrounds, which helped create a more nuanced understanding of teaching methods. The participants have varied teaching experience from those just starting their careers to highly experienced professionals with over fifteen years in the field. This range of experience allowed for meaningful comparisons of professional developments and the improvements in the teaching. The participants also represented a variety of educational levels, including the primary, middle, secondary and higher education institutions. The broad scope of this study facilitates an examination of the novel teaching method across various stages of cognitive developments and maturation in learners, thereby augmenting the interpretive significance of the results. Convenience sampling, predicated on participant availability and willingness, served as the sampling method. While this approach does not prioritize statistical generalization, it was well-suited to exploratory and descriptive research designs that seek to investigate patterns, trends and relationships within the authentic educational contexts. The sample's heterogeneity encompassing diverse demographics and professional attributes, bolsters the reliability and depth of the data acquired.

Table 8: Distribution of the Sample by Demographic and Professional Characteristics

			Frequency	Percent
Gender	Male		29	28.7
	Female		72	71.3
Age	20-30		13	12.9
	31-40		36	35.6
	41-50		49	48.5
	51+		3	3.0
Highest Qualification	Academic	Bachelor's degree	64	63.4
		Master's degree	15	14.9
		PhD	22	21.8
Years of Teaching Experience	Teaching	0-5	17	16.8
		6-10	25	24.8
		11-15	21	20.8
		16+	38	37.6
Current Teaching Level	Primary School		38	37.6
	Middle School		28	27.7

Institution Type	Secondary School	30	29.7
	University	5	5.0
	Public School	82	81.2
	Private School	15	14.9
	University	4	4.0
	Total	101	100.0

### 3.3 Research Instruments

To thoroughly assess both how to creative teaching was perceived and how it's actually used, two different tools were used together. The first tool gathers teachers' self-reported views on their creative teaching methods. The second tool, on the other hand, observes these same methodes in the action in the classroom. Using the similar conceptes in these two tools helps ensure they measure the same thing. This allows for fair comparison between what teacheres say they believe and how they are actually teach.

#### 3.3.1 Perceived Creative Instructional Practices Questionnaire

Teachers' views on their creative teaching methodes are assessed using structured questionnaire. This questionnaire focused on thirteen teaching areas that the support creativity. The questionnaire items are designed to measure how often and how consistently these methodes are used in their daily teaching. Participantes used five-point Likert scale (1–5) to answer with the higher scores indicating greater agreement with or more frequent use of the practice. This scale allowed for scoring in each specific area of creativity as well as the general score for perceived practice which is calculated by combining the scores from all the areas.

#### 3.3.2 Actual Creative Instructional Practices Observation Checklist

To evaluate the actual classroom behavior, the observation checklist was utilized, reflecting the thirteen domains evaluated in the questionnaire. This checklist operationalize each domain into observable teacher behavior and classroom indicator , thus enabling organized recording of instructional methods. Observational ratings were recorded using the same 1–5 scoring system, which ensures the comparability of perceived and actual measures at both the domain-specific and the overall composite levels.

#### 3.3.3 Construct Operationalization and Measurement Mapping

Table M2 provides the clear overview of how each domain was defined and measured using the two instrumentes. It also includes the data source and the scoring range used in the analysis.

Table 9: Operational Definition of Constructs and Measurement Sources

Creativity-Supportive Instructional Domain	Perceived Measure (Questionnaire)	Actual Measure (Observation)	Score Range	Scoring Direction
Making comparisons	Self-report rating for this domain	Observed indicators for this domain	1–5	Higher = stronger/more frequent practice

