

CREATIVITY AND INNOVATIONS IN TEACHING: A RURAL BASED EXPERIENCE

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Abstract. Pedagogical creativity and innovation—whether involving technology or not, is shaped by a complex interaction of the innovation with contextual factors such as school and school policy, leadership, cultural norms and values, teacher attitudes and skills, and student characteristics wherein creative execution marks the difference. The study examined school and classroom contexts in which pedagogical creativity and innovations takes place. Data were obtained from the rural based communities from Division of Rizal and Antipolo, Philippines.

The study uncovered reasons for classroom creativity and innovation, the extent of adoption of various innovative strategies covering pedagogical approaches, techniques, curricular enhancement, course design and organization and assessment. Best creative and innovative practices were derived from conducted observations and focused group discussions. Results of the study brings into picture various creative and innovative strategies employed by the respondents to cope up with the demands of outcome based learning. Further, the teachers', students and administrators' role were found as essential conditions for the sustainability of classroom innovation and creative delivery. Related contributing factors for sustainability were supportive plans and policies, funding, innovation champions, and internal and external recognition and support. An explanatory innovation and creative delivery sustainability framework was derived from a qualitative analysis of the responses and cases using grounded theory technique.

Keywords: creativity in teaching, teaching innovations, classroom innovations.

1. Introduction

Education is imperative in peoples' lives. For some, the importance of education is relative, however, in today's world, education in its most practical sense, is definitely essential in order to be successful. The benefits of education are immeasurable. It is a binding process because individuals who continue their education grow into more experienced members of the community that eventually have the greater chance of having a better life. However, for education to achieve its full appreciation, innovative executions can make the process nourishing.

The ability to measure innovation is essential for the creation of awareness on the level of its accomplishment. Knowing whether, and how much, practices are changing within classrooms and educational organizations, how teachers develop and use their pedagogical resources, and to what extent change can be linked to improvements for the provision of sustainable innovative pedagogical practices is indeed vital.

Philippine Education for All 2015 Part 1, letter C, of Policies Program and Projects to achieve EFA target, No. 31 of Formal Basic Education states that:

"To increase access to quality, relevant and efficient formal primary education, the country has introduced and implemented innovations and reforms in the curriculum, testing and assessment, teacher development, school improvement and alternative delivery modes."

Relative to this, the quality of education is always manifested in the students' performance and their achievement level. As stated in the 1987 Philippines Constitution, Article XIV Section 10:

"Science and technology are essential for national development and progress. The State shall give priority to research and development, invention, innovation, and their utilization; and to science and technology education, training and services. It shall support indigenous, appropriate, and self-reliant scientific and technological capabilities, and their application to the country's productive systems and national life."

Raising the bar of the Philippine Educational System, the Department of Education through the mandate of the its Chief Executive proceeded with the implementation of K to 12 program which is an outcome based system. Its execution again is in the hands of the direct implementers specifically the classroom teachers. Hence, educational institutions across the nation have begun revising instructional programs in an effort to meet society's demands for a 21st century workforce. Determined what these needs are, how to address them, and how to revise established curriculum often rests on the laps of many teams. Innovations in education have the potential to significantly increase access to quality education for the teachers view on educational systems around the world to capitalize on innovation so as to increase access to quality education and improve teaching outcomes. Technology has transformative power and is therefore of central importance for education. Innovation and creativity goes together for sound classroom delivery.

Creativity should not be relegated to any specific art class alone. There are places for all teachers to add creative elements in the delivery process. It is imperative that teachers light the creative fire with the students -- otherwise, the generation will make up a nation entering a dark age with very little creativity. Creative thoughts are needed for a more adventurous and out of the box thinking. Teachers have to make sure to remind students of the value of creativity, to provide them every chance to show it in the classroom.

Educators in the academe believed that creative and innovative delivery of the lesson is the core of the teachers and students development; it is the reflection of the performance of the teachers, the reason why educators should think a creative and dynamic, structured, meaningful, referential and interpersonal curriculum of frame work instruction. To meet the challenges of the 21st century, series of trainings have been exerted, personal attempts of teachers were delivered and enormous achievements were gathered. For wider patronage and appreciation, the need for documentation and creation of awareness is indispensable, hence this study.[2]

The researcher was prompted to conduct the study to define the various creative and innovative strategies employed by basic education teachers to cope up with the demands of outcome based learning. Specifically, the study sought answers to the following questions:

Problem Statements:

1. What is the profile of the teacher respondents in terms of?
 - 1.1 sex;
 - 1.2 age;
 - 1.3 highest educational attainment;
 - 1.4 area of specialization;
 - 1.3 length of teaching experience
2. What are the reasons why creativity and innovations take place in the school setting?
3. Is there a significant difference between the educational creativity and innovations as assessed by two groups of respondents?
4. What is the extent of adoption of various educational creative and innovative strategies by the respondents considering:
 - 2.1 pedagogical approaches
 - 2.2 technologies
 - 2.3 curricular enhancement
 - 2.4 course design and organization
 - 2.5 assessments?
5. Is there a significant difference on the extent of adoption of various creative and innovative strategies considering the two groups of respondents in terms of :
 - 5.1 pedagogical approaches
 - 5.2 technologies
 - 5.3 curricular enhancement
 - 5.4 course design and organization
 - 5.5 assessments
6. Is there a significant difference between the extent of adoption of various creative and innovative strategies and Respondents' Profile?
7. What are best creative and Innovative Practices adopted by Respondents in terms of :
 - 4.1 evolving goals
 - 4.2. description of the innovation(s)
 - 4.3 underlying philosophy and strategies used to guide, implement and refine the innovation(s).
 - 4.4. context in which the innovation(s) was conceived and applied ?
8. What are the perceived influences of educational innovations and creative lesson implementation on the quality of service delivery?
9. Is there a significant difference on the perceived influence of respondents on educational innovations and creative lesson implementation on the quality of service delivery considering the cited aspects?
10. Is there a significant difference on the perceived influence of two groups of respondents on educational innovations and creative lesson implementation on the quality of service delivery considering the various aspects and the Respondents' Profile?
11. What are the assessed essential conditions for the sustainability of classroom innovation and creative lesson implementation?
12. What educational innovation and creative lesson implementations Sustainability framework can be proposed based on the findings of the study?

2. Theoretical Framework

The study is anchored on "Diffusion of Innovation Theory" developed by Everett Rogers. Rogers (2005) described how the diffusion of innovation takes place in a social system as people undergo a five-step process to assess the impact of change on their work and lives:

1. In the knowledge step, they become aware of a new idea and begin to develop their understanding of the function of this innovation.
2. People are then persuaded to form either a favorable or unfavorable attitude about this change.
3. They decide whether to adopt or reject the innovation.
4. They implement the new idea.
5. They confirm their decision by evaluating the results of the implementation.

Rogers' theory acknowledges that people go through these steps at widely varying speeds and in ways that influence how others around them will respond to and adopt the innovation. Some people are innovators, the first in line to try out new things. Close behind them are early adopters, who are drawn to a new idea through the positive responses of innovators about the benefits of adopting it. Following the early adopters in stages are the early majority, the late majority, and the laggards, who may resist adopting a new idea until they are penalized in some way for resisting.

The theory is related to the study since effective teaching is a continual work in progress. As educators, practices are adopted each year to a new group of students, each of whom brings a unique blend of strengths, challenges, and experiences to learning. New curricula and apply new standards and mandates and related activities to enhance learning. The adoption rate of a new idea or approach is influenced by several factors.

At the core of diffusion of innovation theory is the tipping point at which a new idea gains wider acceptance and adoption. The tipping point is the stage where small changes and advances have accumulated to gain significant momentum toward more profound progress. For educators, the question becomes: What can people who are in favor of this progress do to "move the dial" toward the tipping point? This issue is at the heart of transformational teaching -- finding ways to move effective educational practices and initiatives past the tipping point into the realm where teachers, administrators, and policy makers acknowledge their positive impact and agree on the need to integrate them into school systems.

The theory is related in this study since research in general education has pointed out the need for feedback from testers to many key players in the educational system, and for adequate resourcing and training. Innovation theory provides further insights into why attempts to introduce change in the classroom are essential and must be assessed and communicated.

