

**“THE EFFECTIVENESS OF IMPLEMENTING 5S
(SORT, STRAIGHTEN, SHINE, STANDARDIZE, SUSTAIN) TO MAKE ICT
CLASSROOM OF GRADE 10 STUDENTS AT HOLY SPIRIT NATIONAL HIGH
SCHOOL CONDUCTIVE TO LEARNING”**

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Abstract

"5S" is a systematic technique used by manufacturing as well as service organizations."5S" comes from five Japanese words- Seiri (sort), Seiton (set in order), Seiso (shine), Seiketsu (standardize) and Shitsuke (sustain). "5S" was implemented in educational institute focusing on the better management of students, teaching and non- teaching members. The successful implementation of "5S" transformed the organization by increasing the interest of the students in their studies and increased the faculty members' work satisfaction.

This study was conducted to adapt the 5S and gauge its efficiency in my ICT classroom to make it conducive to learning. Its implementation involves physical space, encouraging students to engage, creating mutual environment and sustaining its positive. Descriptive method of research was used and survey using likert scaled questionnaire as a tool for gathering information. Respondents' responses affirmed that 5S helped a lot not only in creating positive learning atmosphere in ICT room but more over it promotes self discipline among students.

Keywords: effectiveness of implementing 5s, sort, straighten, shine, standardize, sustain, ICT classroom, spirit national high school, conducive to learning

INTRODUCTION

One of the most important roles of a teacher is to ensure students' learning and development. Learning can be fully achieved not only thru educational tools and instructions, books, educational websites, and any other references but it can also be attained in an environment which create positive classroom atmosphere. Positive classroom atmosphere entails students' positive attitude, motivation, participation and readiness to grasp learning. Classroom is a teaching resource that should not be taken for granted. It is a place in school where teachers and students spend majority of their time for teaching-learning process. Developing a classroom environment conducive to learning is a practice that involves physical space which creates positive classroom atmosphere.

Conducive classroom is a condition which promotes favorable mood or atmosphere in a classroom to ensure that effective teaching and learning process will take place. Students will learn better if their classroom is clean. Based from an article posted on the social media

(<http://www.the-cleaning-comnay.co.uk>), the most important benefit of a clean classroom is the fact that it maximizes the learning experience of the students. Dirty environments negatively impact the learning of student and in turn, the overall performance is the classroom.

Classroom management is one of the primary roles of the teacher. This may include tasks which deemed necessary to create positive learning environment also. These tasks are beyond routinary activities because its effectiveness lies on how firm your implementation is. We often face such problems because the entire educational system observed as a systematic cultural view arising from the conceptual values of modernization over the past several decades, where our education system splits the teaching and learning of language and content subjects when they should really be beading them in single thread. (Mishra & Mishra, 2019). As cited by Findley & Varble (2006), “All environments should be conducive in a way so as to enhance the learning process. Going further, conducive to learning can also include classroom management which means more than just maintaining strict and rigid control over the class and its content; it means establishing a comfortable environment that allows everyone to learn and participate freely”

THEORETICAL FRAMEWORK

There are various theories underlying classroom management. Discipline imposed and standing rules to follows set by the teacher are also part of the classroom management. The need of the hour is good people with cultivated minds. (Mishra & Mishra, 2020). Classroom is a learning environment where active interactions and meaningful learning occur. Thus, it is imperative to know its essential role in the learning process.

One of the fundamental theories that this study adapted is based on the study conducted by Skinner, B.F (1978), the Behaviorism Theory which is based on the concept “practice”. This theory supports operant conditioning using which, a teacher can achieve expected behavioral outcomes. The behaviorist theory of B.F. Skinner advocates these practices, referring to them as “Behavioral Intervention Plans”. It promotes the idea of rewarding the students in exchange for expected behavioral outcomes. Retrieved from [eduexcellence.org/blog/14/Classroom-Management-Theories](https://www.eduexcellence.org/blog/14/Classroom-Management-Theories).

Another theory which was proposed by Canter Lee (1976), suggests those students’ positive behaviours should be recognized and encouraged. This is the Discipline Theory that allows teachers to inform students about expectations they have as well as rules they have set. Once they inform students, they will closely monitor who follow these guidelines. Retrieved from <https://www.eduexcellence.org>.