Categorizing	Self-report rating for this domain	Observed indicators for this domain	1–5	Higher = stronger/more frequent practice
Sequencing	Self-report rating for this domain	Observed indicators for this domain	1–5	Higher = stronger/more frequent practice
Focusing attention	Self-report rating for this domain	Observed indicators for this domain	1–5	Higher = stronger/more frequent practice
Memorizing	Self-report rating for this domain	Observed indicators for this domain	1–5	Higher = stronger/more frequent practice
Exploring space	Self-report rating for this domain	Observed indicators for this domain	1–5	Higher = stronger/more frequent practice
Exploring time	Self-report rating for this domain	Observed indicators for this domain	1–5	Higher = stronger/more frequent practice
Exploring numbers	Self-report rating for this domain	Observed indicators for this domain	1–5	Higher= stronger/more frequent practice
Creating associations	Self-report rating for this domain	Observed indicators for this domain	1–5	Higher = stronger/more frequent practice
Analysing cause–effect	Self-report rating for this domain	Observed indicators for this domain	1–5	Higher = stronger/more frequent practice
<i>(Domain 11)</i>	Self-report rating for this domain	Observed indicators for this domain	1–5	Higher = stronger/more frequent practice
<i>(Domain 12)</i>	Self-report rating for this domain	Observed indicators for this domain	1–5	Higher = stronger/more frequent practice
<i>(Domain 13)</i>	Self-report rating for this domain	Observed indicators for this domain	1–5	Higher = stronger/more frequent practice

### 3.4 Validity and Reliability

To ensure the research tool's accuracy, consistency and reliability, several method are used to establish the validity and the reliability of the instrument designed to measure the both perceived and actual creative instructional practices.

### 3.4.1 Validity

Content validity is evaluated via the structured review conducted by panel of expert with the backgrounds in English language instruction, curriculum design and educational assessment. These the specialistes meticulously examined each items, assessing it is clarity, relevance and alignment with the conceptual framework that the supportes creatives instructionales practices. Based on their evaluations, minor linguistic modifications are made to improve the clarity and the eliminate potential ambiguity while ensuring the preservation of the intended constructs. To further assess construct the validity, item total correlation coefficients are calculated for the each item within the perceived creative instructional practiceis questionnaire. The analysis demonstrated strong and significantes correlations between the individual itemes and the overall scale score, thereby confirming the contribution of each item to the overall construct. As the result no itemes are excluded, given that the all met the established correlations thresholds.

Table 10: Correlation Coefficients between Each Item and the Total Score for the Creative Instructional Practices Questionnaire

Item #	R (with total score)
1	0.91
2	0.93
3	0.88
4	0.94
5	0.91
6	0.95
7	0.81
8	0.82
9	0.94
10	0.90
11	0.87
12	0.81
13	0.90

### 3.4.2 Reliability

The reliability of the research tools is assessed using two methods : internal consistency reliability and the test retest reliability. Internal consistency reliability is gauged through the Cronbach's alpha coefficients; the computed value of  $\alpha = 0.87$  indicated considerable level of the internal consistency among the items the

thus confirming the scale's capacity to consistently measure the unified constructs. To evaluate temporal stability the test-retest reliability procedure is employed. The questionnaire is administered to the subset of participants on the two separate occasions, with the two-week interval between the administrations. The resulting correlation coefficient,  $r = 0.91$ , showed strong stability over time. This supports the instrument's ability to produce consistent results.

### 3.5 Data Collection and Data Analysis Procedures

The data collection process is conducted in two separate stages, corresponding to the two measurement instruments utilized in this study. Initially, the educator involved completed the questionnaire intended to evaluate their self-reported creative instructional methods. Classroom observations are performed, employing the structured observation checklist to record the instructional practices that are actually observed. To ensure that the comparability of the data across participants, all the data are collected within the defined timeframe and under the consistent conditions. Participation in the study is entirely voluntary and the confidentiality is maintained throughout the entire process.

Following data collection, the responses undergo coding and the subsequent analysis via IBM SPSS Statistics. Prior to conducting any inferential analyses, the data were subjected to checks for the completeness, accuracy and the consistency. Descriptive statistics were computed to provide a summary of the participants' demographic characteristics and to offer the overviews of the creative instructional practices they reported perceiving and those they reported using.