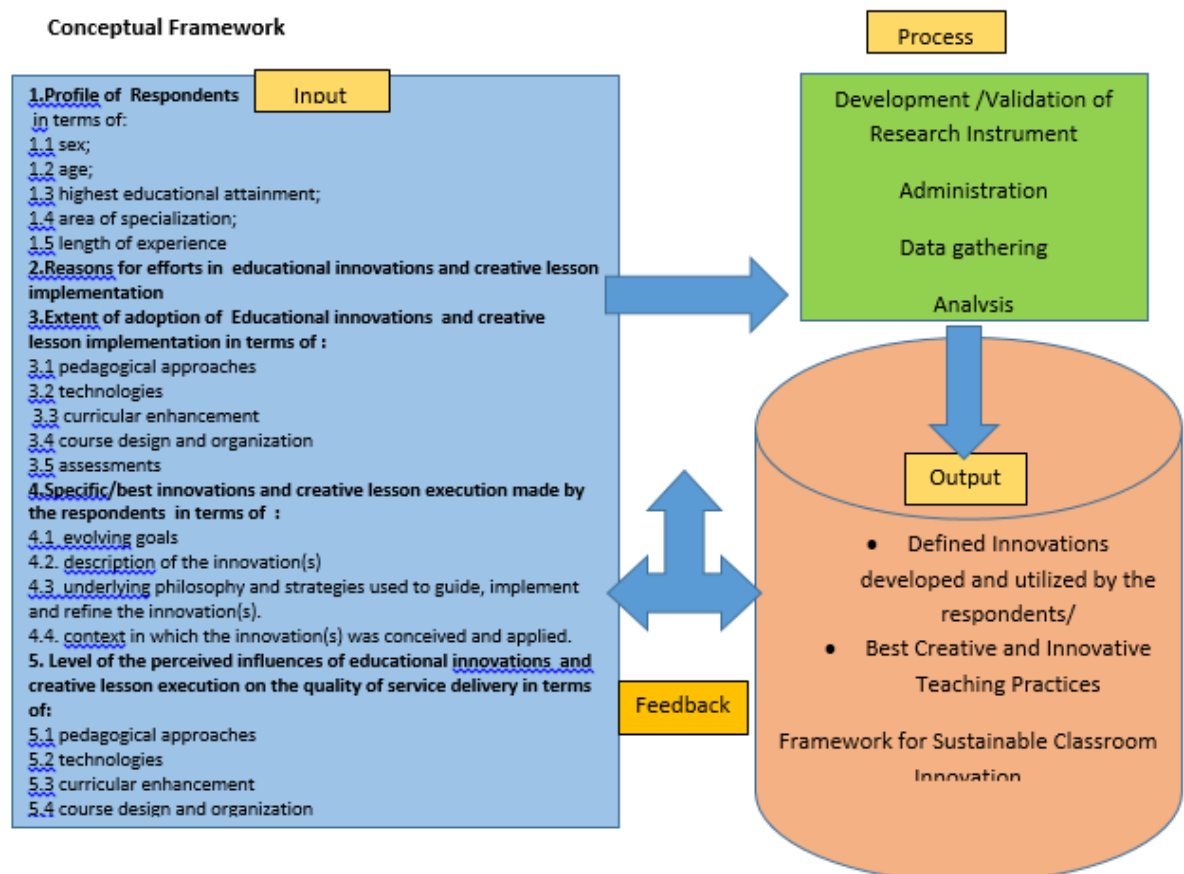


Figure 1: Conceptual Framework on the Creativity and Innovation in Teaching

3. Methodology

Descriptive survey complemented with data analysis and direct observation was employed to define the various creativity and innovation in Teaching in Basic Education initiatives of the two hundred twenty one respondents from rural based communities from Division of Rizal and Antipolo, Philippines for Academic year 2015-1017. Descriptive design was utilized for purposes of defining the status of the study considering the cited parameters. To enhance the result of the conducted survey, focused group discussions were conducted on different occasions to further validate selected cases on creative lesson executions and classroom innovations.

Frequency and percentage distribution for the profile of the respondents were. T-test for the influence of educational innovations in the quality of delivery system was applied.

Review of Related Literature and Studies

As stated by Loretta and Green (2015), the second decade of the 21st century exists a range of definitions of what a 21st century learning environment is. The author further stressed that scenario can be troublesome for teacher educators who strive to prepare themselves for environments that can't clearly describe in order to set out a 21st century learning environment. The assumed learning environment poses great implications the entire academic community in whatever perspective or category they belong.

As cited by Keith (2015), there is a need to understand teachers' complex relationship with new technologies and media in both their personal and their professional lives. In Keith's conceptual framework, the endeavor describes the construction of a complex narrative ecology around teachers' professional and personal relationship with new technologies and media. The model is applied and evaluated in a fine-grained narrative case study of one student teacher's approach to the use of a virtual learning environment (VLE) in an intervention within a primary school in the United Kingdom. The findings suggest that using the narrative ecology model to story teachers' personal and professional experiences with technology brings meaning and new insights to teachers' nuanced relationships with technology, creating a site for further professional development and learning.

Frank, Focus, Fiddle and Friends (2015) hypothesize that the value of different sources of knowledge depends on a teacher's current level of implementation. The study tested the theory using longitudinal network data from 470 teachers in 13 schools. The authors infer that the more a teacher at the lowest initial levels of implementing an innovation is exposed to professional development focused on student learning, the more she increases her level of implementation (Focus); the more a teacher at an intermediate initial level of implementation has opportunities to experiment and explore, the more she sustains her level of implementation (Fiddle); and the more a teacher at a high initial level of implementation accesses the knowledge of others, the more she increases her level of implementation (Friends). Concerning the potential for selection bias, the authors quantify how large the impacts (Frank 2000) of confounding variables must be to invalidate their inferences. In the discussion, the authors emphasize the changing nature of knowledge through the diffusion process.

As attested by Lim (2015) ,using virtual environment , explores the utilization of set of strategies and conditions that can encourage and sustain the use a problem-based learning environment. The set of strategies and conditions includes the commitment of the teachers and their support through professional development, ongoing technical assistance, and students' orientation and scaffolding. These factors predict the likely survival of an education innovation in the school and the possibility of scaled up for more widely-used pedagogical practice. As cited by Blouin , academicians might protest vociferously, there have been opportunities that became a threat to the system of learning because education has focused for far too long and much too closely on the wrong metric of student performance, and that this misguided focus, however practical and well-intentioned, has influenced virtually all aspects of the educational enterprise. , [1,2] Further, proposition explored the *raison d'être* for system of education to become simple and straightforward: to prepare students, predominantly young adults, for future success. Success, of course, can be defined in many ways: the ability to pursue and advance in the career of one's choice; the ability to contribute meaningfully to one's community; the ability to pursue an "intellectual life." The challenge to basic education therefore, is in measuring, in a meaningful way, the success of its students.

In conformity with the Innovation guide of Havelock (2015), specific recommendation on explicit innovations provide information on how successful novelty takes place and how those who facilitate planned change or planned innovations can organize their work to insure success. The suggested stages in such a planned change are: building a relationship, diagnosing the need, acquiring relevant resources, choosing the solution, gaining acceptance, stabilizing the innovation, and generating self-renewal. The author makes detailed suggestions for each of these stages.

Sandholtz (1997) asserted that teachers are responsible for juggling knowledge of where students are and where they need to go; having insights into students' special needs and progress; choices of curricular activities and materials; rules that govern children's participation; expectations from parents and communities; and the norms and rules that govern them as teachers. The addition of technology further complicates the equation and presents many new questions. Lubienski (2003) in his study of charter schools had emphasized the elevation of choice and competition to foster educational innovations. These market-style mechanisms are intended to challenge standardized practices associated with district administration of schools. However, a comprehensive review of practices in charter schools indicates that, although some organizational innovations are evident, classroom strategies tend toward the familiar. Drawing on organizational and economic theory, this article considers the forces shaping educational innovation in market-oriented reforms. The discussion highlights the potential for choice and competition to constrain opportunities for educational innovation and to impose pedagogical and curricular conformity.

According to Blouin, Robinson, Beck, Green, Joyner & Pollack (2009) , the primary reason or *raison d'être* for higher education is simple and straightforward; that is to prepare students, predominantly young adults, for future success. Success, of course, can be defined in many ways: the ability to pursue and advance in the career of one's choice; the ability to contribute meaningfully to one's community; the ability to pursue an "intellectual life." The challenge to higher education, and where one can contend that the academy has failed, is in measuring, in a meaningful way, the success of our students. The writers further emphasized on the content mastery by students, which by definition places content delivery as opposed to the student at the center of the educational process, has other, somewhat more insidious, implications for selecting the "players" in higher education. Students are recruited and ultimately admitted largely based on prior academic performance. Those of us involved in the recruitment and admissions processes of course believe we are pursuing a holistic approach that considers the full range of student attributes, from

intellectual capability to communication skills to civic-mindedness. they are appropriate indicators of the likelihood of success in the next level of content acquisition, but do not necessarily reflect a student's capability of integrating that content, in a meaningful way, into a long-term professional career.

As mentioned by [5] in one of his articles, educators are concerned about the effects that tests may have on teaching and what they should do to ensure that these effects are beneficial. Some ELT specialists have offered advice on how to produce positive washback, calling for attention to test design and the communication between testers and teachers. Research in general education has pointed out the need for feedback from testers to many key players in the educational system, and for adequate resourcing and training. Innovation theory provides further insights into why attempts to introduce change in the classroom are often not as effective as their designers hoped they would be.

