



## TEACHING STRATAGEM DATABASE: AN EFFICACY PROMULGATION OF INSTRUCTIONAL APPROACHES IN SDO BATANGAS PROVINCE

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### ABSTRACT

*The teachers have a very challenging job as are entrusted with so many responsibilities that range from the very simple to most complex. As being the focal figure in education, they must be competent and knowledgeable to impart the knowledge they could give to their students. Every day, teachers meet challenges as part of the work or mission that they are in. It is very necessary that they need to understand the inevitability to be motivated in doing their works well, to have motivated learners in the classroom. When students are motivated, then learning will easily take place. In this manner, this study sought to fulfill the objectives of distinguishing general effectuality of the instructional approaches used by the Senior High teachers in SDO Batangas Province as well as the instructional approaches favored by teachers and students to be the best and the most effective instructional approach suitable to the Senior High Learners in selected Content Areas common to all tracks offered in the division. Moreover, the researchers used mixed method correlational designs that examined the roundup among the instructional approaches commonly used by the Senior High teachers and the professed instructional approaches by the students that would ascertain the least effective to the most effective instructional approaches that would eventually be adopted by the whole teaching force. The study revealed that Experiential Learning Instructional approach commonly used by the Teachers is the most effective instructional approach and the least effective of all is Learning by Teaching. Also, the top three (3) instructional approaches that excelled and were discovered to be effective as professed by the students -respondents used in the selected content areas are Experiential Learning, Active Learning and Demonstration. Meanwhile, Integrating Technology, Learning by Teaching, Case Method and Lecture/ Discussion were the last in the list of Instructional approaches professed by the students. It was divulged in the study that there was no significant difference among the Instructional approaches used by the teachers and the Instructional approaches in different content areas. Lastly, a Teaching Stratagem Database, a website of instructional materials, would be proposed to mentor and coach teachers on the utilization of effective instructional approaches for these specific learners to enhance and develop the teachers' instructional approaches used in their respective classrooms.*

*Keywords: instructional approaches, senior high school, Teaching Stratagem Database*

### INTRODUCTION

Teachers must be competent and knowledgeable in order to impart the knowledge they could give to their students. They need to understand the inevitability to be motivated in doing their works well, to have motivated learners

in the classroom. When students are motivated, then learning will easily take place. With this, teachers must recognize the diversity and complexity in the classroom, be it the ethnicity, gender, culture, language abilities and interests.

**P – ISSN 2651 - 7701 | E – ISSN 2651 – 771X | [www.ioer-imrj.com](http://www.ioer-imrj.com)**

BASILAN, M.L.J. C., GONZALVO, B. C., *Teaching Stratagem Database: An Efficacy Promulgation of Instructional Approaches in SDO Batangas Province*, pp.63 – 74



By all of these diverse characteristics, teachers must motivate students to go to school and pursue for their future.

However, to motivate students to learn, teachers must play a difficult role. To get students' interests, one must use multiple instructional methods. Above all, the teacher must possess adequate knowledge of the curriculum objectives, teaching skills, interests, and appreciation. Effective learning in the classroom depends on the teacher's ability to maintain the students' attention in the first place ((Barberos, Gozalo, & Padayogdog, 2018).

On the other hand, teachers as well have distinct styles and expressions of teaching. They expect that education is interactive and spontaneous; teachers and students work together in the teaching-learning process; students learn through participation and interaction; homework is only part of the process; teaching is an active process; students are not passive learners; factual information is readily available; problem solving, creativity and critical thinking are more important; teachers should facilitate and model problem solving; students learn by being actively engaged in the process; and teachers need to be questioned and challenged. As stressed in the Educator's Diary published in 1995, "teaching takes place only when learning does." Although she might think of other factors, however, emphasis has been geared towards the effect of teacher's instructional approaches and student motivation to learn.

Now, the recent transformation in the educational system of the Philippines was administered starting 2011. During 2013, President Aquino signed the K-12 education into law, adding three (3) years to the country's basic curriculum (Uyquiengco, 2013). Its goal is to develop and improve the basic skills of the learners and to produce more competent workers and citizens(K-12 Philippines, 2013). To make these goals possible and for students to be well-prepared to the challenges that they will face after high school as they make their step into the world of reality, it is up to the people that will guide them to ensure that they will be ready for the real life's battle.

