Participatory Leadership, Teacher Creative Thinking and Instructional Preparedness in Basic Schools: Evidence from the Kwadaso Municipality

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Abstract
This study investigated the role of participatory leadership in enhancing teachers' creative thinking and instructional preparedness within the Kwadaso Municipal Assembly in Kumasi. A mixed-method research design, combining quantitative and qualitative approaches, was employed to provide a comprehensive understanding of the relationships among the variables. Purposive and simple random sampling techniques were used. Quantitative data were collected from 261 teachers and analysed using descriptive statistics to summarise responses, correlation analysis to examine relationships among constructs, and regression analysis to assess the predictive power of participatory leadership on teacher outcomes. Complementing the quantitative phase, qualitative data from 18 headteachers were gathered through open-ended items and analysed using Atlas.ti to identify thematic patterns that supported the statistical findings. Out of a total population of 767, the sample size for the study was 297. The results showed a strong positive correlation between participatory leadership and teachers' creative thinking ($r = 0.825$, $p = 0.000$). Similarly, participatory leadership demonstrated a strong positive correlation with instructional preparedness ($r = 0.926$, $p = 0.000$). Regression analysis further revealed that even in the absence of participatory leadership, creative thinking ($\beta = 0.744$) remains statistically significant, whereas instructional preparedness ($\beta = 0.388$) may depend on additional contributing factors. The study concluded that headteachers should adopt and strengthen participatory leadership practices, actively involve teachers in school-level decision-making, and provide continuous professional learning opportunities to foster creative thinking and enhance instructional preparedness. It was recommended that education authorities should provide adequate resources and supportive environments that encourage collaboration, innovation, and continuous improvement in teaching and learning at the basic level.

Keywords: Creative thinking, instructional preparedness, participative leadership, teaching and learning.

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Introduction

Leadership is fundamentally about creating conditions that enable individuals to contribute meaningfully to shared goals and achieve extraordinary outcomes (Kouzes & Posner, 2012). They emphasised that effective leadership is driven by vision, conviction, and courage-qualities that empower individuals through recognition, motivation, and confidence-building. Leadership requires awareness of evolving future demands, enabling leaders to guide their organisations toward growth and transformation (Esenyel, 2024). Keith (2010) similarly argued that leadership is not merely a matter of personal attributes but a practical act of inspiring hope, unity of purpose, and enthusiasm among followers to pursue shared aspirations.

In the educational context, participatory leadership has gained prominence as a leadership model that engages stakeholders in decision-making. Yukl (2010) describes participatory leadership as the deliberate effort by leaders to involve others in significant decisions through consultation, shared decision-making, and delegation. The power of leadership lies in influence, where leaders encourage collaboration, commitment, and support for organisational initiatives. Participatory leadership thus contributes to enhanced decision quality, greater policy acceptance, higher job satisfaction, and the development of professional skills among team members.

Schools serve as critical institutions for national development, and teachers are central to educational outcomes. Koech and Mwei (2020) highlight that no educational system can progress without effective teachers who are adequately equipped to inspire learners and facilitate learning. Therefore, developing teacher competencies, especially creativity and instructional preparedness, is a foundational requirement for educational quality. Programs that enhance teachers' professional capacity expand their pedagogical skills, competence, innovation, and responsiveness to diverse learners' needs, often through creative thinking. Creative thinking, as defined by Kabukcu (2015), is the ability to generate new and innovative ideas to solve problems. In schools, teacher creativity manifests in designing engaging lessons, integrating technology, applying active learning strategies, and adapting teaching methods to learners' differences. Creativity also fosters adaptability in the face of evolving educational challenges. Leadership directly influences teacher creativity by creating environments that encourage experimentation, support professional collaboration, and recognise innovative instructional practices.

Likewise, instructional preparedness - the readiness of teachers to plan, deliver, and evaluate teaching effectively is shaped by leadership style. However, participatory leaders promote collaboration, reflective practice, and ongoing professional development. Leaders who foster shared purpose and emotional support enhance teachers' commitment to effective instructional planning and creativity. The 21st century has brought complexities such as technological advancement, globalisation, and collaborative work structures, which require a shift in educational leadership practices (Mulford, 2003). Interestingly, in Ghana, school leadership significantly influences teaching and learning outcomes (Suaka & Kuranchie, 2018). Yet many school leaders rely more on personal experience than on formal leadership training (Kayiwa, 2011; Nthenya, 2012), which limits their ability to respond to reform demands.

Ghana's educational reforms, including the 1987 JSS reform and the Free Compulsory Universal Basic Education (FCUBE) initiative, emphasised the improvement of school leadership and teaching quality (GES, 2001; 2010a; 2010b). The introduction of the National Teachers' Council (NTC) standards and the Education Strategic Plan (ESP) 2016-2030 aligns with Sustainable Development Goal 4, aiming to promote quality education through creativity,

innovation, and teacher competency. Afful-Broni (2014) underscores leadership as essential to institutional success, emphasising collective vision, teamwork, and effective supervision. Educational supervision ensures that teaching practices align with learner needs and curriculum expectations (U-Sayee & Adomako, 2021), reinforcing the critical role of headteachers in shaping instructional quality.

To a large extent, globally, creativity and innovation are increasingly recognised as essential educational outcomes. Scholars such as Richardson and Mishra (2017) and Simonton (2019) argue that creativity in schools drives social, economic, and cultural development. Schools operate as creative ecosystems that thrive on collaboration, shared learning, and adaptability (Harrington, 2011; Zamana, 2021). In such contexts, participatory leadership serves as a catalyst for enhancing teacher creativity and instructional excellence through trust-building, shared decision-making, and open communication.

Despite extensive literature on leadership and teaching performance, empirical research examining how participatory leadership influences teacher creativity and instructional preparedness, particularly in basic education settings in Ghana, remains limited. Reports and studies by the President's Committee on Education Reforms (RPCRERG, 2002), Bush and Jackson (2002), Darling-Hammond et al. (2008), and Germuth (2012) confirm the strong relationship between leadership and teaching quality. Yet there remains a gap in understanding how participatory leadership shapes teacher behaviour and outcomes under the Standards-Based Curriculum introduced by GES in 2019.

