A DEVELOPED HANDBOOK FOR PRE SERVICE TEACHER

DR. HENLY F. MARTIREZ

٠

Abstract — The study was conducted to determine the acceptability of the developed Handbook in Pre Service Teacher. The subjects of the study were selected Pre Service Teacher in Laguna State Polytechnic University. The respondents used the Checklist for their validation. Weighted mean and Standard Deviation were used in the assessment of Pre Service Teacher respondents on the developed Handbook in Pre Service Teacher as to its usability, consistency, adaptability, appropriateness and aesthetic value.

Index Terms— Handbook, Pre service , Usability, Adaptability, Appropriateness

1 INTRODUCTION

The whole student teaching program is designed to help future teachers grow through professional learning experiences where they will put into practice the many principles and theories which they have learned in the classroom.

Keeping a breast with a current trends and practices in the field of specialization, creativity and resourcefulness, patience and persistence, ability to deal with people. Exhibit a positive attitude toward all their undertakings would be one step forward realizing their goal in becoming the effective, involved and happy teachers they would want to be.

The student Teaching Supervisor-assist in the planning the program of student teachers. Sharing of their valuable experiences is of great help to student teachers in the field of endeavor. The lines of communication with superiors be maintained and open throughout the course. The student teachers should never hesitate to tell them their actual problems. They are in the best position to give real assistance and guidance.

The student teaching Supervisor serves as a liaison officer between the Teachers training institution and cooperating school on matters concerning student teaching. Pragmatically, the supervisor act as adviser, councilor and resource person, knows the problems of various nature related to the teaching and teaching management because of his/her experiences and educational background.

It is indeed a work motivator to improve the level of competence, recognition due to personal sense achievement, opportunities for growth and promotion as he/she upgrades his level of competence. The researchers innovate guide handbook and provided strategies that they can employ in the conduct of Pre service teacher who are sometimes are already employed and are sent by their principal for further knowledge and more skill development.

1.1 OBJECTIVES OF STUDY

The study sought to develop and validate a proposed handbook for Pre Service Teacher. Specifically, it aimed to answer the following questions:

- 1. What is the mean level of acceptability of parts of handbook for Pre service Teacher in terms of its:
 - 1.1 . content;
 - 1.2 . objectives;
 - 1.3 . discussions;
 - 1.4 . activities;
 - 1.5 . assessment?
- 2. What is the mean level of evaluation of the Handbook for Pre Service teacher with respect to:
 - 2.1. usability;
 - 2.2. consistency;
 - 2.3. adaptability;
 - 2.4. appropriateness; and
 - 2.5. aesthetic value?
- **3.** Is there a significant relationship between the parts of the Pre Service teacher handbook and the evaluation done by the raters?

1.2 Hypotesis

There is no significant relationship between the parts of the Pre service teacher handbook and the evaluation done by the raters..

2. Methodology

The descriptive method of research was used in this study. According to Key (1997), descriptive research is used to obtain information concerning the current status of the phenomena to describe "what exists" with respect to variables or conditions in a situation. The descriptive method was used to analyze the acceptability of the developed handbook for Pre Service Teacher.

Hence, this type of research design was used to know how valid the developed handbook for Pre Service teacher. The main objective in doing this study was to develop and validate a handbook for Pre Service teacher that may guide the

Pre Service teacher in teaching field. Different criteria were used in validating the handbook which the researcher carefully chose and accurately took into consideration.

Respondents of the Study

The study was geared toward the development and validation of the

Developed handbook for Pre Service teacher. Pre Service teacher were chosen as respondents from Laguna State Poly-technic University, Main Campus, Sta. Cruz, Laguna.

Sampling Technique

Purposive sampling was used in the selection of the evaluators. Purposive sampling is a common method of nonprobability sampling. Non-probability sampling does not involve random selection of sample elements. Some elements of the population do not have a chance to be included in the sample (Parreno and Jimenez, 2006)

Data Gathering Procedures

A letter of request was submitted to the Pre Service teacher, and sought permission to conduct the study. Immediately after the approval, with the permission of Pre Service teacher, schedules in distributing the questionnaires to the Pre Service teacher were arranged. Data gathered, were tabulated, analyzed, and computed applying the needed statistical treatment.

Research Procedure

After securing a permit from the Pre Service Teacher to conduct the study, the proponent underwent the following stages, and then monitored the development and completion of the study.

Preparation of the Handbook

Stage 1. Research and Reading. The Information were searched from the different brochures and research about the handbook.

Stage 2. Creating the Handbook. Taking into consideration the pieces of information, notes, interviews and discussions done, the researcher started to create and develop the handbook. Since the study aimed for the development and validation of the handbook, content validity standards were given attention as the basic guidelines in validating.

The criteria in assessment of the developed module, the following were well thought –out: 1) usability; 2) consistency; 3) adaptability; 4) appropriateness, and; 5) aesthetic value.

Stage 3. Content Review of the Handbook. The status of the developed handbook was reviewed by the Pre Ser-

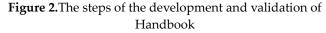
vice teacher. They were given copies of the handbook and allowed them to write their corrections.

Stage 4. Revision of the Handbook. The gathered validation, and corrections of the respondents were the bases for the revision of the material. Suggestions were considered for the betterment of the handbook.

Stage 5. Validation of the Handbook. The handbook was approved and recommended to be used by the Pre Service teacher, teachers, and future researchers.

Figure 2 shows the steps of the research procedure of the development and assessment of the handbook.

