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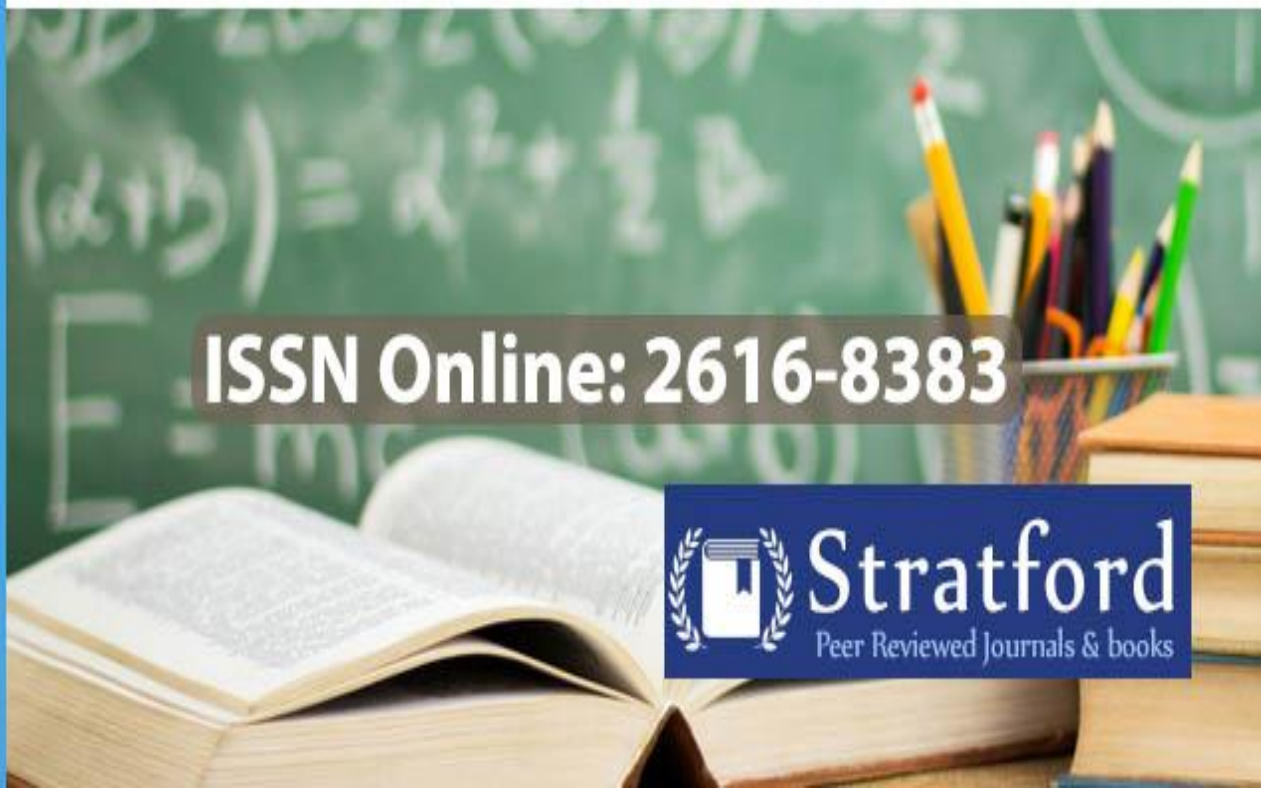

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Influence of Nurturing Creativity in Education on Student's Academic Performance in Selected Private Nursery and Primary Schools in Rwanda: A Case of Rubavu District

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Abstract

The study aimed to investigate the impact of nurturing creativity in education on the academic performance of students in selected private nursery and primary schools in Rwanda. The specific objectives include determining the factors influencing nurturing creativity, analyzing the correlation between nurturing creativity and academic performance, and assessing the relationship between the two variables. Employing a descriptive research design, the study targeted 102 nursery teachers, 100 primary teachers, and 101 headteachers in Rubavu District. The sample size of 172 respondents was determined using Taro Yamane's formula. Data was collected through questionnaires and documentary research, ensuring ethical considerations. The study utilized statistical tools in SPSS for data analysis, emphasizing validity and reliability checks. The nurturing creativity that influences student's academic performance in selected private nursery and primary schools in Rwanda. The results of the first objective one identified activities influencing student performance, with strong agreement percentages: Learner's participation in innovative activity (74.7%), the learner-centered method (71.1%), improved learners' Creativity practice (76.5%), and Learning by doing (79.5%). Headteachers affirmed the positive correlation between encouraging creativity and student performance, with 74.7% agreeing that competition results reflected creativity impact. In objective two, teachers strongly agreed (70.5% to 74.7%) that learners' marks, competition results, creativity, problem-solving skills, and improved literacy competences demonstrated the impact of encouraging creativity on academic performance. Objective three revealed a statistically significant positive correlation ($p<0.05$) between nurturing creativity and academic performance. In conclusion, nurturing activities significantly influenced academic performance. Recommendations include collaboration with parents, provision of teaching materials, and training for teachers and headteachers. The findings underscore the importance of integrating nurturing activities in education to enhance student performance in Rwanda's private nursery and primary schools.

Keywords: *Nurturing Creativity, Education, Academic Performance, Private Nursery, Primary Schools, Rubavu District, Rwanda*

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1. Introduction

MINEDUC is willing to embrace new ways of thinking and working in order to become a change agent and a hub of educational innovation and creativity. This is viewed as critical to achieving broader goals, such as enhancing educational quality and, hence, student capabilities through new curricula, instructional techniques, and resources. (MINEDUC, 2017)

Innovation and imaginative thinking have grown increasingly vital for the development of the 21st century society of knowledge (Narayanan, 2017). Pre-primary and elementary education are critical for developing learners' creative and imaginative talents. As a result, teachers are required to include features of creativity and innovation in the design and delivery of their classes (implementation). Being innovative and imaginative enables us to better grasp topics. Schools produce thinkers who can utilize their own abilities to explore their own interests by using a creative, experimental way of teaching. It is critical and beneficial for young learners to understand these creative skills in order to think autonomously, independently, and creatively in the future. If you're wondering what the significance of creativity and innovation in academia is, we've got you covered (Sharna, 2023).