Because of this, some experts and educators offer guidance on how to get education closer to those who seek it. in teaching and learning, methods of teaching are methods for guiding students so they can successfully finish and achieve the objectives and goals of the lesson (Lanuzo, 2015). Furthermore, these methods help students to develop achievable objectives and learn the desired course contents are known as Instructional approaches Instructional approaches outline different accessible and acquirable learning approaches so they can help students better understand the target learners. The bridge for effective instruction is built by measuring the aptitude and potential of students and of course, assessing the best methods to maximize students' learning potential.

An approach is good if the principles of learning are used and if it allows or lets the operation of these principles. Also, if it utilizes the principles of "learning by doing", then it is indeed a worthy approach. Stimulating critical thinking and reasoning, and providing growth and development are definitely another style that makes a point (Armstrong, 2013).

It is undeniable that various ways on how to handle and teach students exist in this modern era. With technology everything is easier especially when it comes to teaching. Teachers just must look for and discover the suitable approach that he can provide his learners.

In this manner, the research, Teaching Stratagem Database: An Efficacy Promulgation of Instructional Approaches in SDO Batangas Province, is considered significant to the school, SDO Batangas Province, as it provides facts and reliable information and credible sources which is very authentic in the locale's context. This would help the principal and the school administration to promote, develop and enhance instructional and pedagogical approaches through teaching evaluations which could result to higher level of learning attainment.

In addition, it is also vital to the Senior High Learners for this study would give them a chance to experience a better quality of education as teachers would be aware of which among the



instructional approaches are the most effective to the kind of learners the division have.

This paper was able to assess the present teaching and learning process itself in the division as they cater Regional Memorandum No. 11 s. 2015 or what is known as 2C 2I R pedagogical approaches. Lastly, the teachers as well as the students would reconcile and meet in the middle to work together for the benefits of the millennial learners as this study propose a Teaching Stratagem Database which would serve as an oasis of strategies and approaches to be used in SHS teaching.

### OBJECTIVES OF THE STUDY

The study Teaching Stratagem Database: An Efficacy Promulgation of Instructional Approaches in SDO Batangas Province aimed to 1) critically examine the instructional approaches or instructional approaches used by the SHS teachers in division. 2) determine the instructional approaches commonly used by SHS teachers in SDO Batangas Province and the level of its efficacy; 3) evaluate the professed instructional approaches used by the SHS teachers and the level of efficacy in the content areas such as Filipino ;Science ;Physical Education ;Personality ;English Subjects; and Computer/ Technology Subjects; 4) determined the significant difference between the instructional approaches used by the teachers and the professed instructional approaches in SHS. This study also aimed to propose a mechanism that could be offered that will promote the best and most effective instructional approaches that would contribute to enhance teachers' efficacy in the classroom.

### METHODOLOGY

There were two sets of participants in this study. The student - participants were 170 Grade 12 Senior High students from different tracks offered in SDO Batangas Province. They were the students who experienced the application of the 27 pioneer teachers with different specializations teaching the selected content areas. These teachers were the second participants of the study. They were selected

through the use of systematic random sampling. Moreover, content areas are identified as the common areas in all of the strands offered in SDO Batangas Province, School Year 2017 – 2018.

The instrument that was used to gather the data was the Likert-scale questionnaire from the University of Minnesota. The researchers obtained standardized questionnaires to guarantee the instrument's reliability and validity. The researchers used Direct Observation, interview, and Focus Group Discussion to meet the requirements of this mixed method study. The data was collected, tabulated, and interpreted using mixed methods to derive a clear and critical understanding of the approach, method, and strategy being used for teaching-learning process and its efficacy, suitable to the SHS Learners. Discourse Analysis, on the other hand, was focused on qualitative data and coded information. The outputs from qualitative measures were very useful for the study.

Moreover, the researchers took great care to safeguard the information she had been entrusted with and to comply with all relevant ethical regulations.