To assess the effectiveness of creative teaching methods we used the average scores which are then categorized based on specific cut-off points from the Likert scale. The average values are then interpreted as follows:

- 1.00–2.33 = Low level of the practice
- 2.34–3.67 = Moderate level of the practice
- 3.68–5.00 = High level of the practice

To ensure consistent understanding of the results these classification thresholds were used uniformly across all dimensions and the analyses.

Descriptive statistics including the means and the standard deviations are calculated for each of the thirteen domains of creative instructional practice, taking into account both perceived and actual practices. These analyses provided initial insights into the general patterns and the trends that define the teachers' instructional behaviors.

Paired-samples t-tests were used to investigate the differences between teachers' perceptions of their creative teaching and their actual practices. This method allows for the comparisons of what educators say they do with what was seen in their classrooms. Effect sizes were calculated when appropriate, to measure the size of the differences found.

Inferential analyses were performed to determine whether the creative instructional practices varied across demographic variables. Independent-samples t-tests were used to examine gender-based differences, while one-way analysis of variance (ANOVA) was employed to assess differences related to the years of teaching experiences and educational attainments. When the significant differences were found, post-hoc comparisons were then conducted to identify the specific sources of the variations.

Statistical analyses are performed using IBM SPSS Statistics with the standard alpha level of 0.05 used to determine the statistical significance. The results to these analyses were presented in the following sections, organized by the study's researchs questions and the analytical methodes used.

Table 11: Statistical Analysis Plan

Analysis Purpose	Statistical Test	Output
Participant characteristics	Frequencies & percentages	Descriptive profile
Perceived practices	Mean, SD	Level of perceived creativity
Actual practices	Mean, SD	Level of observed creativity
Perceived vs. actual comparison	Paired-samples t-test	Mean difference, <i>t</i> , <i>p</i>
Gender differences	Independent-samples t-test	Group comparison
Experience / school type	One-way ANOVA	Group comparison