Rwanda replaced a knowledge-driven curriculum with a curriculum based on competencies (CBC) in 2015 (Ndihokubwayo and Habiyaremye, 2018). Rwanda switched through altering the curriculum, students can go beyond information and skill acquisition to critical thinking, invention and creativity, research and problem solving, communication, cooperation, interpersonal life skills, and lifetime learning abilities (Ngendahayo, 2016). Cross-cutting issues such as atrocity studies, environmental and environmental responsibility, sexuality and gender identity, inclusion, peace and values, information about finances, and standards and cultural instruction were used to present these capabilities (REB, 2015). Based on this context, the researcher was motivated to undertake the investigation on the impact of promoting innovation and creativity in education on students' academic performance in selected private nursery and primary schools in Rwanda. As a result, the outcomes of this study will provide all education stakeholders with more detailed information.

1.2 Objectives of the Study

1.2.1 General objective of the Study

The general objective of this study was to investigate the influence of nurturing creativity in education on student’s academic performance in selected private nursery and primary schools in Rwanda.

1.2.2 Specific Objectives

(i) To determine the nurturing creativity that influence student’s academic performance in selected private nursery and primary schools in Rwanda.

(ii) To analyse the student’s academic performance in selected private nursery and primary schools in Rwanda that is due to nurturing creativity in education

(iii) To examine the relationship between nurturing creativity in education and student’s academic performance in selected private nursery and primary schools in Rwanda.

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2.1Empirical Review

2.1.1 The nurturing creativitythat influence student's academic performance in selected private nursery and primary schools

Narayanan (2017) evaluated the impact of creativity and innovation in educational settings on learners' academic achievement in Malaysian commercial higher educational institutions establishments. Secondary data (library research), questionnaires, in-depth discussions, and observation with instructors were employed to collect data. Findings showed that creative and innovative instructional approaches made a specific idea apparent to learners. They increased learners' interest in understanding precisely the knowledge, established long-term retention of an idea, and showed a favorable relationship between creativity and innovation and academic achievement employing diverse instructional methodologies.

According to TSC TPAD guidelines (2016), creativity and innovation are two of the areas in which they are assessed on a yearly basis and form the basis for establishing how they affect the performance of learners in schools. According to Didinya et al. (2018), teacher performance assessment has a vital impact on the quality of education delivery in schools.

Osati (2019) argued that teachers need to be creative and innovative through the identification of appropriate materials that reinforce the content being learned in classrooms. This is because, at times, learning could be complex, and therefore, teachers should incorporate aspects of innovation and creativity to stimulate students thinking in the classroom. The creative and innovative aspects mainly involve the use of instructional learning resources to enhance learning in class. Commonly, teachers integrate the use of technology into classroom learning. Teachers can help learners develop a skill set that includes ideas that are generally not fostered in a traditional setting while also improving their academic performance by implementing creative teaching and learning and innovation in the curriculum (Wanjala & Osendo, 2019).

According to Frascati (2002), research is described as methodical creative work undertaken to increase the store of knowledge, encompassing knowledge regarding human beings, society, and culture, and the application of this collection of information to the development of new technologies. According to Akinwale et al. (2012), research is a systematic inquiry or search for new information based on the scientific method. They went on to say that a scientific process is a sequential event that includes observations, hypothesis formation, experimentation to test the hypothesis, outcome evaluation, and ultimately rejection, modification, or acceptance of the hypothesis. As a result, research may be defined as a careful analysis of an item, circumstance, or scenario with the goal of affecting social progress and improvement (Odia & Omofonmwan, 2013).

2.1.2 The analyse the student's academic performance in selected private nursery and primary schools

In Pakistan, Naz and Murad (2017) analysed the innovative approaches that teachers applied to respond to students' diversity in tertiary education (public and private sector). They thought that creative teaching has a favorable impact on the diversity of learners' performance. A survey research approach incorporating tertiary education teachers supervised the investigation. Findings showed that most tertiary education teachers supported the use of innovative teaching approaches. Comparatively, the private sector institutions were found to be using innovative teaching approaches more across different disciplines compared

to the public tertiary institutions. The gap created in this study is that it was conducted at the tertiary level, whereas this research focused on how creativity and innovation were used by teachers in public primary schools.

Wanjala and Osendo (2019) investigated the link between academic achievement in Kenya and classroom creativity. There were 512 teachers, 53 deputy headteachers, and 53 headteachers among those who responded. Results showed that most deputy headteachers saw creativity in instruction as à chance for instructors to prepare and use instructional materials in class as it influenced their job performance positively. On their part, the teacher argued that ICT integration was an expensive affair and was not essential in their school environment which lacked the required infrastructure to aid in digitisation. This means that teachers had different views with regard to the improvisation on locally available materials this means that despite the inadequacy of learning materials provided by the government, parents, and school management, teachers are going further to improvise the existing resources in their vicinity to develop and instructional resource tool. In addition, Naz and Murad (2017) suggested that teachers' improvisation of curriculum learning materials was a way of introducing innovation in their teaching approaches.

The Study done by Palaniappan (2009), reveared that Malaysian and American pupils were contrasted in terms of their degrees of inventiveness. He observed that American students outperform According to Olatoye, Akintunde, and Ogunsanya (2010), students in Nigeria outperformed their Malaysian equivalents in terms of creativity overall and its constituent pieces, including fluency, adaptability, creativity, or elaboration. Innovation also results from creative endeavors. Innovation is the process of producing and employing such imaginative concepts as well as transforming them into novel, useful, and viable goods, services, and business practices. Innovative thinking is the skill of developing novel concepts, methods, or activities.