### RESULTS AND DISCUSSION

#### 1. Instructional approaches used level of efficacy in Division - SHS

In Table 1, the SHS Teachers' Instructional Approaches are well delineated and ranked according to its obtained weighted mean of which is being the most effective strategies used. Experiential Learning ranked 1<sup>st</sup> with a weighted mean of 3.95 considering it as an effective instructional approached used and applied by the respondents' teachers for it enables students to learn through observation and interaction. It also demonstrates learning through reflection on doing and it supports confronting students with unfamiliar situations and tasks, students need to figure out what they know, do not know and how to learn such things in their own ways and context. Also, this approach allows students to use classroom, laboratory, or studio to embed activities such as case and problem-based study, experiments, or art projects. David A. Kolb's



(2014) book entitled *“Experiential Learning: Experience as the Source of Learning and Development”* also supports this result as it concluded that experiential learning theory ascertains this as an effective instructional approach.

**Table 1**  
*Instructional Approaches of the SHS Teachers*

SHS Instructional Approaches	Weighted Mean	V.I
Case Method	3.59	E
Cooperative Learning	3.73	E
Active Learning	3.89	E
Integrating Technology	3.54	E
Inquiry-based Learning	3.74	E
Lecture/ Discussion	3.64	E
Demonstration	3.86	E
Collaborative Learning	3.65	E
Learning by Teaching	3.49	E
Experiential	3.95	E

*E – Effective*

In active learning (with a weighted mean of 3.89) followed. Furthermore, Demonstration was ranked 3rd with an effective instructional approach. The teachers-participants reiterate that the students appreciate them when they can accomplish the task first. Consecutive to this is Inquiry Based Learning, which gets a mean of 3.74, while Cooperative Learning gets a mean of 3.73, while Collaborative Learning possesses a weighted mean of 3.65, and Lecture/Discussion gets a mean of 3.64. Students appreciate teachers who ask questions, but students are known to be outspoken. Finally, SHS Learning by Teaching was described as the least. Teacher instructional approaches, regardless of their rank, are based on their 3.49-point gained weighted mean.

The instructional approaches used by SHS teachers are found to be effective. This is evident in the academic and curricular achievements of students as well as in school performance in various fields.

On the other hand, the study by Jerry Gosen and John Washbush (2004), experience-based learning, appears to be unsuccessful. The research concluded that empirical research shows that experiential learning is successful.

Thus, however, the results revealed in these studies are subject to interpretation.

Division SHS teachers' instructional approaches lead to independent, strategic learners. When students employ these strategies independently and effectively, they are employing learning strategies. they help students concentrate, gather information for comprehension, monitor and assess learning (Alberta Learning, 2002).

## 2. Professed SHS Instructional Approaches by Content Areas

### 2.1 Professed Instructional Approaches in the Filipino Subjects

**Table 2**  
*Professed Instructional Approaches in the Filipino Subjects*

SHS Instructional Approaches	Weighted Mean	V.I
Case Method	3.30	E
Cooperative Learning	3.60	E
Active Learning	3.55	E
Integrating Technology	3.30	E
Inquiry-based Learning	3.15	E
Lecture/ Discussion	3.75	E
Demonstration	3.40	E
Collaborative Learning	3.00	E
Learning by Teaching	3.35	E
Experiential	3.55	E

*E – Effective*

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instructional approaches, regardless of their rank, are based on their 3.49-point gained weighted mean.

The instructional approaches used by SHS teachers are found to be effective. This is evident in the academic and curricular achievements of students as well as in school performance in various fields.

Every strategy employed in the subject Filipino subjects was found to be effective. Learning by Teaching, Case Method, Integrating Technology, Inquiry-based Learning, and Collaborative Learning are all effective instructional approaches for Filipino subjects.

Lectures have a primary function of "the transfer of facts" according to Kowalski (2007). About half of a random sample of faculty (Isaacs, 2004) believes that lectures can convey important facts, explain difficult points, discuss interesting points, provide a framework for private study, and give "enrichment material" (Bligh, 2011).

This finding is distinct from the other, because results in Kevin M. Bonney's book (2015) are "Case Study Teaching Method Improves Student Performance and Perceptions of Learning Gains", which are students saying case studies were "nice" or "huge."

Also, the Filipino teachers assert that in subjects such as their specializations, discussions on the technicalities of the topics are necessary to maximize students' understanding. Active and experiential learning grant students' magnificent results.

## 2.2 Professed Instructional Approaches in the Science Subjects

The various Instructional Approaches for Science, which are identified and ranked in Table 2, are shown. This weighting places Active Learning and Experiential in third position as an effective instructional approach. In education today, teaching science content is crucial, and this is why. Active learning appeals to many different learning styles, increasing student engagement in the learning process, and helping them retain knowledge.