According to Kohn, Alfie (1997), The Theory of Value firmly believes that students need to be taught how to be responsible and respectful. Once this is accomplished, all other content can be learned at a more reasonable rate with a greater threshold of proficiency. The goal of education is to help students realize that they can think, learn, act, and change things. Retrieved from <https://newfoundations.com/GALLERY/Kohn.html>.

This study being conducted determined the effectiveness of the 5S in making the classroom conducive to learning which might pave the way in creating Holy Spirit National High School positive learning institution as a whole.

CONCEPTUAL FRAMEWORK

The study on the effectiveness of 5S focused on the variables stipulated in the statement of the problems. The following conceptual framework which maps out the actions required in the course of this research.

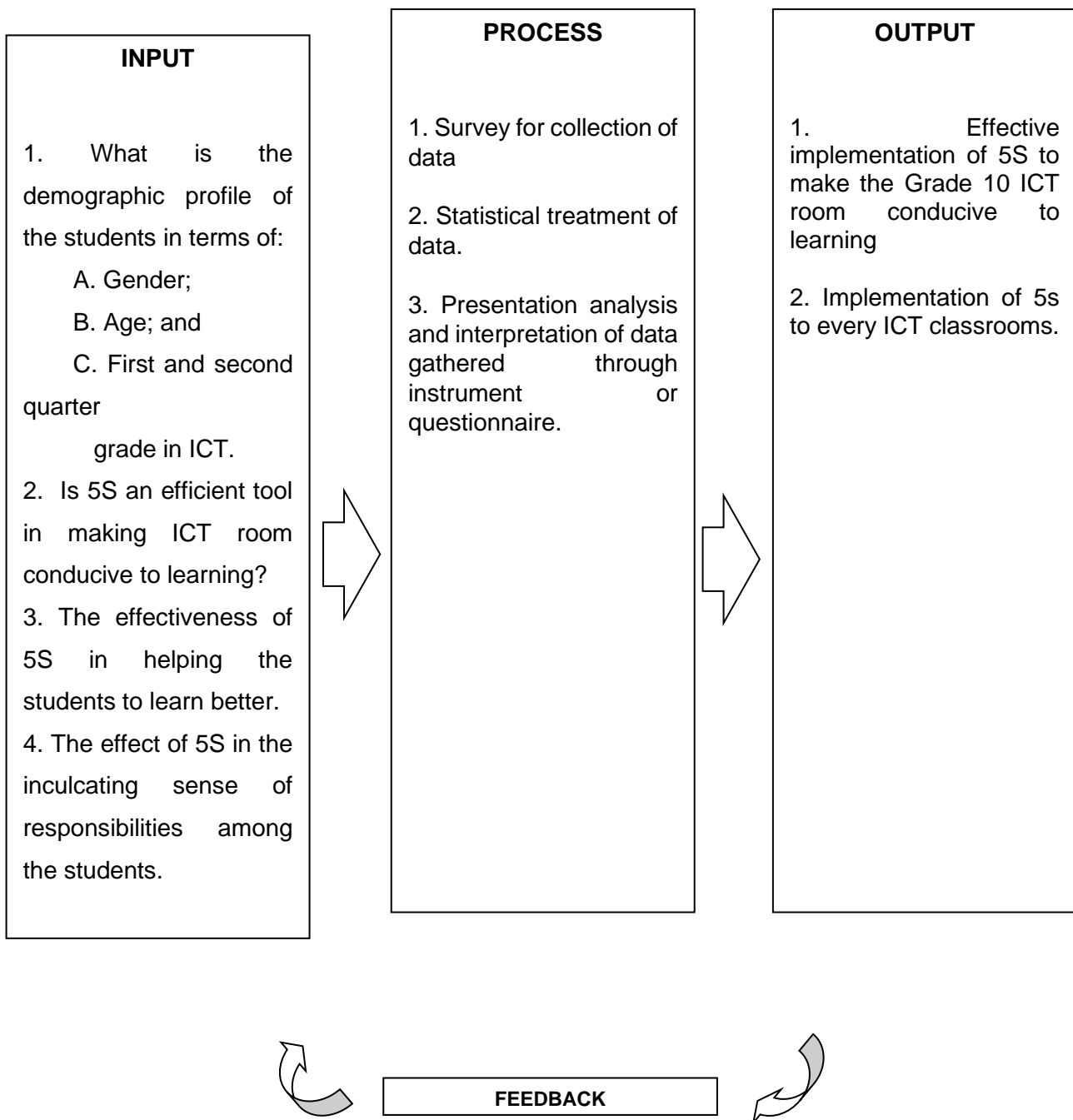


FIGURE 1. Conceptual Framework for the Effectiveness of 5S in Making CT Room Conducive to Learning

The framework shown above shows the input of the study which is composed of the variables specified in the statement of the problems. And on the process, the researcher conducted a survey, analysis and interpretation of data gathered. And lastly, for the output is an effective implementation of 5S to make grade 10 ICT room and other ICT classrooms conducive to learning.