According to Wu (2002), teaching innovation comes about when teachers use multifaceted and possibly methods of instruction, as well as rich and varied content, to stimulate students' inner interest in acquiring knowledge, thereby developing positive student attitudes toward forward-thinking learning and enhancing their educational ability.

2.1.3 The investigate The extent to which nurturing creativity in education influence student's academic performance in selected private nursery and primary schools

Lewis (2019) conducted research in the United Kingdom on how staff use campus spaces for peer learning, as well as the restrictions and opportunities for innovative thinking and creativity in classroom instruction. Suggests that the diverse locations accessible to university teaching staff be used more effectively to facilitate creative activity and peer learning, as expressed in four design principles. suggests that the diverse locations accessible to university teaching staff be used more effectively to facilitate creative activity and peer learning, as expressed in four design principles: Everyday settings foster innovation; gathering places entail social events; forums come in a variety of sizes; and collaborative venues require a collective culture. Normalizing a creative environment demands both behavioral and physical modifications in the use of space, indicating both of which faculty and institutions must put in together to reimagine venues enabling faculty to teach one another.

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In addition, Taiwan's Ministry of of Education issued the White Paper on Invention Education in the beginning of 2002, with the objective of creating a "country of creativity." It defined creativity's function in educational reform as an integrated effort to promote educational opportunities as the future priority of educational reform. To allow students to be creative, school must be creative and original in order to enhance students' innovative talents.

(Cheboi, 2021) conducted research on Teachers' creativity and students' educational achievement in public elementary schools from Kenya's Marakwet East Sub-County. The study discovered that instructors' application of innovative thinking and creativity strategies improved learners' academic attainment. However, the study revealed that ICT resource consumption was low, which explains why so few instructors were using and accessing internet-based materials for their pupils. This implies that, despite instructors' ability to ensure that their classroom experiences include innovation and creativity, they are impeded by a lack of suitable infrastructural amenities such as computers, laptops, internet, and energy. Finally, instructors' usage of creative and innovative teaching techniques was shown to affect learners' academic achievement at public elementary schools in Marakwet East Sub County. The government, according to the plan, should ensure that every educational institution is connected to the national grid of the cable with fiber optics and energy.

According to Tulbure (2012), successful teaching requires adaptability, imagination, and accountability in order to offer an educational environment capable of responding to the student can specific requirements (Fayombo, 2015) and obtaining strong achievement in school and educational outcomes. In addition, he noted that the majority of pupils learn best when the presenting style is connected to their preferred learning method, and it is vital for teachers to fully comprehend the needs of their pupils. As a result of this, educators may get suggestions for how they can make academic content easier to find to various collections of learners, and an improved comprehension of various methods of learning may aid educators in incorporating new knowledge in a remembered manner (Brady, 2013; mentioned by Fayombo, 2015).

Furthermore, Former US President Bill Clinton argued that "technology and scientific discovery serve as fuel, and entrepreneurship serves as power" in the knowledge-based economy (Je Lee, 2011). Creativity serves as the spark that fires innovation, and creativity education has grown into the foundation of educational prospects (Je Lee, 2011). In the simplest terms, when faced with worldwide rivalry, innovation is a definite approach to promote competitiveness, and schooling may significantly improve innovation and creative thinking (Je Lee, 2011).

2.2 Research Gap

In the study by Yawman and Kubi (2019) in Thailand, the impact of innovative teaching strategies on student performance was explored. Results indicated significant differences in performance between groups taught with innovative methods and those using conventional approaches. However, this study diverges by focusing on how instructors utilize creative techniques and their influence on the Kenya Certificate of Primary Education (KCPE) in Rwanda. The gap identified is the lack of investigation into the actual implementation of creativity in teaching and learning in schools.

Lewis Winks (2019) examined nurturing creativity and imaginative thinking in educational practice, suggesting design principles to enhance faculty peer learning. The study emphasized

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the need for physical and behavioral changes to foster an innovative culture. While valuable, this research does not directly address the impact of creativity and innovation on student performance.

In Rwanda, Milligan (2017) explored learning from innovation in education, focusing on IfE projects. The findings highlighted the importance of targeted assessments aligned with specific variables, such as language and literacy. The impact on learning outcomes, measured by test scores, was evident in programs promoting effective teaching. However, these studies did not establish a clear link between nurturing innovation, creativity in education, and student academic performance at the preprimary and primary school levels.

The existing literature underscores a gap in understanding the relationship between nurturing innovation and creativity in education and its direct influence on student academic performance in Rwandan preprimary and primary schools. To address this gap, the current study aims to investigate how nurturing innovations, creativity, and innovation in education impact the academic performance of students in selected private nursery and primary schools in Rwanda. By focusing on this specific context, the research intends to contribute valuable insights into the dynamics of creativity in teaching and its implications for student success in the Rwandan educational landscape.