**Table 3**  
*Professed Instructional Approaches in Science Subjects*

SHS Instructional Approaches	Weighted Mean	V.I.
Case Method	3.25	E
Cooperative Learning	3.5	E
Active Learning	3.68	E
Integrating Technology	3.38	E
Inquiry-based Learning	3.5	E
Lecture/ Discussion	3.35	E
Demonstration	3.43	E
Collaborative Learning	3.53	E
Learning by Teaching	3.25	E
Experiential	3.68	E

*E – Effective*

According to SHS science teachers, students who lose interest in science or feel intimidated often limit their potential in science classrooms. Students' engagement helps them discover the excitement and practical applications of science. "The mind is not a vessel that needs filling, but wood that needs ignition." The teacher respondent felt that active learning for the future of education was required. Students will be excited, motivated, and content with their learning. They will have an opportunity to discover science's value and not only consider it as a mundane subject. If this happens, more students will pursue science-related careers.

Conversely, Experiential Learning supports students in applying their knowledge and conceptual understanding to real-world problems. Additionally, it gives teachers the opportunity to confront students with unfamiliar situations and tasks, which allows students to self-evaluate and discover how to learn.

Researchers also found in the International Journal of Science and Mathematics Education's paper, "Investigating the Effectiveness of Inquiry Instruction on the Motivation of Different Learning Styles Students," that after students received inquiry instruction and instruction-based teaching, their motivation increased (Tuan, H., Chin, C., Tsai, C., & Cheng, S. 2005).

Some strategies remain highly effective in teaching science subjects because of their



weighted mean, but they definitely differ in regard to their rank. The third-ranked course is Collaborative Learning, followed by Cooperative Learning and Inquiry-based Learning which are both tied at rank 4.5. Next, we have Demonstration with a weighted mean of 3.43 and Integrating Technology with a weighted mean of 3.38. Weighted mean 3.35 followed lecture/discussion. Case Method and Learning by Teaching had a weighted mean of 3.25.

Science instructional approaches are all effective according to their weighted mean and verbal interpretation. The five (5) most effective instructional approaches are Active Learning, Experiential Learning, Collaborative Learning, Inquiry-based Learning, and Cooperative Learning. Most ineffective instructional approaches are Demonstration, Integrating Technology, and Lecture/Discussion.

This, however, proved to be the least effective method for science subjects, as it yielded a weighted mean of 3.25. Students want to interact, so this is why they desire firsthand experiences. The teachers may not have enough facilities to offer subjects like higher level science lessons. Regardless of how much teachers want to provide labs; the resources are insufficient.

The above table shows that among all the professed SHS Instructional approaches for Physical Education, Experiential Learning has the highest weighted mean rank. To give students in public and private high schools a valuable experience-based learning opportunity, experimentation could be an approach (Tapps, Passmore, Lindenmeier & Kensinger, 2014). Experiences gives a greater amount of knowledge to students most especially when they are problem based, inquiry based and sort of apprenticeship.

### 2.3 Professed Instructional Approaches in the subject Physical Education

According to the students-respondents, involvement in an organized activity empowers students to meet the needs of the class and to help teachers identify the learning needs of their peers.

**Table 4**  
*Professed Instructional Approaches in the subject Physical Education*

SHS Instructional Approaches	Weighted Mean	V.I.
Case Method	3.38	E
Cooperative Learning	3.31	E
Active Learning	3.38	E
Integrating Technology	3.19	E
Inquiry-based Learning	3.75	E
Lecture/ Discussion	3.38	E
Demonstration	3.5	E
Collaborative Learning	3.84	E
Learning by Teaching	3.75	E
Experiential	3.93	E

*E – Effective*

Experience-based learning widens students' learning experience, including classroom application of what is learned and discussed (Kolb, 1984).

Additionally, students will be able to use their physical strength while being able to stretch out and perform productively and excellently in the outdoors. The scope of this approach is very similar to Physical Education, which necessitates active participation from students by providing physical activities or self-application.

When weighted, Collaborative Learning scored a mean of 3.84. Collaborative work is imperative in almost all Curriculum Guide activities. To begin with, group activities are required.