Preliminary observations from the Kumasi Metropolis, particularly within the State Experimental Basic Schools in the Danyame Circuit, revealed notable contrasts in teacher collaboration, innovation, and instructional planning between schools led by participatory versus uninvolved headteachers. Schools with participatory leadership show stronger teamwork, improved lesson preparation, and creative instructional practices. Conversely, uninvolved leadership correlates with fragmented planning, lower teacher morale, and instructional delays.

The relevance of exploring this relationship is grounded in several key considerations:

1. Leadership remains a primary determinant of school effectiveness, second only to classroom instruction.
2. The shift toward competency-based and outcomes-based education requires leaders who can cultivate supportive learning environments.
3. Context-specific leadership research in developing countries remains limited but necessary.
4. Rapid reforms, digital learning demands, and shifting learner demographics increase the urgency for adaptive leadership.
5. Instructional preparedness serves as the operational link between education policy and classroom implementation.
6. Understanding the interplay between leadership, creativity, and instructional readiness can inform teacher training, supervision models, and school improvement strategies.

Therefore, studying participatory leadership in relation to teachers' creative thinking and instructional preparedness is essential to strengthening teaching and learning in Ghana's basic education system, particularly within evolving curriculum frameworks and contemporary educational demands.

Ghana, as a developing nation, has made continuous efforts to improve its educational system to support national development. These reforms have focused particularly on ensuring the provision of quality basic education for school-age children (Suaka & Kuranchie, 2018). As the educational landscape evolves, the need for effective leadership in schools has become increasingly important. Headteachers are recognised as the central figures in managing schools and ensuring the effective implementation of educational reforms (RPCRERG, 2002). Their leadership practices directly influence school improvement, teacher performance, and student learning outcomes.

A key element necessary for progressing education in Ghana is creativity. Creativity is described as a mental state where various intelligences work together to enable individuals to think, innovate, and generate original ideas. It involves imagination, problem-solving, and appreciation of aesthetics, while emphasising novelty, effectiveness, and ethical considerations (Connecting Classroom by British Council, UKAID). In the context of education, fostering creativity is essential for preparing learners to adapt to changing global demands. However, several reviews of Ghana's education system reveal that many of the challenges faced by schools stem from weaknesses in leadership and management (RPCRERG, 2002). For example, the policy initiative "Education for All" aimed to increase school enrollment (Bohan-Jacqot, 2015). Similarly, the National Teacher Education Curriculum Framework led by Prof. Salifu prioritised training more qualified teachers to support increased student numbers. Darling-Hammond et al. (2008) further emphasised that teacher leadership plays a crucial role in enhancing instructional quality, but it is most effective when supported by collective leadership, just as Bush and Jackson (2002) stress that successful schools consistently exhibit strong leadership as a determining factor in high performance.

Additionally, Germuth (2012) adds that empowering teachers with leadership skills enhances their ability to collaborate and contribute to school improvement. Despite these findings, limited research has examined how leadership influences teacher creative thinking and instructional preparedness for organisational success. This gap became particularly evident in 2019, when the Ghana Education Service introduced the Standards-Based Curriculum. In the State Experimental Basic Schools within the Danyame Circuit of Kumasi, some headteachers were proactive and participatory in supporting teachers to adapt to the new curriculum. These leaders encouraged collaboration and provided teaching materials, which helped teachers implement the new system effectively. Conversely, in schools where headteachers were thereby reducing valuable instructional time. These observations motivated the researcher to explore how participatory leadership influences teacher creative thinking and instructional preparedness. Reviewing in basic schools in the Kwadaso Municipality.

Therefore, the current study aims to address this gap by examining how participative leadership practices among headteachers in the Kwadaso Municipality enhance teacher creative thinking and instructional preparedness. The study seeks to contribute knowledge to inform leadership training, teacher development, and policy implementation to improve educational outcomes. The study seeks to achieve the following specific objectives:

1. To investigate how participatory leadership influences teachers' creative thinking within a conducive school ecosystem at the basic level of education in the Kwadaso Municipality.
2. To determine the effects of teachers' instructional preparedness and creative thinking on teaching and learning at the basic level of education in the Kwadaso Municipality.

Theoretical Foundations

Theories on Leadership

Leadership plays a critical role in organisational success, influencing employees' motivation, performance, and commitment. According to Yukl (2010), transformational leadership motivates followers to embrace organisational goals through inspiration and influence. Besides, Graen and Uhl-Bien's (1995) Leader–Member Exchange (LMX) Theory emphasises that leaders develop different-quality relationships with subordinates: high-quality exchanges, marked by trust and open communication, lead to greater motivation and job satisfaction, while low-quality exchanges result in limited involvement. Participatory leadership theory emphasises shared decision-making, collaboration, and valuing subordinates' input. In this approach, leaders empower followers by encouraging creativity, dialogue, and shared responsibility in solving organisational challenges. On top of that, House's (1971) Path–Goal Theory further explains leadership as guiding followers toward goal achievement by clarifying tasks, removing obstacles, and offering appropriate support and rewards. Leaders may adopt directive, supportive, participative, or achievement-oriented styles depending on followers' needs. Collectively, these theories emphasise leadership as an interactive, motivational, and empowering process.

Table 1: Summary of Leadership Theories

Theory	Core Focus	Definition in Simple Terms
LMX / Exchange Theory	Relationship quality between the leader and followers	Leadership depends on the strength of leader-member relationships.
Participatory Leadership	Shared decision-making	Leadership involves including followers in planning and decision-making.
Path-Goal Theory	Motivation and goal support	Leadership guides, supports, and motivates followers toward achieving goals.

Literature Review

Leadership is widely recognised as a central factor in the success of organisations and institutions, as it provides direction, motivation, and cohesion toward achieving organisational goals. The significance of leadership lies not in what leaders gain personally but, in their ability, to enable their organisations to fulfil their mission. Effective leaders possess a clear vision and communicate it effectively, inspiring others to act collectively for the common good (Afful-Broni, 2014). Leadership, therefore, serves as a catalyst for organisational progress by aligning individual efforts with shared objectives. Within this context, participatory leadership has emerged as a crucial approach to promoting organisational effectiveness, involving the sharing and delegation of decision-making power, allowing subordinates to contribute their ideas and perspectives. This contrasts with empowered leadership, which emphasises autonomy in task execution and decision-making but with a focus on self-motivation (Wang et al., 2022; Amundsen & Martinsen, 2014). Participatory leadership, often termed democratic leadership, actively integrates employees into the decision-making process, fostering a sense of ownership and aligning personal goals with organisational objectives (Jing et al., 2017).