2.3 Conceptual Framework

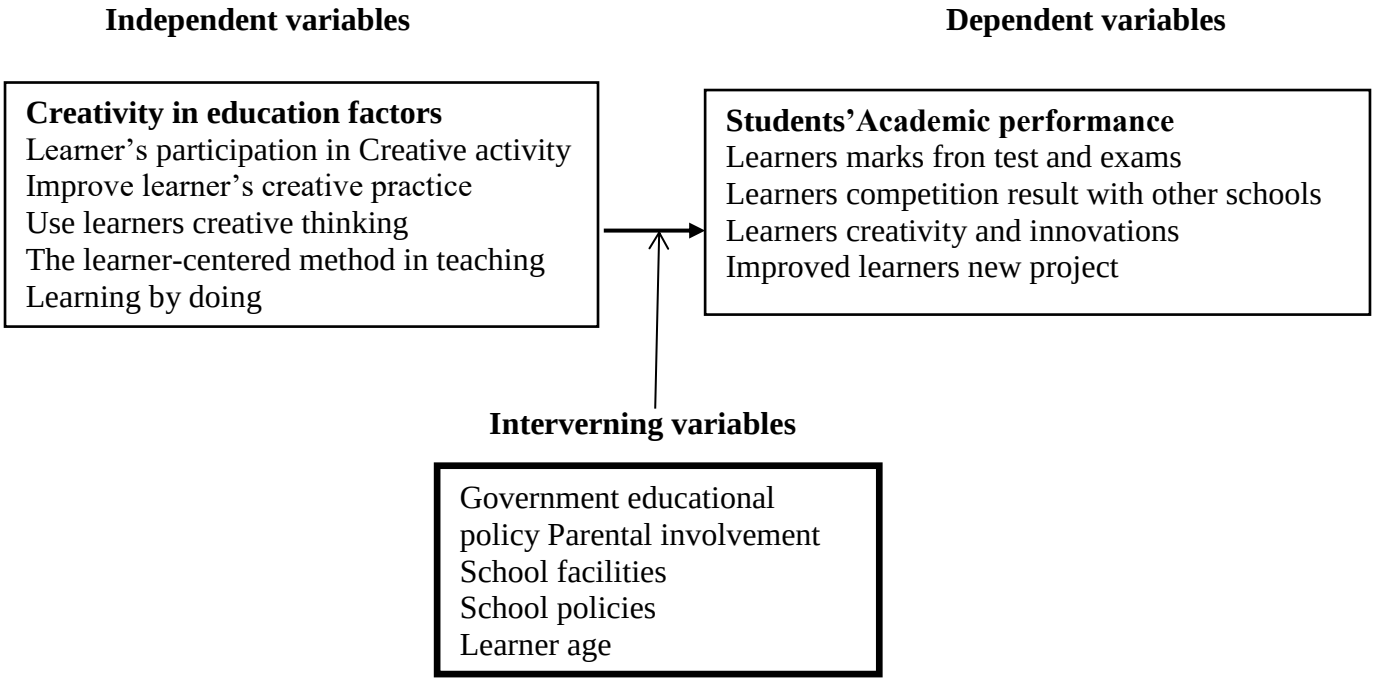

Figure 1 Conceptual Framework

Source: Researcher (2023)

The above figure summarise of the relationship between the factors in this investigation. The diagram above depicts numerous elements that might influence children' academic achievement in preprimary and primary schools, including as. The critical thinking of learners, Learner's participation in innovative activity, Improve learner's creative practice, Use learners creative thinking and The learner-centered method in teaching as well as The dependent variables are Learners marks fron test and exams, Learners competition result with

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other schools, Learners creativity and innovations, Cognitive and problem solving skill, Improved literacy competences as indicated in above figure.

3. Materials and Methods

The research design serves as a crucial template for integrating various components in a logical and cohesive manner to address the study's topic. Betensky (2017) emphasizes that it guides data collection, measurement, and analysis. In this study, a descriptive research method was employed to investigate the impact of developing creativity in education on the academic achievement of students in selected private nursery and primary schools in Rwanda. Descriptive research, as defined by Teddle (2022), systematically identifies a population or topic without delving into the "why" but focusing on the "what, when, where, during which, and how" questions.

The target population, according to Young (2003), comprises a large group of individuals or entities subject to scientific investigation, intending to benefit the broader population. The population of interest in this study involved 102 nursery teachers, 100 primary teachers, and 101 headteachers, totaling 303 respondents from private nursery and primary schools in Rwanda's Rubavu District.

The sample size determination followed Taro Yamane's (1967) mathematical approach, resulting in a sample size of 172 respondents. The sample distribution included 58 preprimary teachers, 108 primary teachers, and 6 head teachers. Sampling techniques involved purposeful and random selection based on the subject characteristics. Purposeful sampling targeted specific individuals, such as pre-primary and primary teachers, and straightforward random sampling was used for respondents and key informants. The study selected 11 pre-primary and primary schools purposefully based on their locations.

Data collection methods encompassed questionnaires and documentation research. The questionnaire, a cost-effective and time-efficient tool, was distributed to teachers and head teachers. Documentation research involved an in-depth examination of data from various sources, including books, articles, papers, magazines, journals, and policy studies. Regarding validity and reliability, content validity was assessed using the Content Validity Index (CVI). The researcher sought expert opinions, especially from the study supervisor, to ensure clarity and eliminate any confusing or ambiguous items. The reliability of the questionnaire was evaluated using Cronbach's alpha coefficient, aiming for a value of 0.8 or higher, indicating acceptable reliability.

Data analysis involved the use of SPSS to quantify and assess findings. Statistical techniques were applied to measure and calculate the research results, facilitating the presentation of data in tables. Ethical considerations, as emphasized by Pritha (2021), included gaining informed consent from participants, open access to material, respecting privacy, and maintaining respondent anonymity. The researcher obtained authorization from Mount Kenya University before commencing data collection.

4.1 Presentation of findings

The study analyses data gathered in accordance with research objectives and dependent variables. The study gathered both qualitative and quantitative data from 170 respondents, the study determined the nurturing creativity that influence student’s academic performance in selected private nursery and primary schools in Rwanda, analysed the student’s academic performance in selected private nursery and primary schools in Rwanda that is due to nurturing creativity in education and examined the relastionship between nurturing creativity in education and student’s academic performance in selected private nursery and primary schools in Rwanda.