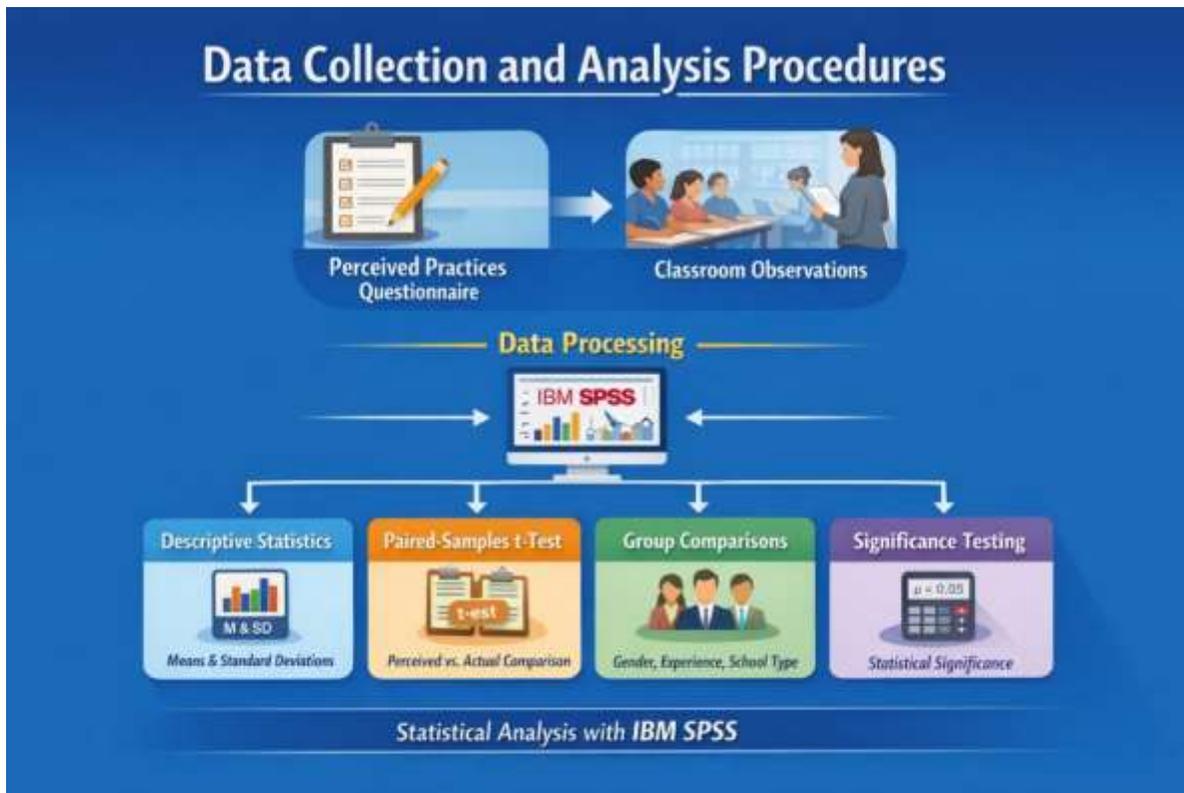


Figure 2: Data Collection and Analysis Framework

Figure 1 The following figure illustrates that the systematic process of the data collectiones and the analysis used in this study, highlighting the integrations to perceived and actual instructional practices within the unified analytical framework. The figure shows that how data are gathered from the two sources: self-report questionnaire that captured teachers' perceived creative instructional practices and structured classroom observations that the documented their actual instructionals behavior. This dual-source approach strengthens the study's methodological rigor by allowing the direct comparison between the teachers' beliefs and their enacted practices, thus reducing the reliance on the self-reported data alone. After the data collection all responses are processed using the IBM SPSS. Descriptive statistics are first calculated to the identify overall patternes and the level of creative instructional practices. Inferential analyses, including paired-samples t-tests and the group comparisons, are employed to examine the discrepancies between the perceived and actual practices as well as variations across demographic factors such as the gender, teaching experience and the school type. The utilization of these diverse analytical methodes enhances the reliability of the findings, providing the comprehensive understanding of the conceptualization and the implementation of creative instructional practices within the real-world classroom environments.the figure visually illustrates the logical progressions from data collections to the statistical assessment, thereby reinforcing the study's methodological rigor.

## Results

Table 12: Case Processing Summary

		N	%
Cases	Valid	77	76.2
	Excluded <sup>a</sup>	24	23.8
	Total	101	100.0

The statistical screening results, as detailed in Table 12, validate the dataset's suitability for dependable inferential analysis. From the initial samples of 101 participants, 77 cases (76.2%) were deemed valid and included in the analysis, whereas 24 cases (23.8%) were excluded due to missing or incomplete the data. Despite the exclusion rate approaching quarter of a original sample, the remaining cases surpass the established threshold for the internal consistency analysis and descriptive interpretation within educational research. the exclusion process ensured that the only fully completed creativity scales were analyzed, thus minimizing measurements error and response noises. This approach directly supportes the study's objectives by ensuring that the subsequent interpretations of perceived creativity were based on complete and methodologically sound data.

Table 13: Reliability Statistics

Cronbach's Alpha	N of Items
.919	13

The reliability analysis, as detailed in Table 13, offers the strong statistical evidence supporting the internal consistency of the perceived creative instructional practices scale. Cronbach's alpha coefficient of  $\alpha = 0.919$ , calculated from 13 items, indicates excellent reliability which suggests the considerable degree of inter-item correlations. According to the established standards, alpha values above 0.90 were indicative of the highly cohesive constructs. This finding implies that the scale items collectively measuring single latent dimensions of the perceived creative instruction, rather than the collection of unrelated teaching behaviors. This result is crucial to the study's primary objectives, as it validates the use of the composite perceived-creativity scores. Any subsequent discrepancies observed between the perceived and the actual practices cannot be attributed to scales instability or the inadequate constructs definitions.