In addition, a defining characteristic of participatory leadership is its reliance on employee feedback, ideas, and active engagement in organisational processes. This leadership style demands an inclusive mindset, strong communication skills, and a willingness to share

authority. Leaders practising this style delegate responsibilities and provide constructive feedback that encourages professional growth, development, and accountability (Hawley, 2024). Transparency is another key feature, as it ensures that all team members understand their roles within the larger organisational framework, promoting alignment and coherence in achieving objectives. Furthermore, it is particularly recognised for its team-oriented nature by fostering collaboration, valuing team input, and encouraging open dialogue. It also strengthens trust, engagement, and shared responsibility among employees (Gomez, 2023). This inclusive approach not only enhances decision quality but also improves morale, satisfaction, and commitment within teams. Employees who feel heard and included are more likely to be motivated, proactive, and invested in the success of the organisation, and this serves as a critical mechanism for integrating individual contributions with organisational goals. By combining shared decision-making, transparent communication, and empowerment, it fosters a collaborative environment that promotes professional growth, engagement, and collective accountability, ultimately driving organisational success.

Critical Thinking Skills

Critical thinking is a fundamental skill for both teachers and students, enabling them to identify, analyse, and evaluate problems while generating effective solutions. It is essential for improving students' cognitive abilities, proficiency, and overall academic performance (Widana, 2018). At its core, critical thinking involves applying intellectual values such as relevance, accuracy, logical reasoning, and careful evaluation (Carlson, 2013; Dahl, Peltier & Schisbowsky, 2018). Beyond merely following logical rules or involves the practical application of reasoning in diverse contexts, enabling teachers and learners to approach problems meaningfully and effectively (Noviyanti et al., 2019; Karakoç, 2016).

Likewise, research emphasises the importance of nurturing critical thinking to enhance educational outcomes. Various studies have demonstrated the effectiveness of interventions aimed at developing critical thinking skills, showing positive impacts on students' problem-solving abilities, analytical reasoning, and independent thinking (Bustami et al., 2019). The development of critical thinking encompasses several key aspects, including asking pertinent questions, clearly defining problems, investigating assumptions, synthesising information, drawing conclusions, and making reasoned arguments (Espey, 2017). These skills enable students to approach challenges with a systematic and reflective mindset, fostering open-mindedness, creativity, effective communication, and confidence in presenting new perspectives (Ristanto et al., 2020; Tofade, Elsner, & Haines, 2013).

The absence of critical thinking skills can hinder students' competitiveness in a globalised world, limiting their ability to navigate complex work environments and adapt to emerging societal and professional demands (Trilling & Fadel, 2009; Permana et al., 2019). Teachers who possess and model critical thinking skills play a vital role in cultivating these abilities in students, guiding them to think independently, reason logically, and solve problems efficiently. By encouraging inquiry, analysis, and reflection, teachers help learners develop the capacity to evaluate information critically, make informed decisions, and approach learning with an active and engaged mindset (Karakoç, 2016). Primarily, critical thinking is not only a cognitive skill but also a practical tool for effective teaching and learning. For teachers, it is integral to instructional planning, problem-solving, and classroom management, while for students, it forms the basis for intellectual growth, creativity, and lifelong learning. Empowering both teachers and learners with critical thinking skills enhances academic performance, prepares them for real-world challenges, and ensures competitiveness in increasingly complex educational and professional contexts (Karakoç, 2016).

Creative Thinking

Teachers' creative thinking is essential for equipping students with the skills to seek knowledge independently and adapt to the demands of modern life (Alquatahni, 2016; Amabile, 2012). Creativity is not solely an individual trait but a systemic interaction between learners and their sociocultural environment, requiring recognition and support at both individual and collective levels (Glaveanu et al., 2019). A creative teacher can develop innovative solutions, respond effectively to students' diverse needs, and apply non-standard approaches in professional practice. However, professional education and teaching conditions often fail to sufficiently support the development of creative thinking in future teachers (Adams, 2019; Gerasimova et al., 2018; Grewal et al., 2019; Leonteva et al., 2018).

What's more, the theoretical frameworks highlight key components of creative thinking. Guilford (1965) identifies six abilities that form the foundation of creative thought: problem identification, generation of multiple ideas, rapid production of alternatives, creation of non-standard solutions, enhancement of objects through detail, and the ability to recognise novel applications. And to add up, Torrance (1979) emphasises criteria for assessing creativity, including fluency, flexibility, originality, development, resistance to closure, and abstract thinking.

Besides, Clarin (1998) notes that creative thinking involves producing original ideas or combining concepts to achieve specific goals, reflecting both internal and external forms of creative activity. Creative thinking in teachers is fostered through active engagement in professional and educational activities that require innovation. Approaches such as creative-oriented learning and experiential involvement in problem-solving tasks enhance the ability to think divergently, generate novel ideas, and apply solutions in practical contexts (Bozhkova et al., 2019). By fostering creative thinking among teachers, educational systems can prepare educators capable of inspiring innovation and adaptability in students, ensuring they are well-equipped to meet contemporary societal and professional challenges.

Instructional Preparedness

Teacher instructional preparedness encompasses activities related to a teacher's planning, resourcefulness, and effective lesson delivery. High-quality instruction depends on comprehensive pre-service and in-service teacher education programs that equip educators with the skills needed to support students' academic success and lifelong learning (Koech & Mwei, 2020). Lesson planning is also a critical aspect of instructional preparedness. Plus, Gerges (2022) says, effective planning involves anticipating classroom activities, visualising the lesson, and preparing materials and strategies in advance to handle potential challenges. Well-prepared teachers create conducive learning environments that facilitate student engagement and maximise learning outcomes. Planning includes selecting appropriate teaching materials, designing activities, identifying key learning points, setting lesson objectives, and determining how students will acquire necessary knowledge and skills.

In language instruction, for example, teachers consider multiple modes of communication-verbal, written, gestural, and body language-and plan activities to develop listening, speaking, reading, and writing skills. Effective instructional preparedness ensures that teachers can deliver lessons confidently, respond to classroom dynamics, and optimise student learning experiences.