4. Results and Discussion:

A. Profile of the Teacher Respondents

Table 1 Frequency and Percentage Distribution of the Respondents' Profile

	Elementary		Secondary	
	No.	%	No.	%
No. of Respondents	3	100	28	100
Sex				
Male	6	7.2	3	5.8
Female	7	28.8	5	4.2
Sub Total	3	100	28	100
Age				
20-29 yrs. old	1	1.8	1	6.4
30-39 yrs. old	5	7.6	3	3.6
40-49 yrs. old	2	4.4	6	8.1
50-59 yrs. old	5	6.1	6	0.3
60 and above			0	.6
Sub Total	3	100	28	100
Highest Educational Attainment				
Ph. D./ Ed. D. Graduate	1	4.1		.2
Ph. D./ Ed. D. Graduate Studies	7	0.6	0	.8
MA/ MAT Graduate	3	4.7	3	0.2
MA/ MAT Studies	1	2.6	2	0.6
BEEd/ BSE/ BS/ AB Graduate		.1	5	5.2
Sub Total	3	100	28	100
Length of Service (Public School)				
1-5 yrs	6	8.0	1	7.6
6-10 yrs	0	2.3	8	4.1
11-15 yrs	7	8.3	5	1.7
16-20 yrs			1	1

	5	6.1	3	0.2
21-25 yrs		.3	4	1
26 yrs		.1	1	1
Sub Total			1	1
	3	00	28	00
Length of Service (Private School)				
1-5 yrs	3	4.0	4	6.6
6-10 yrs		.2	2	5
16-20 yrs		.1	1	3
21-25 yrs		.1	1	
Sub Total	7	8.27	5	5.15
Item				
Permanent	3	00	28	00
Temporary			0	0
Sub Total	3	00	28	00
Specialization				
English			0	1
			5	4.8
Math			0	1
			9	0.9
Science			0	1
			3	4.8
TLE			0	1
			8	4.1
MAPEH			0	7
			0	.8
Filipino			0	9
			2	.4
History			0	.
				8
Values			0	3
				.9
Araling Panlipunan			0	4
			5	.7
Content Courses	3	00	1	0
Sub Total	3	00	1	1
	3	00	28	00

The first table speaks of the respondents' profile of two hundred twenty one (221) respondents, ninety three (93) coming from elementary and one hundred twenty eight (128) from secondary schools within the Province of Rizal. In terms of sex, there are seventy seven (77) female teachers coming from elementary and 95 female teachers coming from secondary level comprising 74.2% of the population. In terms of age, majority belongs to age bracket 30-39 years old from both clusters. Considering the highest educational attainment, there are 47 or 50.6% of the respondents from secondary level that are already in the process of earning their doctoral degree, while majority of respondents from elementary cluster or 40.6% are enrolled in the masters level.

Considering the length of service in public school of both clusters, majority have stayed for 1-5 years in the service, one hundred percent of them are permanent in the service and are in the Teacher 1/ Secondary School Teacher 1 status. Majority of those interviewed are English and Science teachers.

5. Reasons for Innovation

Table 2 Mean of Responses on Reasons for Creativity and Innovation

	I innovate because I want to :	Elementary		Secondary		Overall Mean	
		Mean	I	Mean	I		
	to enhance my students' motivation.	.52	SA	.49	SA	.50	SA
	to foster intellectual agility among my students.	.43	SA	.41	SA	.42	SA
	to encourage democratic habits among my students.	.37	SA	.29	SA	.33	SA
	to create opportunities for students to practice and sharpen a number of skills, including the ability to articulate and defend positions, consider different points of view, and enlist and evaluate evidence.	.47	SA	.49	SA	.48	SA
	to demonstrate relevance of the topic.	.45	SA	.49	SA	.47	SA
7	to encourage participation	.62	SA	.62	SA	.62	SA
	to make high-quality participation "count"	.51	SA	.51	SA	.51	SA
	to evaluate the discussion	.45	SA	.41	SA	.43	SA
0	to create a setting conducive for discussion	.48	SA	.50	SA	.49	SA
1	to explain deeply the topic for the day like relating lessons to real life.	.52	SA	.57	SA	.54	SA
2	to capacitate them in the interpretation of data.	.34	SA	.38	SA	.36	SA
3	to personalize my teaching.	.38	SA	.26	SA	.32	SA
4	to conduct session assessments.	.33	SA	.20	SA	.26	SA
5	to give attention to special topics/provide attention to details.	.41	SA	.29	SA	.35	SA
6	to give attention to the creation of professional learning communities for teachers, and relationship building with external stakeholders, such as parents.	.41	SA	.23	SA	.32	SA
7	to inspire my students	.57	SA	.62	SA	.59	SA
8	to test my capability	.43	SA	.51	SA	.47	SA
9	to Challenge my self	.37	SA	.51	SA	.44	SA
0	to build my credentials	.30	SA	.42	SA	.36	SA
1	to teach beyond the coverage of the syllabus.	.35	SA	.26	SA	.30	SA
2	to make do and maximize the locally available materials	.7	SA	.8	SA	.75	SA
		.44	SA	.42	SA	.43	SA

Information from the second table provides input on reasons why the respondents opt to creatively execute lessons and innovate things during the teaching learning session. Top in the list is the desire of the teachers to make do and maximize the locally available materials followed by reasons like encouraging participation, provision of giving inspiration and making high-quality participation "count". While on the other hand, conduct of session assessments ranked least among the stated reasons.

Notably, reasons like “to personalize teaching” and “innovate to give attention to the creation of professional learning communities for teachers, and relationship building with external stakeholders, such as parents” ranked almost the same with an average of 4.32 which is second to the last among the options in terms of the average mean.

It can be added that based on the conducted FGD, the following responses were gathered: When asked on the reasons why teachers opt to inject some innovations, the following were their responses:

1. No available materials, so innovation takes place to replace what is not present at the moment.
2. Available materials are not working due to limitations of the school facilities, to make things work, localization of materials are applied.
3. There are equipment, but the teacher do not know how to operate, so the teachers opt to use what is available to make a good support to the concept being presented.

Result of the conducted FGD strongly supports the survey result that teachers innovate to maximize delivery by using their creativity thus innovate along the process to make the teaching and learning environment as encouraging as possible.

C. Significant Difference on the Reasons for Creativity and Innovation:

table 3 Significant Difference on the Reason for the Innovation as Assessed by Two Groups of Respondents

	L evel	ean	d	M ean Diff.		f	ig	o	I
Reason for Creativity and Innovation	El ementary	.44	.54	01 0.	.21	13	835	R	S
	Se condary	.42	.49						

Information from the 3rd table shows that there is no significant difference on the reasons for creativity and innovations considering the perceptions of the two groups of respondents in terms of the level where the respondents teach since the obtained t – value of .835 is greater than 0.05 significance level, hence the null hypothesis is accepted.

Based on the conducted focused group discussions that were attended by teacher respondents in both levels, they innovate and creatively execute lessons because they want to maximize participation level which was validated by written responses submitted .However, many of the respondents agree to the fact that innovation is a way of solving problems on inadequacy of IMs and inadequacy of knowledge in operating available Instructional Equipment.

D. Extent of adoption of various educational creative and innovative strategies by the respondents in terms of pedagogical approaches, technologies, curricular enhancement, course design and organization :

Table 4 Composite Table of Mean on extent of Adoption of Various Educational Innovations and Creative Lesson Delivery Modalities

Aspect	Ele mentary		Se condary		ve Mean	I
	ean	I	ean	I		
Pedagogical Approaches	.20	SA	.18	A	.19	SA
Use of Technologies	.77	A	.99	A	.88	A
Curricular Enhancement	.02	A	.06	A	.04	A
Course Design and Organization	.96	A	.02	A	.99	A
Assessment	.00	A	.05	A	.01	A
Average	.97	A	.06	A	.01	

5-4.2= Very strongly agree 3.4-4.19= Strongly Agree 2.6-3.39= Agree 1.8-2.59= Fairly Agree
 1.0- 1.79= Disagree

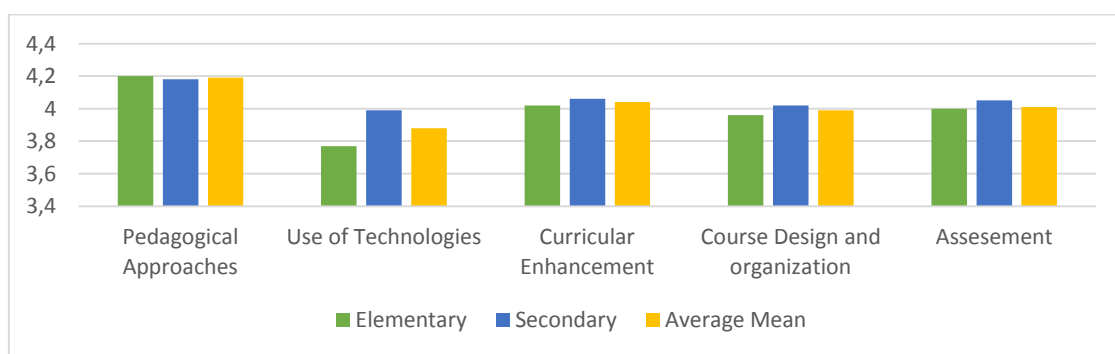


Figure 1 Composite Mean of Response on Educational innovations that have been adopted by the Respondents

Table 4 and figure 1 reveals the composite information of the mean response on educational innovations that have been adopted by the respondents. Data uncover that that use of technology is the least utilized strategy while on the other hand it’s the employment of various pedagogical approaches that ranked first.

Data reveals placing *emphasis on student participation* is a well exercised strategy with an average mean of 4.35 followed by *providing evaluation activity* for the students that merited an average mean of 4.31 , both with a verbal interpretation of very strongly agree. Based on the conducted validation activity, respondents really agree that they consider participation of the students a very important factor in ensuring the teaching-learning situation a success. Accordingly, the more questions students ask the more successful they are in cultivating class participation, while less questions, means less answers and less interest among the students is expected.