Finally, Research and Inquiry-based Learning ranked third and Learning by Teaching ranked third. Demonstration has a weighted mean of 3.5 while Case Method, Active Learning, and Lecture/Discussion have a weighted mean of 3.38. With a weighted mean of 3.31, ranked 9 is Cooperative Learning. With a weighted mean of 3.19, Integrating Technology was last of the instructional approaches. Physique, of course, is critical in PE and does not require any technical assistance. According to student respondents, their teachers enable them to escape to digital attachment and they value this.



Table 4 depicts that in terms of rank, Active Learning was known to have obtained the highest score of 3.66 as a weighted mean. For that same reason, activities like reading, writing, discussion, and problem solving are involved, which promote analysis, synthesis, and evaluation of class content.

## 2.4 Professed Instructional approaches in the subject Personal Development.

**Table 5**  
*Professed Instructional approaches in the subject Personal Development*

SHS Instructional Approaches	Weighted Mean	V.I.
Case Method	3.25	E
Cooperative Learning	3.38	E
Active Learning	3.66	E
Integrating Technology	2.28	SE
Inquiry-based Learning	3.53	E
Lecture/Discussion	3.47	E
Demonstration	3.63	E
Collaborative Learning	3.53	E
Learning by Teaching	2.59	SE
Experiential	2.69	SE

E – Effective SE – Slightly Effective

It empowers students to become active learners from being passive learners in which teachers can easily detect improvement and learning. This method helped students to connect, talk, read, write, and reflect as they learned subject content through problem-solving exercises, informal small groups, role playing, and other activities. It encourages the development of students' personalities by putting them in a position to do things like investigate, analyze, communicate, create, reflect, or practice new skills to enhance their well-being (Donclark, 2018).

After active learning, demonstration had a weighted mean of 3.63. Inquiry-based and collaborative learning got a 3.53 weighted mean. The lecture and discussion concluded, and cooperative learning was observed. The method scored a weighted mean of 3.25 in the list. Experiential Learning has a weighted mean of 2.69, and learning by teaching follows with a weighted mean of 2.59. Integrating Technology came in last with a weighted mean of 2.28.

Summarizing the contents of Table 5, all instructional approaches that have a value of 3 or above as their weighted mean are recognized as effective. The remaining slots that rank 8 through 10 with a weighted mean of 2 and less than 3 is slightly effective.

## 2.5 Professed Instructional approaches in English Subjects

**Table 6**  
*Professed Instructional approaches in English Subjects*

SHS Instructional Approaches	Weighted Mean	V.I.
Case Method	3.25	E
Cooperative Learning	3.33	E
Active Learning	3.68	E
Integrating Technology	3.30	E
Inquiry-based Learning	3.50	E
Lecture/ Discussion	3.39	E
Demonstration	3.53	E
Collaborative Learning	3.43	E
Learning by Teaching	3.25	E
Experiential	3.68	E

E – Effective

According to the results in Table 6, students in the English Language Subjects rate the "experiential learning" instructional approach as the most effective. Its weighted mean is 3.68. Experience is the basis for all theoretical backgrounds to experiential learning (Kujalova, 2005). Generally, experiences are seen as positive, impressive, and rare. It is something that enriches a person's life; something they acquire during life that leads to harmony between the internal and external realities. Experience is not passive, but rather active and impacts your personality. Knowledge results from taking an active part in changing reality. Furthermore, we've applied 'encouraging students with unfamiliar situations and tasks, and letting them to figure out what they know, don't know, and how to learn it.'

'Active learning' and 'experiential learning' have weighted means of 3.68. This means that this approach is successful. Under this teaching method, activities that engage students, such as reading, writing, discussion, or problem solving, support analysis, synthesis, and evaluation of



course content and promote understanding of the subject through inquiry, analysis, and problem solving.

Taking all things into consideration, the data also presents the third-ranked instructional approach used in the subject of English. Demonstration's method has a weighted mean of 3.53. English teachers concurred that they were performing tasks in subjects by step-by-step so that learners could eventually complete the same task independently. Students will learn how to handle the unexpected issues and obstacles that arise. 'Inquiry-Based Learning', 'Lecture/Discussion', 'Cooperative Learning', 'Integrating Technology', and 'Case Method' have mean scores of 3.50, 3.39, 3.33, 3.30, and 3.25, respectively.