Table 14: Item Statistics

	Mean	Std. Deviation	N
P_Comparisons	3.636	1.2238	77
P_Categorizing	3.701	1.1247	77
P_Sequencing	4.000	1.0131	77
P_FocusingAttention	3.857	1.0968	77
P_Memorizing	3.818	1.0849	77
P_ExploringSpace	3.403	1.2168	77
P_ExploringTime	3.519	1.1766	77
P_ExploringNumbers	3.571	1.1520	77
P_CreatingAssociations	4.052	1.1109	77
P_AnalyzingCauseEffect	3.922	1.0609	77
P_MakingDecisions	3.649	1.0609	77
P_SolvingProblems	3.870	1.0557	77
P_CreativeThinking	3.325	1.1173	77

Table 14 item-level descriptive statistics offers the more detailed view of the educators' diverse perspectives on their creative teaching methods. The average item scores, ranging from  $M = 3.325$  ( $SD = 1.1173$ ) to  $M = 4.052$  ( $SD = 1.1109$ ) on the five-points Likert scale, indicate the general tendency towards moderate-to-high self-reported creativity. The Creating Associations dimensions demonstrated the highest mean ( $M = 4.052$ ,  $SD = 1.1109$ ), followed by Sequencing ( $M = 4.000$ ,  $SD = 1.0131$ ) and Analyzing Cause Effect ( $M = 3.922$ ,  $SD = 1.0609$ ). These dimensions, which reflect the structured cognitive processes are frequently essential to conventional lesson planning and the curriculum sequencing; teachers seem to exhibit the greatest confidence in their creative implementation when it is aligned with organizing the instructional control.

Table 15: Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Cronbach's Alpha if Item Deleted
P_Comparisons	44.688	88.717	.735	.910
P_Categorizing	44.623	89.738	.759	.909
P_Sequencing	44.325	91.433	.759	.910
P_FocusingAttention	44.468	90.910	.720	.911
P_Memorizing	44.506	90.674	.741	.910
P_ExploringSpace	44.922	92.546	.561	.917
P_ExploringTime	44.805	91.633	.628	.914
P_ExploringNumbers	44.753	93.162	.570	.917
P_CreatingAssociations	44.273	91.622	.673	.913
P_AnalyzingCauseEffect	44.403	93.112	.632	.914
P_MakingDecisions	44.675	91.064	.740	.910
P_SolvingProblems	44.455	94.804	.547	.917
P_CreativeThinking	45.000	95.658	.470	.920

The item-level psychometric data presented in Table 15 further supports the measurement rationale, clarifying the construct's most significant dimensions. The Corrected Item Total Correlations (CITC) initially span from 0.470 to 0.759, demonstrating considerable strength. The Values surpassing approximately 0.30 generally signify acceptable discrimination, while those exceeding roughly 0.50 indicate the good-to-excellent item contributions. The most prominent CITCs were associated with Categorizing (0.759) and Sequencing (0.759), succeeded closely by Memorizing (0.741), Making Decision (0.740), and Comparison (0.735). These elevated correlations suggest strong alignments of these items with the overall perceived creativity constructs, as assessed by the instruments; they effectively distinguish between educators who report higher and lower levels of the creativity-supportive practices.

Table 16: Scale Statistics

Mean	Variance	Std. Deviation	N of Items
48.325	107.170	10.3523	13

The scale-level distribution in detailed in the Table 16 (Scale Statistics) provides the quantitative assessments of the educators' views on their creative instructional practices. The overall scale mean is  $M = 48.325$  accompanied the variance of 107.170 and the standard deviation of 10.3523, derived from the 13 items. This means corresponds to average per-item score of roughly  $48.325 / 13 = 3.717$  which implies the moderate-to-high perception of the creativity-supportive instruction. The standard deviation of 10.3523 signifies the considerable degree of variability among the teachers. Standardized scores indicate that the significant proportion of the participants' responses were concentrated within one standard deviation of the mean, approximately between 37.97 and the 58.68 on the summed scale. This finding suggests authentic disparities in the perception of creativity within the sample, as opposed to the tendency towards response uniformity. This degree of variance proved analytically significant for the study's aims;

the perception scale exhibiting the adequate spread is able to effectively predict group differences and can be compared to observed the practices without the confounding influence of the ceiling effect.