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4.1.1 The nurturing creativity that influence student's academic performance in selected private nursery and primary schools in Rwanda

The research identified the nurturing activity that influence students' academic performance in Rubavu District such as Learner's participation in Creative activity, Improve learner's creative practice, Use learners creative thinking, The learner-centered method in teaching and Learning by doing.

Table 1 Table preprimary and primary teachers impression on nurturing creativity that influence student's academic performance in selected private nursery and primary schools in Rwanda

	Strongly Disagree		Disagree		Neutral		Agree		Strongl Agree		Total		
Factors	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**Mean**	**Sd**
The critical thinking of learners stimulates the nurturing creativity	14	8.6	9	5.4	6	3.6	12	7.2	125	75.3	166	1.63	1.2936
Learner's participation in innovative activity stimulate the nurturing creativity	13	7.5	6	3.6	3	1. 8	21	12.7	124	74.7	166	1.5345	1.15797
The learner-centered method in teaching encourage the nurturing creativity	6	3.6	12	7.2	0	0.0	30	18.1	118	71.1	166	1.5690	1.20105
Improve learners Creativity practice stimulate the nurturing creativity	9	5.4	15	9.0	3	1.8	12	7.2	127	76.5	166	1.7558	.91045
Learningby doing indicte nurturing creativity	0	0.0	6	3.6	8	4.8	20	12.0	132	79.5	166	1.3276	.7348

Source: Primary Data (2023)

Results in Table 1 indicate the responses on nurturing creativity that influence student's academic performance, according to the perception of preprimary and primary teachers on nurturing creativity their perceptions indicated that, 75.3% of students strongly agreed that The critical thinking of learners stimulates the nurturing creativity, 74.7% teachers from primary and preprimary strongly agreed that Learner's participation in innovative activity stimulate the nurturing creativity,71.1 % primary and preprimary strongly agreed that the learner-centered method in teaching encourage the nurturing creativity. In addition, 76.5% strongly agreed that Improve learners Creativity practice stimulate the nurturing creativity While 79.5 % strongly agreed that Learningby doing indicte nurturing creativity. From the above perception proved that Learner's participation in Creative activity, Improve learner's creative practice, Use learners creative thinking, The learner-cantered method in teaching and Learning by doing are nurturing creativity that influence the academic performance in selected private nursery and primary schools. According to (Austin, 2019), based on the

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above findings, she conducted research by creating this descriptive case investigation with the goal of determining second grade the teaching profession thoughts about creativity and providing insight into how creativity is nurtured in general education classrooms while identifying barriers to nurturing creativity. The researcher offered a thorough description, analysis, and assessment of experiences among eight teacher participants from two school locations in the same Louisiana district using Eisner's (2017) framework of educational connoisseurship and critique.

Table 2 Headteachers impression on nurturing creativity that influence student's academic performance in selected private nursery and primary schools in Rwanda

	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Total		
N Performance level	%	N	%	N	%	N	%	N	%	N	Mean	Sd	
learner's participation in Creative activity indicate the nurturing creativity	0	0.0	1	16.7	0	0.0	2	33.3	3	50.0	6	1.833	1.169
Improve learner's creative practice indicate the nurturing creativity	1	16.7	0	0.0	0	0.0	1	16.7	4	66.7	6	1.8333	1.607
Use learners creative thinking enhance their nurturing creativity	0	0.0	0	0.0	0	0.0	2	33.3	4	66.7	6	1.333	.516
The learner-centered method in teaching enhance the nurturing creativity	0	0.0	1	16.7	0	0.0	2	33.3	3	50.0	6	2.166	1.329

Source : Primary Data (2023)

Results in Table 2 indicated the responses on nurturing creativity that influence student's academic performance, according to the perception of Headteachers on nurturing creativity their perceptions indicated that, 50 % of students strongly agreed that The learner's participation in Creative activity indicate the nurturing creativity, 66.7% teachers from primary and preprimary strongly agreed that improve learner's creative practice indicate their the nurturing creativity,66.7 % primary and preprimary strongly agreed that the Use learners creative thinking enhance their nurturing creativity, In addition, While 50.0 % strongly agreed that The learner-centered method in teaching enhance the nurturing creativity. Headteachers also high number among the strongly agreed that Learner's participation in Creative activity, Improve learner's creative practice, Use learners creative thinking, The learner-cantered method in teaching and Learning by doing are nurturing creativity that influence the academic performance in selected private nursery and primary schools.

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Therefore, this can be linked with the study done by (Beyers, 2020) on Nurturing Creativity and Innovation Through FabKids indicate that This initiative must be regarded in the perspective of a global scarcity of vital skills, with a higher focus placed on the establishment and development of a pipeline to lure youngsters to professions in science, engineering, and technology. Creativity and invention are high on the skills agenda, but preliminary results show that students from a diverse variety of schools can work well in this poststructivist context. Participants were required to utilize their knowledge, skills, attitudes, and beliefs in order to solve the tasks presented. The foundations of the design process of research, create, make, evaluate, and communicate were highlighted, and the FabKids were required to draw on their own collective expertise while employing a variety of technologies.

4.1.2 The analyse the student's academic performance in selected private nursery and primary schools in Rwanda

This study analyzed level of student's academic performance in selected private nursery and primary that is due to nurturing creativity in education that obtained by analsing their Learners marks from test and exams, Learners competition result with other schools, Learners creativity and innovations and Improved learners new project.