Table 6 shows that all of the given instructional approaches are utilized to learn the subject of study. All instructional approaches are said to be useful in the subject of Practical Research and 21st Century Literature, English for Academic and Professional Purposes, and Reading and Writing Skills. This implies a positive result, and thus indicates effectiveness.

## 2.6 Professed Instructional approaches in the subject Computer/ Technology subjects

**Table 7**  
*Professed Instructional approaches in the subject Computer/ Technology subjects*

SHS Instructional Approaches	Weighted Mean	V.I.
Case Method	3.4	E
Cooperative Learning	3.19	E
Active Learning	3.69	E
Integrating Technology	3.19	E
Inquiry-based Learning	3.06	E
Lecture/ Discussion	2.56	SE
Demonstration	3.56	E
Collaborative Learning	3.56	E
Learning by Teaching	3.06	E
Experiential	2.99	SE

*E – Effective SE – Slightly Effective*

Table 7 displays the different SHS Instructional Approaches as professed by the students-respondents are detailed, including their mean. Additionally, the highest ranking among Computer/Technology subjects is Active

Learning, as its weighted mean is 3.69. In Computer classes, students' attention declines after 10 to 15-minute lectures the computers in these classes needed to be improved. They have all been in lectures where something catches their attention, missing the rest of the next point (McConnell, 2017). Lecture for 10 minutes, and then take a 5-minute break.

During the break, students fill in gaps and correct misunderstandings with the person next to them. Alternatively, you could put forth a question and engage in the "think-pair-share" technique. In this technique, a question is posed to the students, who then answer it in one to two minutes. Students then pair up and discuss their answers, perhaps creating a new one. In the next lecture, the instructor may ask a few pairs to share their answers with the class. In Computer subjects, Active learning is this.

Demonstration and Collaborative Learning come after their 3.56 weighted mean. This instructional approach was based on the instructional process called 'demonstration' and used the instructional method known as 'showing by reason or proof, explaining or making clear by use of examples or experiments' with their students. Case Method ranks 4th for its weighted mean of 3.4. Following are Cooperative Learning, Integrated Technology, and Inquiry-based Learning, which all correlate to Ranked fifth to eighth. 3.19 and 3.06

All instructional approaches are effective; thus, they are all appropriate for teaching subjects that include "Computer and Technology". The ninth and tenth ranked instructional approaches to be used in Computer/Technology subjects are "Experiential" and "Lecture Discussion," respectively. The facilities are limited because of this.

Table 7 summarizes the number of instructional approaches used in the selected content areas, including the mean and verbal interpretation of these approaches. According to the results, Active Learning ranked first with a weighted mean of 3.69. The respondents claim that they have independent and guided learning during Senior High School and their teachers are treating them with it. This strategy enables them to think independently, while still having a





profound connection with every student in the class. Also, Experiential learning scored 3.59 WM. Educating students through the practice of first-hand knowledge. They acquire outside of the classroom skills, knowledge, and experience. It involves internships, studying abroad, field trips, and service-learning projects. Use of new educational technologies, such as video conferencing and Virtual Reality, advances experiential learning.

### 2.7 Summary of Professed Instructional Approaches in Selected Content Areas

Additionally, experiential learning offers accelerated learning because it is not “learning by rote” but “learning by doing.” As a result, learners can think critically, learn problem solving and decision-making abilities. This resonates with division students. Demonstration ranked 3, obtaining a weighted mean of 3.51, as well as being effective. In addition, participants desire realistic examples, and their teachers fulfill their responsibilities. It is greatly appreciated by students, and teachers have no hesitation to act on their students' behalf.