Further data asserts that respondents develop their lessons with the use of computers with a mean response of 4.12 that can be verbally interpreted as strongly agree. Respondents according to survey use computers for several reasons like, there some that considers computer as a one stop shop, which means they have all the things needed to develop a good lesson presentation. Based on the data, respondents use computer mostly to develop lessons, and accordingly they use computers for research, to compliment lessons that already in existence. It can like be noted that respondents in both categories utilize power point technology, they also use computer in giving assignments, presenting new lesson and in evaluating students. However, the use of computer in giving assignments received the lowest mean of 3.58. As a result of discussion with the respondents, they claim that their students do not have computers at home, the reason why they do not engaged much in computer based assignments.

Relative thereto, data shows that teachers try their best in exposing their students to new ideas with a recorded average mean of 4.18. To arouse the interest of the students, teachers try to integrate any form of art, related music ad discussion that are culturally based with a recorded average mean of 4.15, while the strategy on localizing examples for better understanding; giving activity-guided problem solving and the connections associated with the relationships that the problem has to the real world likewise received very strongly agree remark with a numerical average mean of 4.13.

Top 3 of the answers as validated in the conducted FGD provides a strong message that teachers try their best to enrich the curriculum that is on hand by providing their students better chance to understand concepts and ideas that are unwritten and yet can be best understood with activities that only those teachers with enough grasp of the subject matter can provide.

Mean of response on educational innovations and creative lesson delivery modalities that have been adopted by the respondents considering course design and organization is explored in table 7. Item on “Teach creative skills explicitly; Imagination, Being disciplined or self-motivated, Resiliency, Collaboration, Giving responsibility to students” and “Alignment of policies to values” received “Strongly Agree” response.

Data shows that respondents do consider the “value component” in terms of working on the course design. As reflected on the data, responses revealed that all respondents rated “strongly agree”. Relative to the result of the survey, respondents are aware on how the course must be designed to mainstream a multi-disciplinary and integrated leaning condition. Anent thereto, respondents strongly agree on looking at students’ school work with an average mean of 4.20.

Relative the findings, though respondents have rated all the rest of the items with “strongly agree”, it can be noted that item on “ePortfolios” and “Personal Success Plan” received the lowest mean. Based on the result of the conducted FGD, these two items were more often times were not given must attention although on occasions were being used. Some respondents even admitted that the item on “Personal Success Plan” is new to them and for that matter needs further training on its implementation.

E. Significant Difference on the Extent of Adoption of two Groups of respondents on the Educational Creative Lesson Execution and Innovations considering the Pedagogical Approaches, Technologies, Curricular Enhancement, Course Design and Organization and Assessment:

Table 5 Significant Difference on the Extent of Adoption of two Groups of Respondents on the Educational Creative Lesson Execution and Innovations considering the Pedagogical Approaches, Technologies, Curricular Enhancement, Course Design and Organization and Assessment

	L			M				
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	Level	Mean	Std. Dev.	Mean Diff.	t	df	sig.	o	I
Pedagogical Approaches	Elementary	.20	.54	.02	0.28	16	.780	R	S
	Secondary	.18	.55						
Use of Technologies	Elementary	.77	.81	.23	.16	16	.032		
	Secondary	.99	.73						
Curricular Enhancement	Elementary	.02	.58	.04	.48	16	.634	R	S
	Secondary	.06	.62						
Course Design and Organization	Elementary	.96	.65	.07	.75	16	.453	R	S
	Secondary	.02	.63						
Assessment	Elementary	.00	.56	.05	.61	13	.546	R	S
	Secondary	.05	.62						

There is no significant difference between the elementary and high school teachers' engagements in terms of employment of various pedagogical approaches, curricular enhancement, course design and organization along with assessment while there is a significant difference on the use of technologies, since the obtained t – values of .78, .634, .453, .546 are greater than 0.05 significance level, hence the null hypotheses are accepted. While on the other hand, on the use or employment of Information Technology, the obtained t value .032 is lower than .05 significance level, hence the null hypothesis is rejected.

Data further reveals that teachers in the secondary level are more adept in the utilization of Information Technology as compared with the teachers in the elementary level.

Data is further supported by the result of the conducted FGD that teachers in the elementary level has less time in preparing power point presentations due to time constraints. Reasons like multiple preparations surfaced when asked for the reason.

F. Significant Difference Between the Extent Of Adoption of Various Creative and Innovative Strategies Considering Pedagogical Approaches, Technologies, Curricular Enhancement, Course Design and Organization and Assessment with Respondents' Profile:

Table 6 Significant Difference Between the Extent Of Adoption of Various Creative and Innovative Strategies Considering Pedagogical Approaches, Technologies, Curricular Enhancement, Course Design and Organization and Assessment with Respondents' Sex:

		S	S	f	S	ig.	o	I
Pedagogical Approaches	Between Groups	159	.5	159	550	459	R	S
	Within Groups	9.400	06	288				
	Total	9.559	07					
Use of Technologies	Between Groups	.435	2	.435	.295	039		
	Within Groups	16.774	1	06	567			
	Total	19.209	1	07				
Curricular Enhancement	Between Groups	737	.7	737	.082	151	R	S
	Within Groups	2.892	06	354				
	Total	3.629	07					
Course	Between Groups		.					

Design and Organization		969		969	.396	123	R	S
	Within Groups	3.310	806	404				
	Total	4.279	807					
Assessment	Between Groups	515		515	.465	228	R	S
	Within Groups	1.375	703	352				
	Total	1.890	704					

Data on table 6 reveals that in terms of sex, there is no recorded significant difference considering the use of innovations in areas like pedagogical approaches, curricular enhancement, course design and organization and assessment since the recorded t values of .59, .151, .123, and .228 are greater than 0.05 significance level, hence the null hypotheses are accepted.

However, in terms of technology employment considering both levels, the recorded t value of .039 is lesser than .05 significance level hence the null hypothesis is rejected. Based on the conducted FGD, there are more female teachers that has the time to prepare power point presentation and use computers in teaching preparations as compared with male.

Table 7 Significant Difference Between the Extent Of Adoption of Various Creative and Innovative Strategies Considering Pedagogical Approaches, Technologies, Curricular Enhancement, Course Design and Organization and Assessment with Respondents' Age

		S	f	S	ig.	o	I	
Pedagogical Approaches	Between Groups	135		034	115	977	R	S
	Within Groups	1.653	09	295				
	Total	1.788	13					
Use of Technologies	Between Groups	.511		.378	.381	053	R	S
	Within Groups	20.953	09	579				
	Total	26.464	13					
Curricular Enhancement	Between Groups	941		235	650	627	R	S
	Within Groups	5.614	09	362				
	Total	6.555	13					
Course Design and Organization	Between Groups	.204		551	.349	253	R	S
	Within Groups	5.408	09	409				
	Total	7.613	13					
Assessment	Between Groups	203		051	140	967	R	S
	Within Groups	4.769	06	363				
	Total	4.972	10					

Table 7 shows the significant difference on the assessment of two groups of respondents on the educational Innovations considering the various aspects in terms of age. Specifically, the result shows that there is no significant difference on the execution of innovation considering the pedagogical approaches, information technology, curriculum

enhancement, course design and organization and assessment with the expressed t values of .997, .053, .627, .253, and .967 respectively that are all greater than .05 significance level, hence, the null hypothesis is accepted.

The result reveals that regardless of age, teachers in both levels employ innovative strategies. The result likewise conveys that young and not so young teachers in both levels employs innovation in teaching considering all areas of concern under study.

Table 8 Significant Difference Between the Extent Of Adoption of Various Creative and Innovative Strategies Considering Pedagogical Approaches, Technologies, Curricular Enhancement, Course Design and Organization and Assessment with Respondents' Highest Educational Attainment

		S	f	S		ig.	o	I
Pedagogical Approaches	Between Groups	.456		291	974	435	R	S
	Within Groups	3.378	12	299				
	Total	4.834	17					
Use of Technologies	Between Groups	.204		.641	.899	015		
	Within Groups	19.988	12	566				
	Total	28.192	17					
Curricular Enhancement	Between Groups	.956		191	523	759	R	S
	Within Groups	7.526	12	366				
	Total	8.482	17					
Course Design and Organization	Between Groups	.204		441	.077	374	R	S
	Within Groups	6.775	12	409				
	Total	8.978	17					
Assessment	Between Groups	.058		612	.768	121	R	S
	Within Groups	2.303	09	346				
	Total	5.361	14					

Table 8 is about the significant difference on the assessment of two groups of respondents on the educational Innovations considering the various aspects in terms of

highest educational attainment in both level. Findings reveal that there is no significant difference on the utilization and employment of innovative strategies considering the educational attainment of respondents with t values of .435, .015, .759, .374, and .121 which are greater than .05 significance level, hence, the null hypothesis is accepted.

Findings further reveals that in terms of the use of technology, the null hypothesis is rejected with the t value of .015 which is less .05 significance level, hence, the null hypothesis is rejected. Educational attainments bears a shade on the capacity of technology application and use among respondents.

G. Best Creative and Innovation Practices adopted by Respondents in terms of evolving goals, description of innovation, underlying philosophy, and context of Innovation:

The following narratives and cases are the result of the conducted observations and FGDs on Best Practices Employed by the Respondents:

Best Creative and Innovative Practice A:

*"I do not use any rewards or a behavior management system in my class. I have written about my reasoning and journey to remove rewards from the class and it really has been a journey. I think it's my personal innovation. I started with sticker charts and a treasure box just like most teachers. I also have used many different forms of behavior charts...The big "light bulb" moment for me was when I realized that **most behavior management systems are a formula of control**. The teacher is the one in control and I want my students to learn up to be in control. **They learn by***

practicing and through mistakes not by being managed. I may have to work a little harder without stickers and treasure kits but in the end the relationships built and ability to customize how I handle every situation has led to a much healthier environment and happier classroom. “We teachers have to be sensitive and patient to help our students in the real sense of the word”.