Table 3: The perception of pre primary and primary teachers on the Students' academic performance in private nursery and primary school in Rwanda

	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Total		
Number of performance level	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**Mean**	**Sd**
Learners marks from test and exams show the performance from encouraging creativity	14	8.4	9	5.4	6	3.6	20	12.0	117	70.5	166	1.6928	1.277
Learners competition result with other schools show the performance that is due to the encouraging creativity	13	7.8	7	4.2	3	1.8	19	11.4	124	74.7	166	1.7907	.756
Learners creativity and innovations show the performance from nurturing creativity	9	5.4	16	9.3	3	1.8	19	11.4	119	71.7	166	1.3340	.568

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Cognitive and problem solving skills shows the performance from nurturing creativity	6	3.6	10	6.0	43	25.90	0.0	107	64.5	172	1.5843	1.021
Improved literacy competences shows the performance from nurturing creativity	3	1.7	5	2.9	4	2.3	46	20.4	114	66.3	172	1.4709	.82666

Source: Primary Data (2023)

Information depicted in Table 3, 70.5 % of preprimary and primary teachers agreed that the Learners marks from test and exams show their performance from encouraging creativity, 74.7% preprimary and primary teachers Strongly agreed that Learners competition result with other schools show the performance that is due to the encouraging creativity. Additionally, 71.7% preprimary and primary teachers strongly agreed that Learners creativity and innovations show the performance from nurturing creativity. Furthermore, 64.5% preprimary and primary teachers strongly agreed that Cognitive and problem solving skills shows the performance from nurturing creativity and 66.3% preprimary and primary teachers strongly agreed that Improved literacy competences shows the performance from nurturing creativity. This mean that according to the numbers of respondents proved that the following statement such as Learners marks from test and exams, Learners competition result with other schools, Learners creativity and innovations and Improved learners new project indicate the students academic performance due to the nurturing creativity in preprimary and primary school.

The study done by (Gajda, 2019) which this study was established the link between creativity and academic success has been investigated. The average connection between creativity and academic success was.22, with a 95% confidence interval of [. 19,24]. An investigation of moderators revealed that this association remained consistent as time passes, but was stronger when imagination was assessed using creativity tests rather than measures that people self- and academic performance was assessed using standardized examinations rather than average in the classroom. Furthermore, verbal creativity tests were much more related to academic achievement than figural measures.

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Table 4 Head Teachers' perception on the Students' academic performance in private nursery and primary school in Rwanda from Rubavu District

	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Total		
N Performance level	%	N	%	N	%	N	%	N	%	N	Mean	Sd	
Learners marks from test and exams show te performance from encouraging creativity	0	0.0	1	16.7	0	0.0	2	33.3	3	50.0	6	1.833	1.169
Learners competition result with other schools show the performance that is due to the encouraging creativity	1	16.7	0	0.0	0	0.0	1	16.7	4	66.7	6	1.8333	1.607
Learners creativity and innovations show the performance from nurturing creativity	0	0.0	0	0.0	0	0.0	2	33.3	4	66.7	6	1.333	.516
Cognitive and problem solving skills shows the performance from nurturing creativity	0	0.0	1	16.7	0	0.0	2	33.3	3	50.0	6	2.166	1.329

Source : Primary Data (2023)

Results presented in Table 4, 50% of headteachers agreed that the Learners marks from test and exams show their performance from encouraging creativity, 66.7 % headteachers strongly agreed that Learners competition result with other schools show the performance that is due to the encouraging creativity, 66.7 % headteachers strongly agreed that Learners creativity and innovations show the performance from nurturing creativity. Furthermore, 50.0% headteachers strongly agreed that Cognitive and problem solving skills shows the performance from nurturing creativity. This mean that according to the numbers of respondents proved that the following statement such as Learners marks from test and exams, Learners competition result with other schools, Learners creativity and

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innovations and Improved learners new project indicate the students academic performance due to the nurturing creativity in preprimary and primary school.

According to the research done by (Juan Yang, 2018), on the influence of creative thinking on academic achievement varies depending on the group. It has a greater favorable impact on the academic performance of males, low-achieving pupils, and students from disadvantaged families. Policymakers in education should focus on nurturing students' creative thinking, and intervention programs geared at creative thinking for underprivileged students would provide greater results. The study's key contributions are in unraveling the influence of creative thinking on academic performance, analyzing the processes by which this relationship arises, and discussing the heterogeneous effects across different groups.

4.1.3 Relationship between nurturing creativity in education and student's academic performance in selected private nursery and primary schools in Rwanda

This association between nurturing creativity in education and student's academic performance in selected private nursery and primary schools in Rwanda

Table 5 Correlation between students' classroom activities and their academic performance in public secondary schools in Rubavu district

		Learner's participation in Creative activity	Improve learner's creative practice	Use learners creative thinking	The learner-centered method in teaching	Learning by doing	Learners marks from test and exams	Learners competition result with other schools	Learners creativity and innovations	Improved learners new project
Learner's participation in Creative activity	Pearson Correlation	1								
	Sig. (2-tailed)									
	N	170								
Improve learner's creative practice	Pearson Correlation	.916**	1							
	Sig. (2-tailed)	.000								
	N	170	170							
Use learners creative thinking	Pearson Correlation	.968**	.911**	1						
	Sig. (2-tailed)	.000	.000							
	N	170	170	170						
The learner-centered method in teaching	Pearson Correlation	.966**	.910**	.970**	1					
	Sig. (2-tailed)	.000	.000	.000						
	N	170	170	170	170					
Learning by doing	Pearson Correlation	.378**	.412**	.370**	.385**	1				
	Sig. (2-tailed)	.000	.000	.000	.000					
	N	170	170	170	170	170				

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Learners marks from test and exams	Pearson Correlation	.967**	.894**	.983**	.985**	.366**	1			
	Sig. (2-tailed)	.000	.000	.000	.000	.000				
	N	170	170	170	170	170	170			
Learners competition result with other schools	Pearson Correlation	.570**	.572**	.580**	.586**	.397**	.598**	1		
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000			
	N	170	170	170	170	170	170	170		
Learners creativity and innovations	Pearson Correlation	.955**	.880**	.970**	.972**	.354**	.988**	.604**	1	
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		
	N	170	170	170	170	170	170	170	170	
Improved learners new project	Pearson Correlation	.102	.110	.144	.098	.098	.116	.205**	.122	1
	Sig. (2-tailed)	.186	.154	.061	.202	.204	.132	.001	.113	
	N	170	170	170	170	170	170	170	170	170

**. Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at 0.05 level (2-tailed)

Source: Primary Data (2023)

A strong relationship with positive significance was established between Learners marks from test and exams and Learner's participation in Creative activity (r=.967**p-value=0.000), Learners marks from test and exams and Improve learner's creative practice shows the (r=.894**p-value=0.000), Learners marks from test and exams with Use learners creative thinking also indicated that there were positive significance with (.223 **, p-value =.001), Learners marks from test and exams and The learner-centered method in teaching shows positive significance at (.985**, p-value =.000)

For Learners competition result with other schools positive significant with participation in Creative activity (r=.570**p-value=.000), Learners competition result with other schools and Improve learner's creative practice showed the (r=.572**p-value=.000), Learners competition result with other schools and exams with Use learners creative thinking also indicated that there were positive significance with (.580**p-value =.000), Learners competition result with other schools and The learner-centered method in teaching shows positive significance at (.586**, p-value =.000), Learners competition result with other schools and Learning by doing indicated positive significance at (.397**, p-value =.000) , Learners creativity and innovations indicated the positive significant with participation in Creative activity (r=.955**p-value=.000), Learners creativity and innovations and Improve learner's creative practice indicated the positive significant at (r=..880**p-value=.000), Learners creativity and innovations and exams with Use learners creative thinking also indicated positive significance at (.970**p-value =.000), Learners creativity and innovations and the learner-centered method in teaching shows positive significance at (.972**, p-value =.000), Learners creativity and innovations and Learning by doing indicated positive significance at (.354**, p-value =.000)

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The result indicated the insignificant correlation between Improved learners new project with participation in Creative activity (r=.102p-value=.186), with Improve learner's creative practice at (r=.110,p-value=.154), Improved learners new project and exams with Use learners creative thinking also indicated insignificance correlation at (.144p-value =.061), Improved learners new project and The learner-centered method in teaching shows positive significance at (.098, p-value =.202), Improved learners new project and Learning by doing indicated positive significance at (.098p-value =.204).according to the above explained that Learners marks from test and exams shows the positive significance between Learners competition result with other schools and Learners creativity and innovations with Learner's participation in Creative activity, Improve learner's creative practice, Use learners creative thinking, The learner-centered method in teaching and Learning by doing. While insignificant was indicated between improved learners new project with these above statements.

Narayanan (2019) conducted research in this area. The study discovered a favorable relationship between creativity and innovation and student academic achievement when diverse teaching styles were applied. These tactics assist students in comprehending a concept, arouse their interest in learning more about it, and form long-lasting memories and connections to it. In order to ensure that students' academic performance improves, the researcher has suggested a few strategies that teachers and Educators in private higher education institutions might employ student-centered learning rather than the standard teaching technique to instruct pupils.

Table 6: Regression Coefficients between independent variable and Learners marks from test and exams

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.469	.098		4.775	.000
	Learner's participation in Creative activity	.223	.066	.474	3.371	.002
	Improve learner's creative practice	-.025	.061	.464	1.407	.001
	Use learners creative thinking	.097	.059	.261	1.641	.001
	The learner-centered method in teaching	-.166	.051	.361	3.270	.002

a. Dependent Variable: Learners marks from test and exams
Source: Primary data (2023)

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Data presented in Table 6, indicates regression coefficients of Level of knowledge It showed that Learner's participation in Creative activity were statistically significant to Learners marks from test and exams (B=.474, p-value=0.001). Results shown that Improve learner's creative practice were statistically significant Learners marks from test and exams (B=-.464, p-value=0.001). Therefore, results shown that Use learners creative thinking significant affecting Learners marks from test and exams (B=0.261, p-value=.001). Results shown that the learner-centered method in teaching was significant with Learners marks from test and exams (B=.361, p-value=0.002). From the above result of regression analysis indicated that there are significant between independent variables with Learners marks from test and exams meaning that those independent variable each can affect the Learners marks from test and exams in preprimary and primary school.

Table 7: Regression Coefficients between independent variable and Increasing Critical thinking in performance History

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.127	.284		7.486	.000
	Learner's participation in Creative activity	-.040	.187	-.052	-.212	.834
	Improve learner's creative practice	-.030	.178	-.045	-.167	.868
	Use learners creative thinking	-.087	.174	-.137	-.502	.619
	The learner-centered method in teaching	--.122	.149	-.144	-.821	.417

a. Dependent Variable: Learners competition result with other schools

Source: Primary data (2023)

Data presented in Table 7, indicates regression coefficients of Level of knowledge It showed that Learners competition result with other schools were not statistically significant to Learners marks from test and exams (B=-.052, p-value=.834). Results shown that Improve learner's creative practice were not statistically significant Learners competition result with other schools (B=--.052, p-value=.868). Therefore, results shown that Use learners creative thinking significant affecting Learners competition result with other schools (B=-.045, p-value=.619). Results shown that the learner-centered method in teaching was significant with Learners competition result with other schools (B=-.144, p-value=0.417). From the above result of regression analysis indicated that there are not significant between independent variables with Learners competition result with other schools meaning that those independent variable each can affect a little on the Learners competition result with other schools in preprimary and primary school.