STATEMENT OF THE PROBLEM

The study aimed to know the effectiveness of implementing 5S (Sort, Straighten, Shine, Standardize, Sustain) to make ICT classroom of Grade 10 students at Holy Spirit National High School conducive to learning.

Specifically, the study seeks to answer the following questions:

- (1) What is the demographic profile of the students in terms of:
 - A. Gender;
 - B. Age; and
 - C. First and second quarter grade in ICT.
- (2) Is 5S an efficient tool in making ICT room conducive to learning?
- (3) The effectiveness of 5S in helping the students to learn better.
- (4) The effect of 5S in inculcating sense of responsibilities among the students.
- (5) Is there a significant relationship between the implementation of 5S to ICT classroom and the ICT students' academic performance of Holy Spirit National High School?

HYPOTHESIS:

There is no significant difference between the implementation of 5S to ICT classroom and the academic performance of the Holy Spirit National High School.

SCOPE AND LIMITATIONS OF THE STUDY

This study on the 5S implementation encompasses Grade 10 ICT students currently enrolled in the School Year 2019-2020 at Holy Spirit National High School. The study was conducted during the 1st and 2nd quarter. A survey questionnaire was used as a data-gathering instrument from which the results were based. Likert scales were used in the questionnaire.

The efficacy of the 5S implementation and its effect in creating positive learning environment in ICT room and its effect in the academic performance of the ICT Grade 10 students are the salient variables that were greatly emphasized.

SIGNIFICANCE OF THE STUDY

This research will be significant to the following:

- **The School.** The data to be collected in this research will give hand information about how effective the implementation of 5S in ICT room for maintaining
- cleanliness, orderliness and well organized learning environment. If 5S implementation found to be efficient, then the school administrators could set rules for its implementation in all classrooms.
- **The Students.** The facts to be gathered in this study will give students realization about the effects of cleanliness of the classroom not only to their academic performance but also to their good moral character.
- **The Teachers.** This study will be an additional aid for the teachers in their execution of classroom management and how they can sustain it.
- **The Future Researchers.** Data that will be presented in this study will truly help the researches who are also studying the implementation of 5s in schools.

Definition of Terms

Conducive – making a certain situation or outcome likely or possible

5S – refers to the five dimensions of workplace optimization. Sort, Set in order, Shine, Standardize, and Sustain.

Academic Performance – is the measurement of student achievement across various academic subjects.

Classroom Management – refers to the ways in which student behavior, movement and interaction during a lesson are organized, controlled by teacher.

Learning Environment – can refer to an educational approach, cultural context or physical setting in which teaching and learning occurs.

Efficacy – the ability to produce a desired or intended result

Implementation - process of putting a decision or plan into effect; execution

Concur – be of the same opinion; agree

Neutral – having no strongly marked or positive characteristics or features

Significance – the quality of being worthy of attention; importance

RESEARCH METHODOLOGY

This chapter presented the research methodology comprised of the method of research, population and sample size, research instrument, and statistical treatment of data.

Method of Research Used

The researcher utilized descriptive research method which is designed to gather information about the data needed in the chosen field of study. This method allowed the researchers to interpret the meaning of the findings and hypothesis development for further studies. Descriptive research is used in this research to describe the characteristics of a population chosen in the study or phenomenon being studied. This method answered the questions not about how/when/why the characteristics occurred. Rather it addressed the "what" questions of the study.

The researcher utilized survey using likert scaled questions as a method of her action research. In likert scale survey, the choices of the respondents are based on agreeing or disagreeing on a certain question in the survey. Questions are essential in measuring a respondent's opinion or attitude towards a given subject.

POPULATION AND SAMPLE SIZE

Sample respondents of this study were from the Grade 10 ICT students of Holy Spirit National High School currently enrolled in the said specialization. The sample size composed of 134 ICT students or 81.7% out of 164 officially enrolled in the said specialization. To ensure the representation of each section, the researcher employed the simple random sampling

RESULTS AND DISCUSSION

This chapter presents the researcher's gathered information and the results based on the series of the stated problems of this action research.