Best Creative and Innovative Practice B:

*I try to keep everything at eye level for the students. Additionally, I try to **stick with a color scheme that is not distracting**. I believe that a **brain-friendly environment is important to enhance each learner’s potential**. My room has a home feel so that students feel comfortable as soon as they enter. I avoid the fluorescent lighting. Instead, I use the natural light. When it is darker outside, I have several lamps around the room that we use. Our room is not bright but rather has a relaxing and natural color. **The aesthetics help to set the tone for our learning environment.***

Best Creative and Innovative Practice C:

*“I provide open avenues for my students to decide, hence I believe I also give them the chance to manifest their creativity and the same time provide challenge”. Example, I require them to prepare at least 2 visuals in Math considering a specific topic. The term “visuals could be interpreted however they wanted. Whether that was making an art work, poster, bringing items, making items, whatever. **The point of this project was to have fun, share passions, and show how math is everywhere.** The only boundaries are the ones they set for themselves.*

The holding of a Math Fair in our School Garden was one of the unforgettable moment since school garden is not a regular classroom, and school garden is equated with a more relaxed mood, the pupils were very relaxed and comfortable. It was part of their grade. I feel it’s important to have things like this that kids were notified of over a month in advance that they have to attend. Out of my 50 current pupils, only 3 did not show up (and we had over 50 adults in attendance). For my area, and how rural we are, those were GREAT numbers.

The very simple affair was uploaded in the You tube and our entire school were so excited in viewing the activity. I personally feel that we were able to move on the next level. The next process, the uploading of the activity in the you tube served as an invitation for the parents who failed to attend and they became more interested.

Best Creative and Innovative Practice D:

*In our class, we don’t care much about grades. We don’t care much about who’s better than whom. We care about working together to become the strongest “Me” we can each become. **We welcome people’s opinions about our work, because when someone takes the time to give us their opinion (even when it’s negative), they are helping us improve in some way.** And our goal is constant improvement! We don’t care where we start from – we care where we finish. We don’t care who is performing better than us. We care that we are performing to our highest level possible!*

*One of my innovation is to allow my pupils to watch each other’s Passion Posters and listen to everyone’s interpretation. Everyone is required to do so with a critical eye – one that looks for things that could be improved. We aren’t going to act judgmental where we sound like we know everything and others know nothing. We won’t put anyone down or make anyone feel stupid. We are going to identify areas where our peers can improve to help them be the best that they can be. We will call our **critical feedback, “Quality Boosters,” because our goal will be to boost the quality of each others’ Passion Projects!***

How we run our classrooms directly affect how students feel about themselves. How they feel about their own capabilities and their own intelligence. I fail all the time in front my kids, not on purpose, I try stuff and it doesn’t work and we talk about it. And yet, I am not perfect either. I catch myself in using practice problems as assessment, where really they should be viewed just as practice. I praise the kids that get it right and sometimes don’t praise the ones that kept persisting but never reach a correct answer. I don’t always have enough time to explore all of the options so I guide the kids toward success knowing that some venues will lead them to failure. I shield them from it sometimes because I don’t want to crush their spirits.

*We have to stand up for our children and we have to turn this notion around that failure is the worst thing that can happen. Failure is not the worst; not trying is. **We have to keep our kids believing in themselves and having enough confidence to try something.** If we don’t we are raising kids that follow all of the rules, that never take risks, that never discover something new. And that failure is too big to remedy.*

Best Creative and Innovative Practice E:

*Videos are traditionally linear and directive. In the classroom, videos are designed to either dispense information or teach the viewer a new skill. However, great lessons are rarely passive. Using the annotations feature in YouTube, teachers can create videos that require participation. At its most basic, students are given four choices, and they select the correct answer. If an incorrect choice is made, students watch a new video that reteaches the concept. **If the correct choice is made, the initial video links a new video that shows the next step, or the next problem. Going deeper, the first video can link to several choices, and each of those choices can link to several choices.***

Best Creative and Innovative Practice F:

*The concept is simple: **a class meeting. That’s it. Seemingly, it’s nothing groundbreaking. But, like anything, it’s all about how you frame the learning that makes it so powerful.***

*As an aside, I purposefully set up a lot of unfair and unstructured environments in my classroom that allow students to design the rulings within the space. For example, the job chart is a hot mess of disorganization in September, there is no set regulations on turn-taking in our classroom comfortable reading space, and there is certainly no order as to who gets the high honour of turning off the lights when we leave the classroom. These are things that are very important in the eyes of my students as they can cause social duress... Small people, small fights. **So I use Class***

Meeting as a place for my students to govern their own school experience. The activity is designed to allow them to make rules within the classroom to help it run more effectively. These can include regulations that may positively impact their safety, learning, or social experience. My students run the Class Meeting session completely from start to finish. I model this at the beginning of the school year by using a loose framework of Robert's Rules of Order.

Best Creative and Innovative Practice G:

The Parent Camp experience, by design, is a hybrid “un-conference” opportunity for parents and teachers to come together and model cooperation for the learners . Beyond the cooking for free lunch for the kids, the experience levels the playing field, putting all stakeholders in a circle for actual, face-to-face discussion about what is best for kids. It's important to understand the difference between a traditional conference and the un-conference feel we worked to bring to Parent Camp. In the parent camp, every adult within the session brings an important and unique perspective to contribute to sharing strategies and ideas to benefit student learning, teaching and parenting.

Best Creative and Innovative Practice H:

Teaching with a sense of humor is my best innovation. **With sense of humor**, a teacher can best generate positive response from the pupils. Pupils in like manner are encouraged to answer and provide their feedbacks.

Best Innovation Practice I:

As a teacher I rather engage my students in **MNEMONICS WORDS- WORDS WORDS APPROACH.** Here the teacher is not supposed to talk on a particular concept for a quite long time. But to make it clear to the students he can just go on saying mnemonics or its associated meaning in words. Here he goes on saying only words instead of sentence, and once they come to a basic understanding of the meaning of a particular concept then the teacher will explain in sentences. For example in teaching language courses this technique can be used as an effective medium by the teacher to develop word power.

Best Creative and Innovative Practice J:

Some lessons are best learned, when they are taught outside of the classroom. Organize field trips that are relevant to the lessons or just simply take students for a walk outside of the classroom. The children will find this fresh and exciting and will learn and remember the things taught faster. Role playing is most effective for students of almost any age group. You just **need to customize depending on the age group.** You can even use this method for teaching preschoolers; just make sure you keep it simple enough to capture their limited attention span.

Best Creative and Innovative Practice K:

Requiring the student to “Think of a new hobby” makes my lesson more interesting. I usually start the lesson posing an inquiry on their new hobby and I try link their responses to the topics on hand.

Best Creative and Innovative Practice L:

Introducing the lesson like a story made me feel that I innovate some portions of the traditional topics and make my students engage in an extra ordinary feeling of being involved. Just think, why do you watch movies with much interest? You like to watch movies because there is always an interesting story to keep you engaged. Like that, learning sessions become more interesting when you introduce it like a story. If you are creative even math lessons can be related to interesting stories.

Best Creative and Innovative Practice M:

Project Based Learning supports teachers in developing authentic learning experiences with a focus on inquiry-based instruction. Content is key, so I recommend outlining flexible project guides evaluated through learning standards within the STEM (science, technology, engineering, and mathematics) subjects. For example, the traditional community helpers project can extend beyond the policeman, firefighter, and grocer careers by focusing on a marine biologist, astronaut, civil engineer, or architect. Then align the project guides to relevant community partners and request that they provide you with authentic problems to solve. **You can guide or assist professional project partners to ensure the creation of age-appropriate questions with a focus on community impact. Align each project with a greater good by allowing young students to be change agents within their local communities.**

Best Creative and Innovative Practice N:

Provide Opportunities for Student-Centered Constructionism . Turn your classroom into a mini-makerspace, as it abounds with DIY materials. **Engage students in the design process by creating a visual poster about design steps. Include the following steps:**

Think it, Dream it, Plan it, Share it, Make it.