**Table 8**  
*Summary of Professed Instructional Approaches in Selected Content Areas*

SHS Instructional Approaches	Weighted Mean	V.I.
Case Method	3.31	E
Cooperative Learning	3.41	E
Active Learning	3.61	E
Integrating Technology	3.29	E
Inquiry-based Learning	3.42	E
Lecture/ Discussion	3.31	E
Demonstration	3.51	E
Collaborative Learning	3.48	E
Learning by Teaching	3.38	E
Experiential	3.59	E

E – Effective

The teachers model and set examples. In fourth place is Collaborative Learning, with a weighted mean of 3.48. Teachers promote teamwork, group dynamics, and team projects in

Division. The students believe that by doing collaborative learning; they maximize their potential. Conversely, succeeding instructional approaches in the ranking employ Inquiry-based Learning with 3.42 WM; Cooperative Learning with 3.41 WM; and Learning by Teaching with 3.38 WM. Case method and lecture/discussion ranked the 8th with a weighted mean of 2.98. As millennial students, students demand lively discussions that inspire their interest. They only permit lectures if they are interactive, and the instructors are engaging. These instructional approaches should not be avoided, but it is very hopeful that they will engage students in their full enthusiasm.

Integrating Technology with a weighted mean of 3.29. We can assume students appreciate classroom encounters with their classmates and teachers because of this. They want to see teachers doing face-to-face assessments and classroom discussions.

### 3. Efficacy among Instructional approaches used and Professed Instructional approaches

Table 9 apparently displays the significant difference between the ‘Instructional approaches commonly used in SHS’ and ‘Instructional approaches in content areas by Subject’.

**Table 9**  
*Difference in the efficacy among the Used Instructional approaches and Professed Instructional approaches in the Selected Content Areas*

Instructional approach	Mean	t-value	p-value	Critical Value	Decision on H0	Verbal Interpretation
Used	3.708					
Professed	3.431	4.5634	0.1680	2.1100	Accept	Not Significant

Legend: Significant at p-value < 0.05

The means of the variables are 3.708 and 3.431, and the resulting p-value is 0.1680. The legend states that if the data p-value rises above significance, ‘no significant difference’ will be observed between the variables. Clearly, the p-value of 0.1680 is greater than the level of



significance of 0.05. The conclusion is inescapable. Verbally, teachers used specific teaching methods that match their subject matter. In general, teachers are unsure of which instructional approach is most effective.

Every teacher has her or his own style of teaching. And as traditional teaching styles evolve with the advent of differentiated instruction, more and more teachers are adjusting their approach depending on their students' learning needs (Gill, 2020). Teachers employed almost all learning strategies, which would keep his learners engaged while learning. There will always be differences in teachers' approaches and strategies.

The paper entitled 'SDO Batangas Province Teaching Stratagem Database' presents the blueprint of the proposed ways made by the researchers to improve the resulted five (5) least instructional approaches utilized by SHS teachers. This database contains different instructional approaches with numerous suggested strategies on how to use the approaches inside a classroom. More so, activities, instructional videos and others are also available in this database.

Subsequently, this mechanism has cyber counterpart where all possible assistance from the researchers is downloadable, editable, and accessible at all times. This website also offers all possible assistance to execute instructional approaches and templates the teachers of SDO Batangas Province SHS Department can adopt to enhance their teaching.

## CONCLUSIONS

With the result of this study, the following conclusions were made:

1. Experiential Learning Instructional approach commonly used by the Teachers is the most effective instructional approach and the least effective of all is Learning by Teaching in SDO Batangas Province Senior High Department.
2. The top three (3) instructional approaches that excelled and were discovered to be

effective as professed by the students - respondents used in the selected content areas are Experiential Learning, Active Learning and Demonstration. Meanwhile, learning by teaching, Integrating Technology, Case Method and Lecture/ Discussion were the last in the list of Instructional approaches as professed by students.

3. There is no significant difference among the Instructional approaches used by the teachers and the professed Instructional approaches in different content areas.
4. A mechanism for the enhancement of instructional approaches is proposed.

## RECOMMENDATIONS

With respect to the conclusions drawn, the succeeding recommendations are presented:

1. Experiential Learning and Active Learning can be frequently used by teachers for a better way of teaching and continue to enhance the use of these approaches. On the other hand, Learning by Teaching should be studied and explored together with the other less effective strategies to upgrade its effectiveness and further enhance the use of these approaches.
2. The teachers may contemplate the subject they are teaching when choosing an instructional approach to apply and they should analyze more if their professed instructional approach is appropriate to their subject.
3. A more extensive research maybe also be considered or made to further analyze and determine the effectiveness of the instructional approaches on the SHS Learners and how it could be improved.
4. The researchers recommend that the Proposed Database for Instructional approaches for their enhancement be utilized and implemented and evaluated thereafter.



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