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Table 8 Regression analysis between Independent Variable and Learners creativity and innovations

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.010	.033		.302	.763
	Learner's participation in Creative activity	.078	.071	.078	1.098	.274
	Improve learner's creative practice	-.125	.040	-.124	-3.089	.002
	Use learners creative thinking	.485	.074	.481	6.535	.000
	The learner-centered method in teaching	-.547	.072	.543	7.600	.000

a. Dependent Variable: Learners creativity and innovations
Source: Primary data (2023)

Data presented in Table 8, indicates regression coefficients of Level of knowledge It showed that Learner's participation in Creative activity were not statistically significant to Learners creativity and innovations (B=.078, p-value=.274). Results shown that Improve learner's creative practice were statistically significant Learners creativity and innovations (B=-.124, p-value=0.002). Therefore, results shown that Use learners creative thinking were significant affecting Learners creativity and innovations (B=.481, p-value=.000). Results shown that the learner-centered method in teaching was significant with Learners creativity and innovations (B=.543, p-value=.000). From the above result of regression analysis indicated that there are significant between independent variables with Learners marks from test and exams however on the result also indicated that the Learner's participation in Creative activity had not statistically significant with Learners creativity and innovations.

Table 9: Regression analysis between independent variable and Improved Communication through language skills

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.441	.148		9.709	.000
	Learner's participation in Creative activity	-.345	.315	.379	-1.096	.001
	Improve learner's creative practice	.032	.179	.035	.177	.859
	Use learners creative thinking	.918	.330	.996	2.785	.006
	The learner-centered method in teaching	-.488	.319	-.530	-1.527	.129

a. Dependent Variable: Improved learners new project

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Data presented in Table 9, indicates regression coefficients of Level of knowledge It showed that Learner's participation in Creative activity were statistically significant to Improved learners new project (B=.379, p-value=0.001). Results shown that Improve learner's creative practice were not statistically significant Improved learners new project (B=.035, p-value=0.859). Therefore, results shown that Use learners creative thinking significant affecting Improved learners new project (B=0.330, p-value=.006). Results shown that the learner-centered method in teaching was not significant with Improved learners new project (B=-.530, p-value=0.129). From the above result of regression analysis indicated that there are significant between Learner's participation in Creative activity and Use learners creative thinking with Improved learners new project meaning that those independent variable each can affect the Improved learners new project in preprimary and primary school however insignificant with improved leaners new project were indicated it with The learner-centered method in teaching and Improve learner's creative practice.

5.1 Conclusion

Based on findings from this research, the first Research objectives, the study reveals that most commonly Nurturing activities such Learner's participation in Creative activity, Improve learner's creative practice, Use learners creative thinking, The learner-cantered method in teaching and Learning by doing Influencing Students academic performance of preprimary and primary schools in Rubavu district in Rwanda.

The seconda objective The research proves that Learners marks from test and exams, Learners competition result with other schools, Learners creativity and innovations and Improved learners new project shows the level of Students academic performance.

Results from objective three reveal that the nurturing creativity in education and student's academic performance in selected private nursery and primary schools the level were positively and statistically correlated since most of their level of significance level were more 0.05 in association with student's academic performance in selected private nursery and primary schools in Rubavu District, Rwanda.

5.2 Recommendations

Taking into account the study findings and information argued, the author sought to give some recommendations to the study. All people involved in education sector in Rubavu District are recommended to work collaboratively with parents in order to enhance the Student academic performance among all Preprimary and primary schools

MINEDUC through Rwanda Education Board is recommended to avail enough teaching and learning materials which are adequate in enhancing nurturing activities of students in the classroom. MINEDUC should provide enough trainings intended to boost teachers' ability to teach by using activity in teaching and learning session.

More training must be given to the teachers of especially those ones fromprimary and preprimary teachers andheadteacher on how nurturing activity help learners to enhance their knowledge and skills.

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References

Cheboi, S. T. (2021). Teachers' Innovation and Learners' Academic Achievement in Public Primary Schools in Marakwet East Sub- County, Kenya. *ReseachGate*.

Creswell, J. W. (2017). Research Design: Qualitative, Quantitative and Mixed Methods Approaches (4th ed.). Thousand Oaks, CA: Sage. *Scientific Resaech academic publisher*.

Lewis, W. (2019). Nurturing innovation and creativity in educational. *check for updates*.

Majid. (2018). Research Fundamentals: Study Design, Population. *ResearchGates*.

McCombes, S. (2022). Descriptive Research | Definition, Types, Methods & Examples. *Scribber*.

Milligan, D. L. (2017). Learning from Innovation for Education in Rwanda. *Bristor working papers in education series*.

MINEDUC. (2017). Learning from Innovation and creativity in rwanda . *:UK Department for International Development*.

Mugarura, F. I. (2019). *Rwanda Creativity and Innovation Manifeston.*

Narayanan, S. (2017). Study on the Relationship between Creativity and Innovation in Teaching and learning toward the academic performance. *ResearchGate*.

Nsengimana, V. (2021). *Implementation of Competence-based Curriculum in Rwanda: Opportunities and Challenges.*

Olatoye, R. (2016). Relationship between innovation, Creativity and Academic Achievement of business Administration students . *Africa Research Review*.

REB. (2017). *Rwandan Future Education.*

Sharna, K. (2023). Importance of creative and Innovation in academics. *The Asian School*. Récupéré sur https://www.theasianschool.net/blog/importance-of-creativity-and-innovation-inacademics/

UNESCO. (2019). Innovation Pedagogical Approaches in Early Childhood Education ECCE. *Arnec*.

UNICEF. (2023). *Three ways UNICEF is innovating for children and unlocking their creativity.* UNGM - United Nations Market Place. Récupéré sur https://www.unicef.org/supply/stories/threeways-unicef-innovating-children-and-unlocking-their-creativity

Winks. (2021). Nurturing innovation and creativity in educational practice: principles for supporting faculty peer learning through campus design. *Springerspace*.

Winks, L. (2019). Nurturing innovation and creativity in educational. *check for updates*.

Yin., R. K. (2015). Case Study Research Design and Methods (5th ed.). Thousand Oaks, CA: Sage. 282 pages. *Canadian Journal of Program Evaluation 30(1)*.