The title of the poster? **Innovate!** Add age-appropriate DIY materials including felt and plastic needles, wood for sanding, wood glue, and simple electronics to spark innovation. The most valuable supplies are often free -- a recycling drive with families can result in a plethora of great materials. You will be amazed at the creatures that are imagined and constructed. **Let it be self-directed project!.**

Matrix of Best Practices:

Best Practice/s	Evolving Goal	Description	Underlying Philosophy	Context of Creativity	Context of Innovation
	Gain	Removal of	Behavior	Customization	The

	<i>class control; Develop a healthy and happy environment for learners</i>	<i>material rewards; and ability to customize and handle every situation ; use many different forms of behavior charts</i>	<i>management systems are a form of control</i>	<i>n of class control</i>	<i>kids must learn to be in control since the Teacher must have the control; Learners learn by practicing and through mistakes not by being managed.</i>
	<i>Create a comfortable classroom for the students</i>	<i>Generate a room with a home feel so that students feel comfortable</i>	<i>Brain-friendly environment is important to enhance each learner's potential Aesthetics help to set the tone for our learning environment.</i>	<i>Utilization of color scheme as environment enhancer</i>	<i>Keep everything at eye level for the students stick with a color scheme that is not distracting</i>
	<i>To provide a fun and worth sharing learning experience</i>	<i>The holding of a Math Fair in School Garden since school garden is not a regular classroom, and school garden is equated with a more relaxed mood where the pupils feel very relaxed and comfortable.</i>	<i>Learning is fun and enjoyable in a comfortable environment</i>	<i>Maximization of local environment as lesson venue enhancer</i>	<i>Holdi ng of a Math Fair in the School Garden with Parents Uploa ding of the activity in the You Tube</i>
	<i>To boost peer's ego and self confidence</i>	<i>Watch each other's Passion Posters and listen to everyone's interpretation. Watch posters with a critical eye – one that looks for things that could be improved. Identify areas where peers can improve to help them be the best that they can be. We call the activity our critical feedback, "Quality Boosters," because the goal is to boost the quality of each other's' Passion Projects</i>	<i>Working together to become the strongest "Me" Keep kids believing in themselves and having enough confidence to try something. How we run our classrooms directly affect how students feel about themselves.</i>	<i>Responsibility build up in enhancement of peers self esteem</i>	<i>How we run our classrooms directly affect how students feel about themselves. How they feel about their own capabilities and their own intelligence, try stuff and it doesn't work and we talk about it.</i>
	<i>Maximiz e active learners' engagement thru the active sensory engagement</i>	<i>Using the annotations feature in YouTube, teachers can create videos that require participation</i>	<i>Videos are traditionally undeviating and highly directive. Videos are intended to either earmark information or explain to the learner a new skill.</i>	<i>IM utilization and concept process development thru available video on line</i>	<i>Stude nts are given four choices, and they select the correct answer. If an incorrect choice is</i>

					made, students watch a new video that reteaches the concept. If the correct choice is made, the initial video links a new video that shows the next step, or the next problem. Going deeper, the first video can link to several choices, and each of those choices can link to several choices.
	<i>To develop learning that is powerful for the enhancement of learners' engagement</i>	<i>Purposefully set up a lot of imbalanced and unstructured surroundings in the classroom that allow students to design their own policies, hence empowerment is developed</i>	<i>The activity is designed to allow learners to make rules within the classroom to help it run more effectively. These can include regulations that may positively influence their well-being, education, or societal familiarity.</i>	<i>Teachers' role in classroom management is shared among the students</i>	<i>Class Meeting as a place for learners to govern their own school experience.</i>
	<i>To maximize parents'/guardians' engagement to achieve quality learning</i>	<i>Putting all stakeholders in a ring for actual, face-to-face chat about what is best for kids. Every adult within the session brings an important and unique perspective to contribute to sharing strategies and ideas to benefit student learning, teaching and parenting.</i>	<i>It's imperative to understand the difference between a traditional conference and the un-conference feel in bringing together some issues and concerns that needs attention.</i>	<i>Maximization of Stakeholders involvement in the learning process</i>	<i>The Parent Camp experience, by design, is a hybrid "un-conference" opportunity for parents and teachers to come together and model to learners that cooperation in any activity is essential</i>
	<i>To develop a comfortable learning atmosphere</i>	<i>Teaching with a sense of humor is one of the best innovation.</i>	<i>Generation of active response from learners. Humor is injected in the explanation and related process.</i>	<i>Humorous manner of lesson delivery for lively class</i>	<i>With sense of humor, a teacher can best generate positive response from the pupils. Pupils in like manner are encouraged to answer and</i>

					<i>provide their feedbacks.</i>
	<i>To develop remember concepts and for the enhancement of learners' retention</i>	<i>The teacher provides the concept, the learners think of significant words they are most comfortable in remembering.</i>	<i>Engagement of the learners with the use of enjoyable mnemonics-word-words activity</i>	<i>Association and thinking of significant words wherein students are most comfortable in remembering</i>	<i>Many learners find it hard and stressing to remember concepts, mnemonics can help stretch out the memory</i>
	<i>To provide an non traditional learning experience leading to the enhancement of students learning</i>	<i>Organize field trips that are relevant to the lessons or just simply take students for a walk outside of the classroom.</i>	<i>Customized Field trips and Role playing is most effective for students of almost any age group. You just need to customize depending on the age group.</i>		<i>Some lessons are best learnt, when they are taught outside of the classroom.</i>
	<i>To create an encouraging launching of the lesson..</i>	<i>Requiring the student to "Think of a new hobby"</i>	<i>The activity makes the lesson more interesting via linking of what the students' know, and how their knowledge is related to topic on hand.</i>	<i>Link responses to the topics on hand. Start the discussion with what interest them most</i>	<i>Starting the lesson posing an inquiry on new hobby of the learners make them realize that they are appreciated and try link their responses to the topics on hand.</i>
	<i>To develop a comfortable way of launching a new lesson to maximize learners' interest.</i>	<i>Introducing the lesson like a story can make a teacher feel some extent of innovation due to the difference in the presentation of some traditional topics and make my students engage in an extra ordinary feeling of being involved.</i>	<i>Starting the lesson with the subject that best interest the learner can bring about good outputs.</i>	<i>Begin with a relaxing inquiry and link the topic to the topic that will be discussed.</i>	<i>Starting the lesson with zero knowledge among learners can make the atmosphere stressing and boring on the part of the learners. This is a challenge that every teacher has to face.</i>
	<i>To achieve authentic learning experience.</i>	<i>Project Based Learning supports teachers in developing authentic learning experiences with a focus on inquiry-based instruction.</i>	<i>Align the projects to relevant community partners and request that they provide authentic problems to solve. Guide or assist professional project partners to ensure the creation of age-appropriate questions with a focus on</i>	<i>Alignment of each project with a greater good by allowing young students to be change agents within their local communities.</i>	<i>Learning must be contextualized. Learning must not be far with how the community where the learners live.</i>

			<i>community impact.</i>		
	To enhance students' learning by engaging student in self-directed activities.	Provide Opportunities for Student-Centered Constructionism. Turn classroom into a mini-maker space, as it abounds with DIY materials.	Engage students in the design process by creating a visual poster about design steps. Include the following steps:	Maximize students' interest in doing something	Learning can be more effective if it is self-directed. Think it, Dream it, Plan it, Share it, and Make it.

In summary here are the assessed best teaching creative and innovative practices :

1. Most behavior management systems are a form of control. The teacher is the one in control and I want my kids to learn to be in control. They learn by practicing and through mistakes not by being managed.
 2. Stick with a color scheme that is not distracting. A brain-friendly environment is important to enhance each learner's potential. The aesthetics help to set the tone for our learning environment.
 3. The term "visuals could be interpreted however they wanted. Whether that was making a poster, bringing items, making items, whatever! The point of this project was to have fun, share your passions, and show how math is everywhere. The only boundaries were the ones you set for yourself!
 4. The holding of a math Fair in our School Garden was one of the unforgettable moment .The very simple affair was uploaded in the You tube and our entire school were so excited in viewing the activity.
 5. We welcome people's opinions about our work, because when someone takes the time to give us their opinion (even when it's negative), they are helping us improve in some way.
 6. Watch each other's Passion Posters and listen to everyone's interpretation. We call our critical feedback, "Quality Boosters," because our goal will be to boost the quality of each other's' Passion Projects!
 7. How we run our classrooms directly affect how students feel about themselves. How they feel about their own capabilities and their own intelligence.
 8. We have to stand up for our children and we have to turn this notion around that failure is the worst thing that can happen. Failure is not the worst; not trying is. We have to keep our kids believing in themselves and having enough confidence to try something.
 9. Videos are traditionally linear and directive. In the classroom, videos are designed to either dispense information or teach the viewer a new skill. However, great lessons are rarely passive. Using the annotations feature in YouTube, teachers can create videos that require participation.
 10. The holding of a class meeting. That's it. Seemingly, it's nothing groundbreaking. But, like anything, it's all about how you frame the learning that makes it so powerful.
- As an aside, I purposefully set up a lot of unfair and unstructured environments in my classroom that allow students to design the rulings within the space.*
- So I use Class Meeting as a place for my students to govern their own school experience.*
- 11.The Parent Camp experience, by design, is a hybrid "un-conference" opportunity for parents and teachers to come together and model the four core beliefs highlighted in Beyond the cooking for free lunch for the pupils.
 12. Teaching with a sense of humor is my best innovation.
 13. I rather engage my students in MNEMONICS WORDS- WORDS APPROACH.
 14. Some lessons are best learnt, when they are taught outside of the classroom.
 15. Requiring the student to "Think of a new hobby" makes my lesson more interesting.
 16. Introducing the lesson like a story made me feel that I innovate some portions of the traditional topics and make my students engage in an extra ordinary feeling of being involved.
 - 17.Project Based Learning supports teachers in developing authentic learning experiences with a focus on inquiry-based instruction.
 18. Guide or assist professional project partners to ensure the creation of age-appropriate questions with a focus on community impact.
 - 19.Align each project with a greater good by allowing young students to be change agents within their local communities.
 - 20.Provide Opportunities for Student-Centered Constructionism . Turn your classroom into a mini-makerspace.
 21. Engage students in the design process by creating a visual poster about design steps. Include the following steps: Think it, Dream it, Plan it, Share it, Make it.