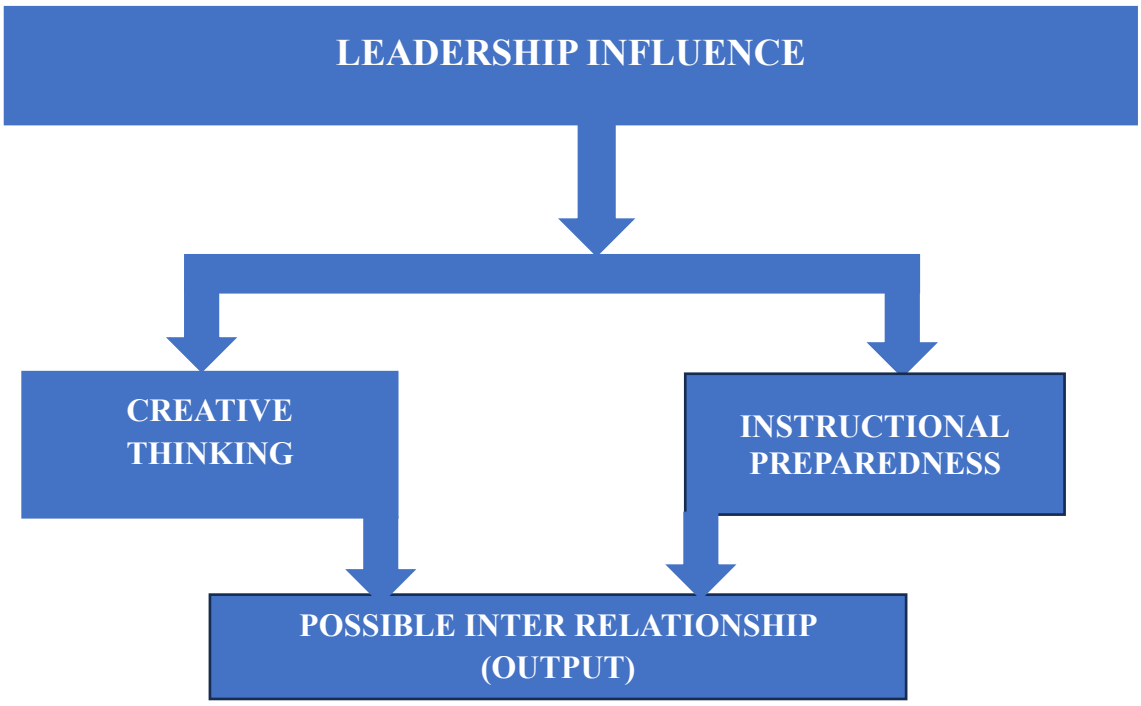

Figure 1: Conceptual Framework

Methodology

Research approach

A research approach defines the techniques and procedures for collecting and analysing data to address a research problem. It guides the overall strategy, with quantitative, qualitative, and mixed methods selected based on the study's purpose and nature (Budert-Waltz & Moffitt, 2023; Creswell & Creswell, 2017). Research studies employ various approaches tailored to the nature of the problem, including explanatory, descriptive, comparative, constructive, action-oriented, and exploratory methods. For this study, a mixed-methods approach was employed. Mixed-methods research integrates quantitative and qualitative approaches to achieve a comprehensive understanding of a research problem (Budert-Waltz & Moffitt, 2023; Collis & Hussey, 2013). This study used a sequential explanatory design, collecting and analysing quantitative data first, followed by qualitative data to interpret and elaborate on the results. Combining both methods enhances validity and reliability, providing deeper insights into how participatory leadership influences teacher creativity and instructional preparedness in basic schools.

Research design and population

A research design is a structured plan that outlines the strategy, methods, and procedures for investigating a phenomenon to answer research questions and control variability (Kerlinger, 2022). It also provides a systematic framework for collecting, analysing, and interpreting data to gain insights and understanding (Johnson & Christensen, 2012; Saunders et al., 2009; Ritchie et al., 2013). In this study, the research design guided the investigation of participatory leadership and its impact on teacher creative thinking and instructional preparedness at the basic education level in the Kwadaso Municipality. It informed the selection of appropriate data collection methods, sampling strategies, and analytical techniques, ensuring that findings

are valid, reliable, and meaningful. A sequential explanatory mixed-methods design was employed in this study. This design enables qualitative findings to elaborate on quantitative outcomes, offering a comprehensive understanding of the research problem. In the context of the Kwadaso Municipal Assembly, this design facilitated the examination of the impact of participatory leadership on teacher creative thinking and instructional preparedness in basic education. A population is the larger group from which research findings are generalised, consisting of individuals with shared characteristics (Johnson & Christensen, 2012; Kusi, 2012). For this study, the population included 46 headteachers and 721 teachers from junior high schools in the Kwadaso Municipality.

Table 2: Headteachers and Teachers of Kwadaso Municipal Assembly

Categories	Number
JHS Headteachers	46
JHS Teachers	721
Total	**767**

Source: EMIS Data (2024).

Sample and sample size

A population consists of individuals sharing common characteristics from which research findings can be generalised (Johnson & Christensen, 2012; Kusi, 2012). In this study, the population comprised 767 individuals, including 46 headteachers and 721 teachers from public basic schools within the Kwadaso Municipality. The sample size was 297 participants using the Krejcie and Morgan (1970) sampling size determination table. The study aimed to investigate how participatory leadership influences teacher creative thinking, instructional preparedness, and overall teaching and learning effectiveness at the basic education level, highlighting the critical role of school leadership in shaping teacher performance and student outcomes.

Sampling techniques

The study employed two main sampling techniques: simple random sampling and purposive sampling. Simple random sampling was used to select teachers and headteachers for the questionnaires, ensuring every member of the population had an equal chance of selection. This minimised bias and enhanced the representativeness and statistical reliability of the sample (Johnson & Christensen, 2012). Purposive sampling was used to select participants for the open-ended questions. This technique involves intentionally selecting individuals with specific characteristics or relevant experience (Creswell, 2008; Kusi, 2012). Participants were selected for their leadership roles and ability to provide informed insights. This approach enabled the collection of detailed, contextually rich information on how participatory leadership affects teacher creativity and instructional preparedness.

Research instruments

The instruments used for data collection in this study were a questionnaire and open-ended items. The items were employed to collect quantitative and qualitative data, enabling respondents to express opinions freely, though the scope of responses is often guided by the structure of the questions, thereby helping researchers gather relevant information (Kusi, 2012; Johnson & Christensen, 2012; O'Leary, 2005). In total, two hundred and sixty-one (261) teachers responded to the questionnaire, providing data for statistical analysis and interpretation, and eighteen (18) headteachers answered the open-ended items.