Table 17: Case Processing Summary

		N	%
Cases	Valid	101	100.0
	Excluded <sup>a</sup>	0	.0
	Total	101	100.0

The diagnostic results in the Table 17 confirm that the dataset used for the currents scale calculation was completes, with 101 valid cases (100.0%) and no excluded cases (0.0%). This was important because that missing data can affect item total estimate and internal consistency measures. using the complete data improve the stability of coefficient estimate and allows for the unbiased assessment of the reliability and scale performance. This directly supports the study's goal by ensuring that the perceived creativity scale used as the reference for later comparisons of perceived and actual creativity, was calculated using the entire sample. This maximizes both representativeness and statistical powers.

Table 18: Reliability Statistics

Cronbach's Alpha	N of Items
.952	14

Table 18 findings provides the strong psychometric supports for the observation-based evaluations of instructional practices that foster creativity. The observation checklist exhibited Cronbach's  $\alpha$  of 0.952 across it is 14 itemes, which signifies outstanding internal consistency. This result implies that the checklist items function cohesively, act as the indicators of the common underlying constructs: observable creativity-supportive teaching. alpha coefficient above 0.95 was typically regarde as indicative of the exceptionally high reliability.The observed variability in practice scores likely did not stem from random item-level fluctuations. This finding was critical to the study's aims, given that the central research design hinges on comparing perceived and actual practices. These comparisons are only meaningful if both the measurement instruments demonstrated the strong measurements quality; Table 18 supports the consistency and internal reliability of the "actual practice" metrics.

Table 19: Item Statistics

	Mean	Std. Deviation	N
A_Comparisons	3.5049504950495 05	1.1368708139119 21	101

A_Categorizing	3.4158415841584	1.1770074488521	101
	16	58	
A_Sequencing	3.5841584158415	1.1854731269216	101
	84	80	
A_FocusingAttention	3.4356435643564	1.1261957341790	101
	36	85	
A_Memorizing	3.5049504950495	1.1456331208221	101
	05	74	
A_ExploringSpace	3.5841584158415	1.0417996614769	101
	84	39	
A_ExploringTime	3.3267326732673	1.1055216948670	101
	27	81	
A_ExploringNumbers	3.2475247524752	1.1610851871767	101
	48	16	
A_CreatingAssociations	3.5049504950495	1.0547394216225	101
	05	89	
A_AnalyzingCauseEffect	3.5346534653465	1.1624487639087	101
	35	03	
A_MakingDecisions	3.4257425742574	1.1255801584379	101
	26	97	
A_SolvingProblems	3.4059405940594	1.0786864031940	101
	06	16	
A_CreativeThinking	3.1980198019801	1.1403490867291	101
	98	29	
A_Mean	3.4364051789794	.87002066974637	101
	36	8	

Table 19 descriptive statistics provide the detailed examinations of the expressions of creativity-supportive behaviors observed in the classroom, organized by domain. The means across the observed items range from  $M = 3.1980$  to  $M = 3.5842$ , with the total of  $N = 101$  observations. The overall observed average is  $A\_Mean = 3.4364$ , with standard deviation of  $SD = 0.8700$ . These results indicate that instances of creativity-supportive instruction, as observed, generally occupy the mid-range position, rather than being concentrated at the high frequency and they demonstrate considerable variability among different educators. The highest average scores are found in Sequencing ( $M = 3.5842$ ,  $SD = 1.1855$ ) and Exploring Space ( $M = 3.5842$ ,  $SD = 1.0418$ ), followed by Analyzing Cause–Effect ( $M = 3.5347$ ,  $SD = 1.1624$ ). These areas are represent organized cognitive structures (sequencing), guided exploration (exploring space) and analytical reasoning (cause–effect). the data suggests that teachers were more likely to use strategies that support creativity when they were combined with structured teaching and cognitively supportive activities.