H. Perceived Influence of Educational Innovations and Creative modalities on the quality of academic service delivery :

Table 9 Composite Table on Perceived Influence of Educational Innovations Creative Modalities on the Quality of Academic Service Delivery

Aspect	Elementary		Secondary	
	Mean	I	Mean	I
Aspect: Pedagogical Approaches	.17	A	.33	SA
Aspect: Use of Technologies	.08	A	.25	SA
Aspect: Curricular Enhancement	.13	A	.27	SA
Aspect: Course Design and Organization	.11	A	.24	SA
Aspect: Assessment	.21	SA	.26	SA
Average	.14	A	.27	SA

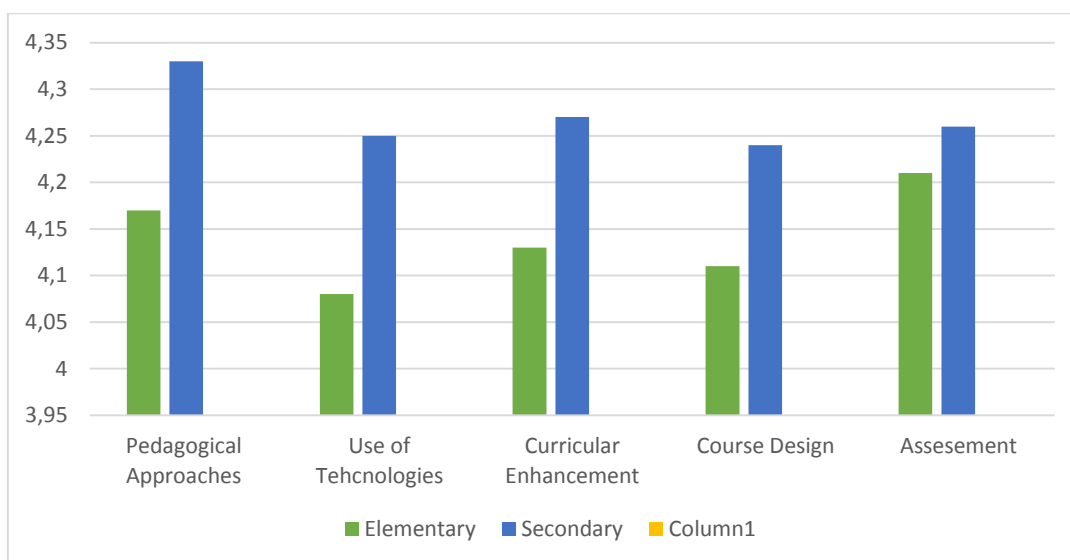


Figure 2 Composite Table on Perceived Influence of Educational Innovations on the Quality of Service Delivery

The composite table on perceived influence of educational innovations on the quality of service delivery asserts that the aspect on pedagogical approaches merited the highest average mean in both levels while it can likewise be noted that assessment on the part of elementary level received the highest average mean as compared with the secondary level.

The result reveals that with the employment of various pedagogical approaches such as the shifting strategies to suit the needs of the learners, localizing the concepts for better understanding of the examples, reinventing apparatus/equipment with what can be made available, encouraging democratic habits among students, making students participate in class, evaluating the performance of students, compiling learning resources/Instructional materials and if time permits the teacher writes manual/book, the strategies bring about greater appreciation on the part of the students. However, though all of the given items received and were rate very satisfactory by the respondents, “facilitated enhanced outputs” received the lowest mean.

Data further shows that the strategy increase the motivation to learn which received the highest mean average of 4.38 followed by understanding of the topics discussed with a mean average of 4.35. However, the weakness of the students identified, received the lowest average mean of 4.14.

Result also shows that the engagement resulted into greater appreciation on the part of the students with an average mean of 4.34 with students’ capacity to understand that ranked least with an average mean of 4.16.

Data asserts that the engagement seems to be facilitative on the part of the teachers with a mean average of 4.27, on the other hand, appreciation of the part of the students though it likewise merited VSA rating was rated lowest among the given.

Data likewise shows that the engagement is facilitative on the part of the teachers with the average mean of 4.32, while on the other hand, students’ capability to understand instruction merited the lowest among the items given.

I. Significant Difference on the Perceived Influence of Two groups of Respondents on Educational innovations on the quality of service delivery considering the various aspects

Table 10
Significant Difference on the Perceived Influence of Two Groups of Respondents on Creative and Innovative Educational Modalities on the Quality of Service Delivery Considering the Various Aspects

	Level	Mean	Std	Mean Diff.	F	Sig.	Post Hoc	I
Pedagogical Approaches	Elementary	.17	.57	0.16	.04	.11	.042	
	Secondary	.33	.58					
Use of Technologies	Elementary	.08	.60	0.17	.06	.11	.041	
	Secondary	.25	.63					
Curricular Enhancement	Elementary	.13	.53	0.14	.73	.11	.085	R S
	Secondary	.27	.64					
Course Design and Organization	Elementary	.11	.58	0.14	.58	.11	.117	R S
	Secondary	.24	.66					
Assessment	Elementary	.21	.61	0.05	.60	.10	.550	R S
	Secondary	.26	.68					

Table 10 is about the significant difference on the perceived influence of two groups of respondents on educational innovations on the quality of service delivery considering the various aspects like pedagogical approaches, use of technologies, curricular enhancement, course design and organization and assessment aspects in terms on the level of teaching assignment of the respondents' as to whether they are engaged in the elementary or secondary level.

In terms of pedagogical approaches and use of technologies, the result reveals that there is significant difference of the since .042 and .041 values is less than the .05 significant level, hence the hypothesis is rejected.

However, in terms of curricular enhancement, course design and assessment, result reveals that is no significant difference on the result, hence the hypotheses is accepted.

I. Significant Difference on the Perceived Influence of Two groups of Respondents on Educational innovations and creative modalities on the quality of service delivery considering the various aspects and the Respondents' Profile

Table 11
Significant Difference on the Perceived Influence of Two groups of Respondents on Educational innovations on the quality of service delivery considering the various aspects and the Respondents' Sex

		S	f	S	ig.	o	I
Pedagogical Approaches	Between Groups	001		001	004	950	R S
	Within Groups	8.484	01	341			
	Total	8.485	02				
Use of Technologies	Between Groups	165		165	435	510	R S
	Within Groups	6.066	01	378			
	Total	6.230	02				
Curricular Enhancement	Between Groups	023		023	065	798	R S
	Within						

	Groups	1.186	01	354				
	Total	1.209	02					
Course Design and Organization	Between Groups	.006		006	014	906	R	S
	Within Groups	1.191	01	404				
	Total	1.196	02					
Assessment	Between Groups	.019		019	045	832	R	S
	Within Groups	4.308	01	419				
	Total	4.327	02					

Significant Difference on the perceived influence of two groups of respondents on educational innovations on the quality of service delivery considering the various aspects and the respondents' sex is shown in table 11.

The result of the study asserts that there is no significant difference considering the pedagogical approaches, use of technologies, curricular enhancement, course design and organization and assessment aspects in terms of the respondents' sex.

Outcome of the conducted focused discussion reveals sex does not matter in terms of innovation adoption since it is the respondents' experience that dictates them on when and how they will innovate.

Table 12

Significant Difference on the Perceived Influence of Two groups of Respondents on Educational innovations and creative execution on the quality of service delivery considering the various aspects and the Respondents' Age

		S	f	S		ig.	o	I
Pedagogical Approaches	Between Groups	.497		124	377	825	R	S
	Within Groups	7.323	04	330				
	Total	7.820	08					
Use of Technologies	Between Groups	.933		483	.272	282	R	S
	Within Groups	7.492	04	380				
	Total	9.425	08					
Curricular Enhancement	Between Groups	.611		653	.864	118	R	S
	Within Groups	1.456	04	350				
	Total	4.067	08					
Course Design and Organization	Between Groups	.458		615	.568	184	R	S
	Within Groups	9.943	04	392				
	Total	2.402	08					
Assessment	Between Groups	.395		599	.434	224	R	S
	Within Groups	4.746	03	417				
	Total	7.141	07					

Table 12 is about the significant difference on the perceived influence of two groups of respondents on educational innovations on the quality of service delivery considering the various aspects and the respondents' in terms of the respondents' age.

The result of the study asserts that there is no significant difference considering the pedagogical approaches, use of technologies, curricular enhancement, course design and organization and assessment aspects in terms of the respondents' age.

Outcome of the conducted focused discussion reveals age does not matter in terms of innovation adoption since it is the respondents' experience that dictates them on when and how they will innovate.

Table 13

Significant Difference on the Perceived Influence of Two groups of Respondents on Educational innovations and creative execution on the quality of service delivery considering the various aspects and the Respondents' Highest Educational Attainment

		S	f	S		ig.	o	I
Pedagogical Approaches	Between Groups	.248		650	.991	081	R	S
	Within Groups	7.541	07	326				
	Total	0.789	12					
Use of Technologies	Between Groups	.807		761	.034	075	R	S
	Within Groups	7.484	07	374				
	Total	1.291	12					
Curricular Enhancement	Between Groups	.967		393	.091	366	R	S
	Within Groups	4.628	07	361				
	Total	6.595	12					
Course Design and Organization	Between Groups	.592		518	.296	267	R	S
	Within Groups	2.779	07	400				
	Total	5.371	12					
Assessment	Between Groups	.557		311	.726	605	R	S
	Within Groups	8.399	06	429				
	Total	9.956	11					

Table 13 is about the significant difference on the perceived influence of two groups of respondents on educational innovations on the quality of service delivery considering the various aspects and the Respondents' in terms of the respondents' highest educational attainment.