Sources of data

The study utilised both primary and secondary data sources. Primary data were collected directly from headteachers and teachers using questionnaires and open-ended items. Secondary data, including journals, books, and online materials, provided additional insights on leadership, teacher creativity, instructional preparedness, and educational research, enhancing the study's credibility and reliability (Johnson & Christensen, 2012).

Piloting the instruments

Piloting ensures that research instruments are clear, effective, and reliable before full deployment (Kusi, 2012). The pilot study, conducted in the Kumasi Metropolis and Asokore-Mampong Municipality, covered schools such as Danyame, Patasi, Kwadaso Estate, and Ghana Muslim Mission. Feedback on ambiguities and weaknesses informed revisions, and expert supervision enhanced the instruments' validity.

Table 3: Number of Headteachers and Teachers

Schools	Headteacher(s)	Teachers	Total
State Exp. Basic 1	1	7	8
Patasi Municipal Assembly Experimental Junior High School	2	8	10
Patasi Primary School	1	3	4
Ghana Muslim Mission	2	10	12
Total	**6**	**28**	**34**

Validity, reliability, and credibility

Validity concerns the truthfulness of research inferences, while reliability concerns the consistency of results (Johnson & Christensen, 2012). Again, using trustworthiness criteria, credibility, transferability, dependability, and confirmability were ensured through expert reviews, piloting, and triangulation of questionnaires and open-ended questions (Kusi, 2012).

Table 4: Reliability Test (Cronbach's Alpha After refinement)

Dimension	Items	Alpa Value	Average Covariance
Creative Thinking	13	0.7764	.1351
Participative Leadership & Creative Thinking	13	0.8294	.1254
Teacher Instructional Preparedness	6	0.6646	.1154

Researcher's bias

To minimise bias in the research, a triangulation approach was employed, drawing on multiple data sources (Kusi, 2012). This method enhanced the validity of the findings by cross-verifying information from different perspectives, thereby ensuring a more comprehensive and balanced understanding of the subject matter. By integrating diverse data sources, potential inaccuracies or biases inherent in any single source could be mitigated, leading to more reliable and robust conclusions.

Incompleteness and misinterpretation

To ensure the accuracy of the data collected, meticulous attention was paid to the responses. A thorough validation process was implemented to identify and mitigate any potential bias or inaccuracies, as highlighted by Kusi (2012). This involved cross-referencing the data with reliable sources and employing various methodologies to ensure the information accurately represented the subject matter. Such diligence was essential in maintaining the integrity and reliability of the findings.

Methods of data collection

Data collection is a critical process that entails gathering information necessary for subsequent analysis (Johnson & Christensen, 2012). In this particular study, we employed a combination of structured questionnaires and open-ended items to capture a comprehensive range of responses. The design prioritised personal engagement with participants while maintaining neutrality to ensure the data accurately reflected their views and experiences. Moreover, mindfulness was a key component of our approach, as we fostered a comfortable, open environment for communication. This was especially important in school settings, where we aimed to enhance accessibility and ensure that the qualitative data collection process proceeded smoothly and effectively.

Data processing and analysis

The quantitative data collected for the study were systematically analysed using SPSS (Statistical Package for the Social Sciences). This statistical software was used to conduct various analyses, including descriptive and inferential statistics, as well as potentially advanced techniques depending on the research questions posed. In addition to the quantitative analysis, the responses to the open-ended questions were examined using thematic analysis. This involved coding the data for recurring themes and patterns to gain deeper insights into participants' perspectives. To facilitate this analysis, Atlas.ti software was utilised, enabling a structured approach to organising and interpreting the qualitative data effectively. Through this combination of quantitative and qualitative methods, we aimed to provide a comprehensive understanding of the research topic.

Ethical consideration

Ethical clearance was obtained from the University of Skills Training and Entrepreneurial Development, ensuring participants' confidentiality, voluntary participation, and proper permissions from authorities. Data security and plagiarism prevention were strictly maintained in accordance with established ethical guidelines (Creswell & Creswell, 2017; Kusi, 2012).

Results

From the population of 767, the sample size for the study was 297. Eighteen headteachers participated in open-ended sessions. Teachers' questionnaires contained 44 items plus one open-ended question, while headteachers' questionnaires contained twenty-five (25) items and seven (7) open-ended questions, as detailed below:

Demographic Data of Headteachers

The majority of headteachers were male (55.6%) and aged 41–50 years (44.4%). Over half held a bachelor's degree (55.6%), and those with 21–30 years of teaching experience accounted for 44.4%. Additionally, 55.6% attended four or more professional learning courses, reflecting a strong commitment to professional development.

Demographic Characteristics of Teachers

Most teachers were female (59.9%) and aged 31–40 years (40.4%). The majority held a bachelor's degree (79.8%), and over half (51.4%) had up to 10 years' teaching experience, indicating a relatively young and qualified teaching workforce.

Table 5: Headteacher Participatory Leadership Influence

Statement	Mean	SD
Plan and facilitate lessons with colleagues according to objectives	4.15	.928
Motivate learning in a conducive environment	4.15	.970
Innovate solutions to real-life problems with other colleagues	4.01	.984
Take part in planning for effective lesson delivery	4.23	.995
Work with teams to influence teaching and learning	4.15	.928
Join forces with PLC to improve upon teaching and learning processes	4.23	.889
Deliver lessons systematically with others	4.11	.970
Influence students' learning through school-based CPD	4.06	.968
Assist learners through collaborative discussions with colleagues.	4.10	.966
Promote and share knowledge among learners	4.18	.960
Discover new ways and materials with learners	4.15	.926
Plan lesson forecasts with the department.	4.13	.980
Bring about higher learning results through challenging ideas	4.05	.915
Overall Mean	**4.131**	**.708**

Table 5 shows that headteachers in basic schools exhibit high levels of participative leadership (M = 4.13, SD = 0.71), thereby promoting teacher collaboration and creative thinking. Teachers actively engage in lesson planning (M = 4.15), teamwork (M = 4.15), and Professional Learning Communities (M = 4.23), enhancing instructional processes. Participation in real-life problem-solving (M = 4.01) and school-based CPDs (M = 4.06) further reflects shared leadership, fostering professional growth, creative problem-solving, and improved teaching and learning outcomes.