Table 20: Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Cronbach's Alpha if Item Deleted
A_Comparisons	44.6047220106 62610	128.487	.721	.949
A_Categorizing	44.6938309215 53705	127.135	.747	.948
A_Sequencing	44.5255140898 70530	127.230	.738	.948
A_FocusingAttention	44.6740289413 55690	125.734	.846	.945
A_Memorizing	44.6047220106 62610	125.298	.848	.945
A_ExploringSpace	44.5255140898 70530	129.516	.749	.948
A_ExploringTime	44.7829398324 44790	128.479	.745	.948
A_ExploringNumbers	44.8621477532 36870	127.864	.729	.948
A_CreatingAssociations	44.6047220106 62610	131.408	.655	.950
A_AnalyzingCauseEffect	44.5750190403 65580	130.032	.640	.951
A_MakingDecisions	44.6839299314 54700	129.207	.699	.949
A_SolvingProblems	44.7037319116 52710	128.665	.757	.948
A_CreativeThinking	44.9116527037 31920	130.608	.631	.951
A_Mean	44.6732673267 32685	127.922	1.000	.943

The psychometric assessments presented in Table 20 strongly support the validity of the actual/observed creativity checklist as the consistent and the differentiating measurement instrument. The Corrected Item–Total Correlations (CITC) are uniformly elevated, spanning from 0.631 (A\_CreativeThinking) to 0.848 (A\_Memorizing), with especially robust discrimination observed for A\_FocusingAttention (CITC = 0.846) and A\_Memorizing (CITC = 0.848). These value suggest that the each individual item significantly contributes to the overall observed-practice construct and that the checklist effectively distinguishes between the educators exhibiting varying degrees of observable creativity-supportive instruction. the “Cronbach’s Alpha if Item Deleted” figures were closely grouped, ranging from 0.945 to 0.951 across all items (0.945 when or A\_Memorizing is removed; 0.951 when A\_AnalyzingCauseEffect or A\_CreativeThinking is excluded), while the overall alpha value previously reported was 0.952. Statistical examination indicates that no single item disproportionately affects reliability; the elimination of any

individual item leads to a slight decrease (or an inconsequential change) in alpha, thus confirming the scale's robustness. The Scale Mean if Items Deleted Values (44.5255 upon deleting A\_Sequencing; 44.9117 upon deleting A\_CreativeThinking) and the corresponding Variances (125.298 when A\_Memorizing is removed; 131.408 when A\_CreatingAssociations is removed) further illustrate that the item removal does not substantially influence the scale's central tendency, thereby reinforcing internal consistency. In the alignment with the paper's aim to establish an accurate "actual practice" baseline for subsequent perceived actual comparison, Table 20 provided the requisite measurements validation: the observational tool demonstrates both reliability and the robust psychometric characteristics.

Table 21 : Scale Statistics

Mean	Variance	Std. Deviation	N of Items
48.109672505712120	148.359	12.180289376449188	14

Table 21 provides the quantitative evaluation of the overall level and the distribution of observed creativity. The summed score produced the mean of  $M = 48.1097$ , variance of 148.359 and SD of 12.1803 across the 14 items. An item-by-item analysis revealed an average of approximately  $48.1097 / 14 = 3.4364$ . This figure was consistent with the previously reported A\_Mean, indicating the moderate level of the observable creativity-supportive instruction. The substantial standard deviation (12.1803 on the summed scale) indicates considerable variability among teachers' observable practices. This variability is analytically significant for the study's purpose, as it allows meaningful differentiations when comparing groups based on the experiences or the institution type and when quantifying the perceived-actual gaps without encountering significant ceiling effects.