I. Demographic profile of the students

Table 1
Gender

Gender	Total
Male	82
Female	52
Grand Total	134

Majority of the respondents were male which is 82, 61.19% of the total respondents. 52 were female, 38.81% of the total respondents.

Table 2
Age

Age	Total
14-16	124
17-19	10
20 & above	0
Grand Total	134

It is clearly perceived that ages 14-16 garnered the highest rate which is 92.54% of the respondents, 7.16% for ages 17-19 and none of the respondents aging 20 & above.

Table 3

Quarterly Grades of the ICT Grade 10 students

Grade	1st Quarter	2nd Quarter
98-100	0	0
95-97	0	36
92-94	28	33
89-91	26	29
86-88	21	29
83-85	18	5
80-82	19	1
77-79	14	1
74-76	8	0
71-73	0	0
Grand Total	134	134

It can be seen on percentage of students. Then the lowest is 5.97%.

Academic performances of the students were improved from the 1st quarter as shown in the statistical data. Students who received higher grades increased during the 2nd quarter.

table 3 that the highest who got high grades is 26.86.

performances of the students 1st quarter as shown in the who received higher grades

II. Is 5S an efficient tool in making ICT room conducive to learning?

Table 4

Respondents' comparative response on 5S, an efficient tool in making ICT room conducive to learning

	5	4	3	2	1	TOTAL
1. 5S implementation makes ICT room well organized	94	33	7	0	0	134
2. 5S promotes positive learning environment in ICT class	96	33	3	1	1	134
3. 5S in ICT class is effective because it is strictly implemented	77	44	10	2	1	134
4. I can concentrate more in classroom activities during ICT class	79	44	9	1	1	134
5. I feel stressful during ICT class	2	1	17	26	88	134

5 = Strongly Agree 4= Agree 3= Neutral 2= Disagree 1= Strongly Disagree

The table showed that 94 of the respondents were strongly agreed that 5S makes ICT room well organized, 33 answered "agree", and 7 for "neutral". 96 students answered "strongly agree" for the 5S promotes positive learning environment, 33 for "agree", 3 for "neutral", and both 1 for "disagree" and "strongly disagree". In the item 5S is effective because it is strictly implemented, 77 answered "strongly agree" which bears the highest statistics, 44 for "agree", 10 for "neutral", 2 for "disagree" and 1 for "strongly disagree". In the piece "I can concentrate more in classroom activities during ICT class", 79 answered "strongly agree", 44 "agree", 9 "neutral", both 1 for "disagree" and "strongly disagree". In the section "I feel stressful during ICT class", 88 students strongly disagreed, 26 answered "disagree", 17 were "neutral", 1 for "agree", and 2 for "strongly disagree".

III. The effectiveness of 5S in helping the students to learn better

Table 5

Respondents' comparative response on the effectiveness of 5S in helping the students to learn better

	5	4	3	2	1	TOTAL
1. I am motivated to learn in ICT class because of its well organized classroom	98	36	0	0	0	134
2. Orderliness and cleanliness in the ICT classroom positively affects my learning capacity	98	33	3	0	0	134
3. 5S implementation helps me improve my academic performance in ICT class	83	40	11	0	0	134
4. The implementation of 5S boost my readiness to learn	85	36	13	0	0	134
5. 5S implementation facilitates peace of mind thus, enables me to learn better	92	29	13	0	0	134

5 = Strongly Agree 4= Agree 3= Neutral 2= Disagree 1= Strongly Disagree

Data presented in this table proved that 5S implementation helped the students to learn better. In all items presented large part of the respondents answered “strongly agree”, second part of them answered “agree” and the least part maintained “neutral”. None of them responded negatively.