Table 6: Teacher Instructional Preparedness

Statement	Mean	SD
Resource before classroom teaching	4.23	1.004
Search for relevant information to improve teaching and learning	4.26	.980
Implement alternative strategies to improve teaching and learning	4.14	.954
Plan, forecast and execute for exemplary performance in the classroom	4.10	.944
Help students find the best solution to the problem(s)	4.14	1.019
Deliver lessons timely and accurately with discipline	4.17	1.036
Overall Mean	**4.212**	**.936**

Table 6 shows that teachers in the Kwadaso Municipality exhibit high instructional preparedness and creative thinking (M = 4.21, SD = 0.94). They are resourceful before lessons (M = 4.23), seek relevant information (M = 4.26), implement alternative strategies (M = 4.14), plan effectively (M = 4.10), assist with problem-solving (M = 4.14), and deliver lessons punctually (M = 4.17). These practices enhance teaching quality, learner engagement, and classroom effectiveness.

Table 7: Multiple Regression

	Coef.	Std. Err.	T	P>t	[95%Conf.	Interval]
Creative thinking						
Participatory leadership	0.825	0.038	21.570	0.000	0.750	0.900
_Constant	0.744	0.160	4.640	0.000	0.428	1.059
Teacher instructional						
Participatory leadership	0.926	0.056	16.430	0.000	0.815	1.037
_Constant	0.388	0.236	1.640	0.102	-0.077	0.852

Table 7 shows strong positive correlations between participative leadership, teacher creative thinking, and instructional preparedness. Participative leadership is highly associated with creative thinking ($r = 0.825$, $p < 0.001$) and instructional practices ($r = 0.926$, $p < 0.001$), indicating that collaborative leadership fosters teacher innovation, effective lesson delivery, and overall teaching excellence at the basic education level.

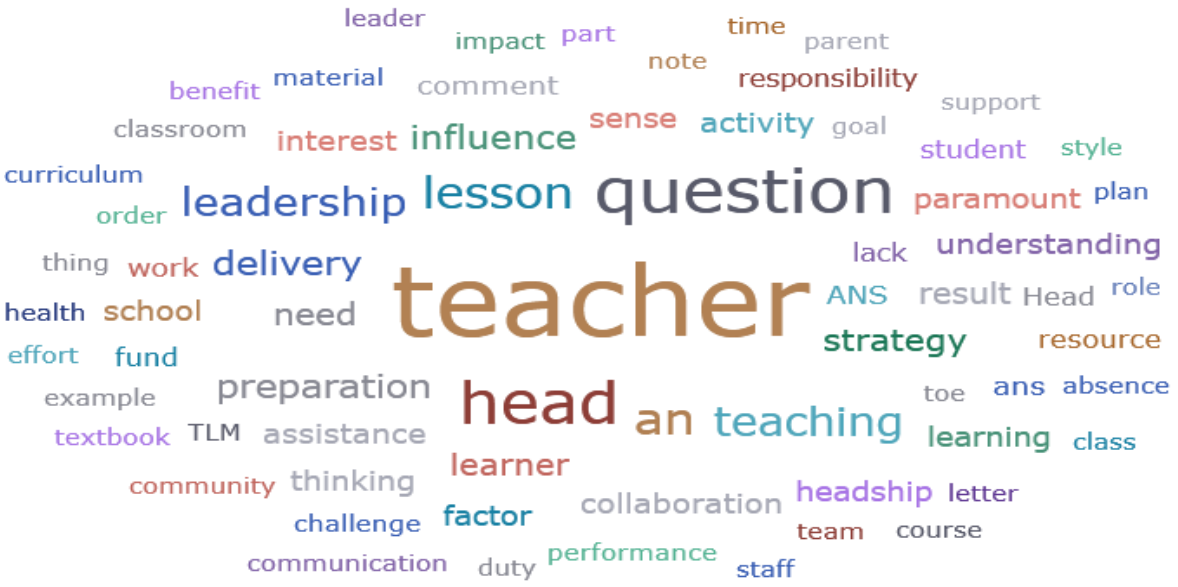

Figure. 2: A Word Cloud on Headteachers Strategies

Table 8: Summary of Emerging Themes and Subthemes

Theme	Sub-themes	Frequency	Example of Quotation
Leadership Challenges	Inadequate resources	9	"Some of the challenges include inadequate funds, teachers' attitude towards their work, lack of support from parents"
	Lack of funding	15	"Managing the schools without resources/funds."
	Lack of support from stakeholders	4	"Factors such as inadequate resources, lack of cooperation by all stakeholders, and improper funding are challenges to headship."
	Teachers' poor attitude towards work	7	"Discipline on the part of some teachers."
	Staff recruitment and retention	2	"Financial constraints, staff recruitment and retention, student performance, and accountability."
	Student indiscipline	1	"Indiscipline on the part of some teachers and students."
Leadership Strategies	Open administration and collaboration	14	"Collaboration with stakeholders, open administration (fair and firm), collaboration with NGOs."
	Mentoring and motivation	4	"Motivation, introducing coaching, providing support to help teachers improve their instructional practices."

Theme	Sub-themes	Frequency	Example of Quotation
Influence of Leadership on Teachership	Provision of resources and funding	7	**"**Increasing the assistance given to public schools; the government and NGOs are to support basic schools massively."
	Learning opportunity for head teachers	2	"Transparent leaders provide learning opportunities for teachers and develop their leadership mindset by delegating responsibilities."
	Training and workshops for head teachers	2	"Regular leadership training and seminars."
	Enhances allocation of teaching resources	5	"Head teachers must provide necessary materials for teachers and also equip them when necessary."
	Effective supervision improves teacher preparation and delivery	6	"The head teacher should see to it that teachers prepare their lessons based on the curriculum and deliver what they have prepared."
	Improves teachers' sense of belonging	2	"Because teachers are involved in decision-making, they work harder, feel their work is noticed, and therefore do their best in teaching and learning."