The result of the study asserts that there is no significant difference considering the pedagogical approaches, use of technologies, curricular enhancement, course design and organization and assessment aspects in terms of the respondents' educational attainment.

Outcome of the conducted focused discussion reveals educational attainment does not matter in terms of innovation adoption since it is the respondents' experience that dictates them on when and how they will innovate.

K. Assessed essential conditions for the sustainability of classroom creativity and innovation:

Based on the conducted interviews, FGDs and the result of the survey, the following are the assessed essential conditions for the upkeep of the sustainability of classroom innovation:

1. Teacher's Roles

Most fundamental to sustaining an innovation is teacher support, for without this, the innovation simply cannot occur. All of the cases studied and cited clearly manifests instances of how supportive teachers were of their classroom innovations. In the result of the conducted FGD with the School Heads all of them agreed on the fact that "the key to the sustainability of the innovation is the teachers, their willingness and readiness to take part." In addition, the School

Heads observed a certain degree of commitment among teachers as they become “hooked” on their respective innovation. School Heads saw this form of commitment as one that will even transcend shortfalls in resources. Teachers involved in the study tended to express their views on the value of their innovations in terms of the how it affects their students. What seems to make teachers commit to an innovation according to the conducted interviews the professional and personal satisfaction teachers derived from being able to teach in what they found to be a more meaningful and effective manner, and from seeing the positive impact their work was having on students. Result of FGDs further revealed the positive attitude of teachers as an essential element of sustainability as well. On many occasions along the interview process, teachers were cited as being “enthusiastic about the innovation,” had taken ownership of it.

2. Student Support

Students are often neglected in the school reform literature even though they are the entire reason why schools exist! The Result of the conducted FGD dramatically illustrates the essential role student’s play in motivating teachers to sustain an innovation. Student support—and indeed enthusiasm—for the local innovation played an essential role in motivating teachers to continue to carry out and improve the innovation. Teachers want to do what is best for students to enhance their learning. If they believe that students are benefiting from and are supporting a particular innovation, they in turn will be more inclined to devote the additional time and effort required to maximize the advantages brought on by the innovation. [4] provides a plausible explanation for this phenomenon in terms of teacher intrinsic rewards. Metz argues there are so few extrinsic rewards gained by merit or persistent effort in teaching that teachers turn to intrinsic rewards for establishing job satisfaction. The most influential intrinsic reward comes from student cooperation and success. Therefore, teachers are bound to invest time and effort into activities that lead to student accomplishment.

3. Administrative Support

Support from the school principal is another essential factor that contributes to sustainability. The assertion was based on conducted FGDs and consistently reiterated by the subjects. Of special note is that no principals resisted nor discouraged the innovation in their school. This is perhaps not too surprising because if the principal did not at least tacitly approve of the innovation it would be very difficult for it to flourish in the school. It suggests that, as a minimum, principals play a “gatekeeper” kind of role in sustaining the innovation by approving of its existence and not undermining it. The notion of the principal playing a gatekeeper role is regarded as being inadequate in current leadership literature [3]; nevertheless, the data suggest that sustainable reform can occur when principals assume that role.

4. Related Contributing factors

More diffuse are the contributing conditions for sustaining an innovation. As a result of the assessment, the researcher identified contributing conditions such as internal and external support, funding, innovation champions and developed/crafted policies that push innovation in classroom setting.

L. Sustainable Classroom Creativity and Innovation Framework:

The researcher identified three basic conditions supporting innovations in classroom such as the teacher, student and administrator’s as essential characters. These three pillars are directly connected and must support each other to ensure quality innovation result. Further, four contributing factors were identified to complete the framework. Support for the innovation from others *within the school and external to the school* are two of the conditions. Inside support may *come from other teachers not directly involved in the innovation, whereas outside support may come from peers, parents, school district officials, municipal leaders, or Department of Education personnel*. Both groups of actors tend to provide recognition and validation of a teacher’s efforts. Most innovations seem to have a “champion,” an individual who provides leadership and direction to the initiative so that it is sustained. The innovation teacher may be the champion, or it may be a technology coordinator, another teacher, or the principal. **Funding** plays a hand in sustaining innovations, too. Many innovations are provided with extra start-up funds, and when this funding is inevitably withdrawn, the stronger innovations tend to survive when the essential conditions for sustainability are met. The final contributing condition for sustainability is the *presence of school, school district, or national policies and plans that support the innovation*. While many innovations function successfully in the absence of policies or plans, those that have a supportive framework are more likely to endure according to the researcher’s analysis. As revealed in the FGDs, National technology policies and plans that provide special funding for hardware, software, school network infrastructure, and teacher professional development were more closely linked to sustainable innovations than other types of more general educational policies.

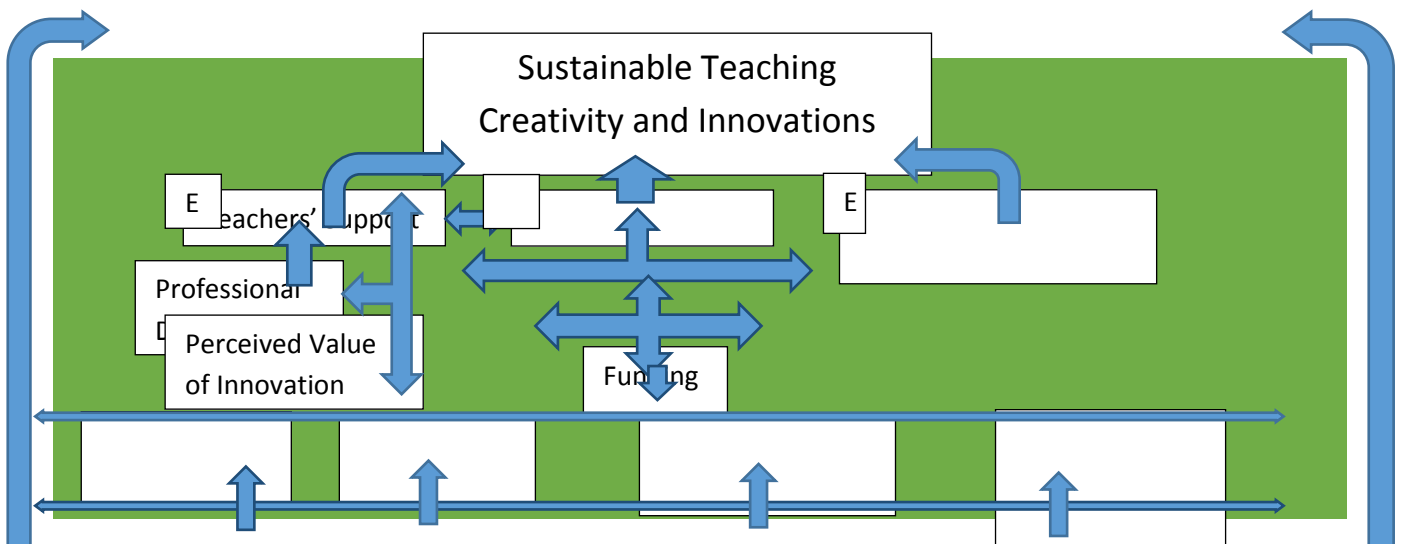


Figure 2: Framework on Sustainable Creativity and Innovations in Teaching

5. Findings

The following are the findings of the study:

1. Majority of the respondents are female, belonging to age bracket 30-39 years of age, majority are already in the stage of earning the doctoral degree for those teaching in the secondary level while masters' degree for the elementary level teachers. Considering the length of service in public school of both clusters, majority have stayed for 1-5 years in the service, permanent in the service and are in the Teacher 1/ Secondary School Teacher 1 status.
2. The desire of the teachers to encourage participation followed by giving inspiration and making high-quality participation "count" while conduct of session assessments ranked least among the stated reasons.
3. Placing emphasis on student participation is a well exercised strategy followed by providing evaluation activity for the students.
4. Writing a manual/book and inventing apparatus/equipment with what can be made available are the least adopted practices in terms of innovations.
5. Least utilized modalities are using ICT in giving assignments on line, adding self-developed activities to enhance the students' learning, Integration of emotional connections in teaching, giving hands-on projects that focus on empathy, promoting a bias toward action, encouraging ideation and fostering active problem-solving, designing the day around discovery of information and connections to real world challenges. Further, discussions digging into ones experiences with the world, utilization of creativity model and use a cultural artifact are also not so popular utilized.
6. Students school work checking is the most popular form of assessment while the use of badges and points ranked least.
7. Blended learning is least popular in terms of course organization development.
8. Identified three basic conditions supporting innovations in classroom are the teacher, student and administrators as essential characters. These three pillars are directly connected and must support each other to ensure quality innovation result.
9. Identified are four contributing factors to complete the framework in support of innovation that are within *the school and external to the school* conditions. Most innovations seem to have a "champion," an individual who provides leadership and direction to the initiative so that it is sustained. *Funding* plays a hand in sustaining innovations, too. The final contributing condition for sustainability is the *presence of school, school district, or national policies and plans that support the innovation.*

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