IV. The effect of 5S in the inculcating sense of responsibility among students.

Table 6

Respondents’ comparative response on the effect of 5S in instilling sense of responsibility among ICT students

	5	4	3	2	1	TOTAL
1. 5S implementation foster sense of responsibility because it gives students	96	35	3	0	0	134
2. The implementation of 5s in ICT room molds me to become more responsible	89	39	6	0	0	134
3. I’m tired in complying with the 5s rule in ICT room	0	0	24	23	87	134
4. Execution of 5s teaches me not only responsibilities but as well as respect, discipline, and equality	94	28	12	0	0	134
5. 5S taught me to perform my duty even without supervision	71	50	13	0	0	134

5 = Strongly Agree 4= Agree 3= Neutral 2= Disagree 1= Strongly Disagree

The table entails favorable responses came from the majority of the respondents. Biggest part of them replied “strongly agree”, next part uttered “agree” and the least part of them remained “neutral”. The table also showed that no one of the respondents are tired in complying with the 5S rules in ICT room.

Summary of Findings

The following findings were obtained from the gathered and interpreted information:

1. Demographic Profile of the Respondents

The students who were enrolled in the ICT specialization were mostly from the age bracket of 14-16 years old and male as the mainstream. In terms of academic performance, majority of the respondents improved from the first quarter to the second quarter.

2. Is 5S an efficient tool in making ICT room conducive to learning?

Of all the items presented, majority of the respondents were strongly agreed that 5S implementation makes ICT room well organized, promotes positive learning environment, it is strictly implemented and because of its implementation they can concentrate more in

classroom activities and feel less stress during ICT class. These only proves that 5S is considered an efficient tool in making the ICT room conducive to learning.

3. The effectiveness of 5S in helping the students to learn better

The five guiding assessments presented were 1. I am motivated to learn in ICT class because of its well organized classroom 2. Orderliness and cleanliness in the ICT room positively affects my learning capacity 3. 5S implementation helps me improve my academic performance in ICT class 4. The implementation of 5S boosts my readiness to learn and 5. 5S implementation facilitates peace of mind, thus enables me to learn better. In all of the items presented majority of the respondents were strongly agreed and none of the respondents disagree. This only implies that the 5S is really effective in helping the ICT students to learn better.

4. The effect of 5S in inculcating sense of responsibilities among students

From the interpreted data, it is clearly showed that greater number of respondents strongly agreed that 5S implementation foster sense of responsibilities, molds them to become more responsible, taught them respect, discipline and equality, and trained them to perform their duty even without supervision. Moreover, majority of them implied that they were not tired of complying with the 5S rule in ICT room. The answers and confirmations of the respondents are tangible evidences that the implementation of 5S instills sense of responsibilities amongst ICT students.

Conclusion

From the findings derived, the following conclusions were drawn:

1. In general, the respondents were males and ranging from 14-16 years of age
2. Respondents confirmed that the 5S is an effective tool in making ICT room conducive by simply choosing the highest level of approval among the given options.
3. ICT students concurred that 5S is effective in helping them to learn better. This could be proven by the improvement of their grades from the 1st quarter to the 2nd quarter which is the reflection of how motivated they are to learn during ICT class. Their opinions in the items used to assess their opinions about the effectiveness of the 5S implicit that orderliness, cleanliness, and well organized ICT room contributed to their learning capacity, readiness to learn, and peace of mind, thus facilitate positive learning environment.
4. The effect of the 5S in inculcating sense of responsibility among the students was attested by the students' affirmation thru their answers. The data illustrated that they were in favor of the positive effect of the 5S in ingraining sense of responsibility, respect, discipline, equality in performing their task even without supervision.
5. The researcher therefore also concludes that there is a significant relationship between the implementation of 5S and the academic performance of the ICT students of the Holy Spirit National High School. In classroom setting, 5S represents a discipline for maintaining a well organized and visual classroom. An environment of a positive learning atmosphere has a positive effect on the students' academic performance because students are able to perform well.

Recommendation

With all the findings and conclusions, the researcher came into the following recommendations:

1. That the 5S be introduced to all of the students regardless of their gender and age so that everybody will be a part of creating classroom conducive to learning. Thus, there will be an effective teaching-learning process.
2. Full implementation of the 5S not only in ICT room but also in all classrooms of Holy Spirit Nat'l HS to create more positive learning environment
3. The researcher recommends the full implementation of the 5S not only in ICT room but also in all classrooms of Holy Spirit Nat'l HS
4. All school personnel, teaching and non-teaching should also be part of its implementation and monitoring so as to maintain its sustainability. As a whole, the school would be able to create a good citizenship of our country because everybody would be used to it and they will also perform same practices in their homes and community.
5. That the school administration should also implement 5S within the school premises so as to achieve and maintain clean working environment

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APPENDIX

BEFORE



DURING IMPLEMENTATION



AFTER