Discussion

Headteachers' Participatory Leadership Influence

Table 5 shows that headteacher participation positively influences teacher creative thinking (overall M = 4.13, SD = .708). Collaborative lesson planning, professional learning communities (PLCs), and teamwork between headteachers and teachers enhance innovation, problem-solving, and instructional preparedness. This aligns with Leader-Member Exchange and Participatory Leadership Theories, which emphasise shared decision-making and empowerment (Sheikh & Rana, 2021; Wang et al., 2022). Participative leadership enhances teacher motivation, commitment, and creativity, fostering a supportive environment for professional growth. Collaborative engagement among teachers improves pedagogical competence, performance, and learner outcomes, with effective leadership driving institutional success through collective vision, teamwork, and the promotion of teaching excellence (Afful-Broni, 2014).

Teacher Teaching Variables and their Impact

Teacher instructional preparedness and creative thinking strongly enhance teaching effectiveness (M = 4.21, SD = 0.94, see Table 6). Resourceful planning, the use of relevant materials, and adaptive strategies improve learner engagement, problem-solving, and lesson delivery, supporting Koech and Mwei (2020) and Gerges (2022) in emphasising the importance of preparedness for quality instruction. Open-ended responses revealed that ineffective headship and teaching in Kwadaso Municipality stem from inadequate resources, poor infrastructure, limited stakeholder support, heavy workloads, student indiscipline, and lack of

professional development. Low teacher involvement, poor supervision, and weak collaboration further hinder motivation, creativity, and instructional preparedness, highlighting the need for participatory leadership and supportive school ecosystems.

In effect, participatory leadership plays a vital role in enhancing teachers' teaching variables (creative thinking and instructional preparedness) for desirable work outcomes at the basic level of education in the Kwadaso Municipality. This aligns with Graen and Uhl-Bien (1995), who explain that leadership is the process of developing differentiated relationships with followers, in which the quality of leader-member exchange determines employee motivation, performance, and job satisfaction. By involving teachers in decision-making, planning, fostering collaboration, and promoting shared responsibility, headteachers create a supportive environment that stimulates innovation, reflective practice, and effective lesson delivery. Such leadership not only strengthens teachers' creative thinking, motivation, and professional growth but also improves overall work output within the municipality.

Recommendations

It is recommended that headteachers adopt and strengthen participatory leadership practices that actively involve teachers in decision-making, planning, and problem-solving. This enhances teacher motivation, commitment, and creativity, fostering a supportive environment for professional growth. Regular training and professional development programs should be organised to enhance teachers' creative thinking and instructional preparedness. Additionally, education authorities should provide adequate resources and supportive environments that encourage collaboration, innovation, and continuous improvement in teaching and learning at the basic level. There should be resourceful planning, use of relevant materials, and adaptive strategies to improve learner engagement, problem-solving, and lesson delivery.

Authors' Declarations and Contributions

The authors, John Opoku, Rev. Prof Alexander Kyei Edwards, and Rev. Fr. Dr Francis Kwame Sam, conceived and designed the study, analysed and interpreted the data, drafted the manuscript, and reviewed, edited, and approved the final manuscript for submission.
The authors' roles include: conceptualisation, data collection, data analysis, literature review, writing the original draft and reviewing and editing the manuscript.

Availability of Data and Materials

The datasets used and/or analysed during this study were available from the corresponding author on reasonable request.

References

Adams, B. (2019). The far-reaching impact of a transformative curriculum. *Journal of Curriculum Studies Research, 1*(1), 17-32.

Afful-Broni, A. (2004). *Theory and practice of educational leadership in Ghana*. Accra, Ghana: Yamens Press.

Amabile, T. M., & Pillemer, J. (2012). Perspectives on social psychology. *The Journal of Creative Behaviour, 46*(1), 3-15.

Amundsen, S., & Martinsen, L. (2014). Empowering leadership: Construct clarification, conceptualisation, and validation of a new scale. *Leadership, 25*, 487-511.

Bohan-Jacquot, S. (2015). *Standards and guidelines for the practice of inclusion education in Ghana*. Art Excel Ghana.

Bozhkova, G. N., Shastina, E. M., Kalimullina, O. V., & Shatunova, O. V. (2019). Study of literary images of gifted characters in optional activities as a means to develop capable and talented youth. *Space and Culture, India, 7*(1), 264-273.

Bush, T., & Jackson, D. (2002). A preparation for school leadership: International perspectives. *Educational Management and Administration, 30*(4), 417-429.

Bustami, Y., Riyati, Y., & Julung, H. (2019). Think, talk, write with pictured cards on the human digestive system: Impact of critical thinking skills. *Biosfer: Jurnal Pendidikan Biologi, 12*(1), 13-23.

Carlson, S. C. (2013). Instructional methods influence critical thinking: Do students and instructors agree? *Academy of Educational Leadership Journal, 17*(1), 27-32.

Collis, J., & Hussey, R. (2013). *Business research: A guide for undergraduate and postgraduate students*. Macmillan: International Higher Education.

Clarin, M. V. (1998). *Innovations in world pedagogy: Learning based on research, games and discussion*. Riga, Latvia.

Creswell, J. W. (2008). *Educational research: Planning, conducting and evaluating quantitative and qualitative research* (3rd ed.). Pearson Education.

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approach* (5th ed.). Sage Publications.

Dahl, A. J., Peltier, J. W., & Schibrowsky, J. A. (2018). Critical thinking and reflective learning in the marketing education literature: A historical perspective and future research needs. *Journal of Marketing Education, 40*(2), 101-116.

Educational Management Information System (EMIS, 2023). *Data on number of headteachers and teachers in Kwadaso Municipal Assembly, Kumasi*. Accra: GES.

Esenyel, V. (2024). Evolving leadership theories: Integrating contemporary theories for VUCA realities. *Administrative Sciences, 14*(11), 270.

Espey, M. (2017). Enhancing critical thinking using team-based learning. *Higher Education Research & Development, 37*(1), 15-29.

Gerasimova, V. G., Romanova, Y. D., & Zhenova, N. A. (2018). Russian market of LMS for higher education. *Astra Salvensis*, *6,* 757-767.

Gerges, S. N. N. (2022). *Lesson preparation and planning*. Retrieved from https://www.researchgate.net

Germuth, A.A. (2012). *Teacher leadership survey report, empowering teacher leaders: The impact of graduate programs connecting mind, brain and education research to teacher leadership.* NOVA South Eastern University (NSU), Brain Smart.

Ghana Education Service (GES). (2001). *School management committee (SMC)/Parent Teacher Association (PTA) handbook: Improving quality education through community participation*. Accra: Ministry of Education.