Table 22: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
P_Comparisons	101	1	5	3.66	1.151
P_Categorizing	101	1	5	3.73	1.122
P_Sequencing	101	1	5	4.00	1.049
P_FocusingAttention	101	1	5	3.90	1.034
P_Memorizing	77	1.0	5.0	3.818	1.0849
P_ExploringSpace	101	1	5	3.47	1.188
P_ExploringTime	101	1	5	3.55	1.109
P_ExploringNumbers	101	1	5	3.57	1.203
P_CreatingAssociations	101	1	5	4.04	1.157
P_AnalyzingCauseEffect	101	1	5	3.91	1.096
P_MakingDecisions	101	1	5	3.67	1.096
P_SolvingProblems	101	1	5	3.88	1.089
P_CreativeThinking	101	1	5	3.44	1.126
Valid N (listwise)	77				

Table 22 presents descriptive statistics that illuminate the distributional properties of the perceived-practice domains within the analyzed dataset. The sample size for the most perceived items is  $N = 101$ , representing the complete scale (minimum = 1, maximum = 5). For examples, P\_Sequencing ( $M = 4.00$ ,  $SD = 1.049$ ), P\_CreatingAssociations ( $M = 4.04$ ,  $SD = 1.157$ ), and P\_FocusingAttention ( $M = 3.90$ ,  $SD = 1.034$ ) serve as illustrative cases. These results imply that the teachers' perceptions are marked by both a moderately elevated average and the substantial variability, as indicated by standards deviations concentrated around  $\sim 1.0$ – $1.2$ . this suggests lack of consensus, with the self-assessments demonstrate heterogeneity. The perceived item, P\_Memorizing, is assessed using data from 77 participants ( $M = 3.818$ ,  $SD = 1.0849$ ). Because the listwise valid  $N$  was also 77, any multivariate analyses of the perceived practice, which require complete data, are limited to these 77 respondents. This is the crucial statistical point for the study. when comparing perceived and actual practices or calculate composites scores using the listwise methods, the effective sample size could be reduced to 77. This reduction could affect the statistical power and the accuracy of the estimated differences.

## Conclusion

This study aimed to examine the alignment between the Jordanian EFL teachers' self-reported creative teaching methods and their actual classroom practices, thus investigating the critical yet often overlooked dimension of creativity in language instruction. Employing both self-report and observational techniques, the research findings provide strong empirical evidence of the persistent gap between teacher perceptions and their actual practices although educators in general favored creativity-promoting as a strategic classroom practice. The observation revealed more than limited and inconsistent application across the different creativity-related domains, particularly those associated with higher-order cognitive skills and open-ended exploration. These results suggest that while positive attitudes toward creativity were important, sufficient to ensure a consistent implementation of creative pedagogy within EFL contexts, the expression of creativity appears constrained by a combination of conceptual ambiguity, an aversion to pedagogical risk-taking, and institutional pressures that prioritize content delivery and assessment-focused teaching practices. These observations underscore the need to reform professional development programs, emphasizing practical, classroom-applicable strategies that support the integration of creativity within the confines of existing curricula and assessment frameworks. Teacher training should move away from advocating for creativity and instead focus on modeling, practice-based coaching and reflective observation, thus aiding educators in systematically incorporating creativity into lesson planning, instructional methods and assessment strategies. Future research endeavors should expand the scope of this field by employing longitudinal and mixed methodologies to examine the temporal evolution of creative instructional techniques and the impact of continuous professional development on the perceived-actual gap. Subsequent studies could incorporate student learning outcomes and learner viewpoints to strengthen the correlations between creative pedagogy and language proficiency while also investigating the effects of policy and school-level factors on teacher capacity to integrate creativity within diverse EFL contexts.

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