Ghana Education Service (2010a). *Headteachers' handbook* (2nd ed.). Accra: Ministry of Education.
Ghana Education Service (2010b). *School management committee resource handbook* (2nd ed.). Accra: Ministry of Education.
Glaveanu, V. P., Hanson, M. H., Baer, J., Barbot, B., Clapp, E., Corazza, G. E., Lubart, T. (2019). Advancing creativity theory and research: A socio-cultural manifesto. *Journal of Creative Behaviour, 54*, 741-745.
Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory over 25 years. *The Leadership Quarterly, 6*(2), 219-247.
Grewal, I., Maher, A., Watters, H., Clemens, D., & Webb, K. (2019). Rewriting teacher education: Food, love, and community. *Journal of Culture and Values in Education, 2*(3), 44-60.
Guilford, J. (1965). Three sides of intelligence. *Psychology of Thinking, 1*, 124-145.
Harrington, D. (2011). Creative environments, conditions, and settings. In Runco, & Pritzker (Eds.), *Encyclopedia of creativity* (2, pp. 264–272). Elsevier.
House, R. J. (1971). A path-goal theory of leader effectiveness. *Administrative Science Quarterly, 16*(3), 321-339.
Jing, Z., Jianshi, G., Jinlian, L., & Yao, T. (2017). A case study of the promoting strategies for innovation. *Science Research Management,* 385-365.
Johnson, B., & Christensen, L. (2012). *Educational research: Quantitative, qualitative and mixed approaches* (4th ed.). Sage Publications.
Kabukcu, E. (2015). Creativity process in innovation-oriented entrepreneurship: The case of Vakko Evrim Kabukcu. *Procedia - Social and Behavioural Sciences, 195*, 1321-1329.
Karakoç, M. (2016). The significance of critical thinking ability in terms of education. *International Journal of Humanities and Social Science, 6*(7), 81-84.
Kerlinger, F. N. (2022). *Research design: Definition, features, types, process, and importance*. Retrieved from https://www.toppers4u.com/research
Koech, H. C., & Mwei, P. K. (2020). Teachers' perception of the relevance, adequacy and confidence in their preservice content and pedagogical knowledge in the teaching of secondary school mathematics. *IOSR Journal of Research & Method in Education, 10*(4), 13-26.
Kouzes, J. M. & Posner, B. Z. (2012). *The leadership challenge: How to make extraordinary things happen in organisations* (5th ed.). Jossey-Bass.
Kusi, H. (2012). *Doing qualitative research: A guide for researchers*. Accra, Ghana: Emmpong Press.
Kayiwa, B. (2011). *Assessment of leadership training of head teachers and secondary school performance in Mubende District, Uganda*. Unpublished master's thesis, Bugema University.
Lalor, J. G., Casey, D., Elliot, N., Coyne, E., Comisley, C., Higgins, A., Begley, C. (2013). Using case study within a sequential explanatory design to evaluate the impact of specialist and advanced practice roles on clinical outcomes: The SCAPE study. *BMC Medical Research Methodology, 13*, 55-70.
Mulford, B. (2003). *Challenging roles and impact on teacher and school effectiveness*. OECD Commissioned Paper.
Nthenya, M. S. (2012). *Challenges faced by secondary school head teachers in leadership and management of human resources in Nzaui District, Makueni County, Kenya.* Unpublished master's thesis, Kenyatta University.
O'Leary, Z. (2005). *Researching real-world problems: A guide to methods of inquiry.* Sage Publications.

Permana, T. I., Hindun, I., Rofi'ah, N. L., & Azizah, A. S. N. (2019). Critical thinking skills: Its correlation with academic ability, mastering concepts, and analytical skills of undergraduate students in botany class. *Jurnal Pendidikan Biologi Indonesia, 5*(1), 1-8.
Report of the President's Committee on Review of Education Reforms in Ghana (2002). *Meeting the challenges of education in the twenty-first century.* Accra: Adwinsa Publications.
Richardson, C., & Mishra, P. (2017). Learning environments that support student creativity: Developing the scale. *Thinking Skills and Creativity, 27*, 45-54.
Ristanto, R. H., Djamahar, R., Heryanti, E., & Ichsan, I. Z. (2020). Enhancing students' biology critical thinking skills through the cooperative integrated reading and composition based on a scientific approach. *Journal for the Education of Gifted Young Scientists, 8*(4), 1305-1318.
Ritchie, J., Lewis, J., Nicholls, C. M., & Ormston, R. (2013). *Qualitative research practice: A guide for social science students and researchers.* London: Sage Publications.
Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (5th ed.). New York: Prentice Hall.
Sheikh, I., & Rana, R. A. (2021). *Development of a scale to measure teachers' creativity*. Retrieved from http://doi.org/10.47205/jdss.2021
Suaka, L. P., & Kuranchie, A. (2018). Head teachers' professional management needs and concerns: Evidence from an educational district in Ghana. *European Journal of Training and Development Studies, 5*(2), 33-47.
Tofade, T., Elsner, J., & Haines, S. T. (2013). Best practice strategies for effective use of questions as a teaching tool. *American Journal of Pharmaceutical Education, 77*(7), 1-9.
Torrance, P. (1979). *The search for satori and creativity.* Buffalo, NY: Creative Education Foundation.
Trilling, B., & Fadel, C. (2009). *21st century skills: Learning for life in our times.* Jossey-Bass.
U-Sayee, C. R., & Adomako, E. B. (2021). *Supervisory practices and challenges faced by senior high school principals in Greater Monrovia, Liberia: Implications for quality education.* Retrieved from https://doi.org/10./016/j.hehyon.2021.e06895
Wang, Q., Hou, H., & Li, Z. (2022). Participative leadership: A literature review and prospects for future research. *Frontiers in Psychology, 13,* 92-109.
Widana, I. W., Parwata, I. M. Y., Parmithi, N. N., Jayantika, I. G. A. T., Sukendra, K., & Sumandya, I. W. (2018). Higher-order thinking skills assessment towards critical thinking on mathematics lessons. *International Journal of Social Sciences and Humanities, 2*(1), 24-32.
Yukl, G. A. (2010). *Leadership in organisations, global edition.* New York: Pearson Education, Inc.
Zamana, F. (2021). Creative ecosystem framework: World creativity day. *Iberoamerican Journal of Creativity and Innovation, 2*, 134-150.