Step I	Research and Reading
Step II	Creating the Handbook
Step III	Review of the Handbook
Step IV	Revision of the Handbook
Step V	Validation of the Handbook



Research Instrument

The researcher created a Handbook for Pre Service Teacher to serve as their teaching aid with their daily teaching.

A researcher-made questionnaire was also employed as a part of the instrument in gathering the data.

The questionnaire aimed to generate assessment among the Pre Service teacher. The questionnaire had five (5) parts evaluated by the respondents to its usability, consistency, adaptability, appropriateness, and aesthetic value, content, objectives, discussions, activities and assessment.

Questionnaire's contents were answered by the Pre Service Teacher in Laguna State Polytechnic University Main Campus, Sta, Cruz, Laguna.

The following legend was used in the statistical treatment:

4.21-5.00	Extremely Acceptable
3.41-4.20	Very Acceptable
2.61-3.40	Moderately Acceptable
1.81-2.60	Slightly Acceptable
1.00-1.80	Not Acceptable

To measure the level of reliability of the research instrument Cronbach's alpha of value were obtained. The content of the visual technology, an instrument with the following subscales was used: Content (α =0.90), Objectives (α =0.74), Discussions (α =0.74), Activities (α =0.80), Assessment (α =0.83). The instrument also measures the level of acceptability of the material when used by teachers using the following subscales: Usability (α =0.68), Consistency (α =0.68), Adaptability (α =0.75), Appropriateness (α =0.86), Aesthetic Value (α =0.85).

Statistical Treatment

The following statistical tools were employed to provide solution and analysis to the problem.

Frequency of responses of the evaluators was used in determining the status of the developed and validate hand-book.

Finding the average mean of the assessed handbook was also used to determine the usability, consistency, adaptability, appropriateness and aesthetic value of the material. The response categories were as follows: extremely acceptable, very acceptable, moderately acceptable, slightly acceptable and not acceptable.

Pearson correlation r was used to determine the significant relationship between the parts of the handbook for Pre Service Teacher and the evaluation done by the raters.

3. Result and Discussion

The presentation of data is based on the sequence of statement of problem such as to find the mean level of acceptability of parts of handbook about for Pre Service teacher in terms of content, objectives, discussions, activities, and assessment and to find the mean level of evaluation of handbook for Pre Service teacher with respect to usability, consistency, adaptability, appropriateness and aesthetic value.

Furthermore, to find out if there is significant relationship between the parts of the visual technology and evaluation of Visual Technology in Mother Tongue - Based Multilingual Education (MTB-MLE) Grade one classroom managers, the researcher used the criteria for evaluation and the teacher-evaluators' ratings were consolidated and interpreted.

Experts' Ratings on the Characteristics of the Handbook

Mean Level of Handbook's Content

Table 1 presents the Mean Level of handbook for Pre Service Teacher in terms of Content.

Table 1. Mean Level of Handbook's Content

Content Mean SD Remarks

(This information is optional; change it according to your need.)

1.	Contains topics that are practical- ly related to each other	4.58	0.50	Extremely Acceptable
2.	Provides learn- ing tasks that re- late directly to the objectives of the handbook	4.51	0.50	Extremely Acceptable
3.	States objectives that are attaina- ble	4.60	0.56	Extremely Acceptable
4.	Suitable to the level of the Pre service Teacher	4.68	0.51	Extremely Acceptable
5.	Contains discus- sion that are needed for better understanding of the activities	4.51	0.60	Extremely Acceptable
Over-all	Mean	4.58	0.42	Extremely Acceptable

Legend:

4.21-5.00	Extremely Acceptable
3.41-4.20	Very Acceptable
2.61-3.40	Moderately Acceptable
1.81-2.60	Slightly Acceptable
	Not Acceptable

As reflected in the table, the rates of the Pre Service teacher in the characteristics of the handbook in terms of its content are extremely acceptable. The overall weighted mean of 4.58 showed that contents of the material contains topics that are practically related to each other, provides learning tasks that relate directly to the objectives of the lessons, states objectives that are attainable, suitable to the level of the learners and contains discussion that are needed for better understanding of the activities. The standard deviation 0.50, 0.50, 0.56, 0.51, and 0.60 revealed that the teachers were close to one another. This outcome was supported by De Guzman-Santos, (2007), once the purpose and the audience are established, determination of what the portfolio will contain comes next. In this case, the content of the handbook is the one regarded and observed. The content refers to the topics included in the handbook.

The Center for Writing the Studies, University Illinois supports this observation. They have stated that every paper students write has a main topic and a central message. The topics are clearly stated and sequenced so that the students are properly guided and not wondering of what to be learned.

As seen in the developed visual, the topics were properly arranged and sequenced so that both teachers and learners will be guided accordingly in their everyday lessons

Author name is currently pursuing masters degree program in electric power engineering in University, Country, PH-01123456789. E-mail: author_name@mail.com

Co-Author name is currently pursuing masters degree program in electric power engineering in University, Country, PH-01123456789. E-mail: author_name@mail.com

Mean Level of the Objectives in the Handbook

Table 2 on the succeeding page presents the Mean Level and the standard deviation of Handbook for Pre Service teacher in terms of Objectives.

The table revealed that the objectives were extremely acceptable with overall weighted mean of 4.60. The material contains goals that are attainable for the needs of the learners, provides goals that are easily understood by the teachers and learners, and motivates the learners to listen attentively, in line with the standard competencies set by the Department of Education, clear, simple, attainable and measurable. The standard deviations of 0.50, 0.48, 0.51, 0.50, and 0.53 indicated that the rates given by the teachers were relatively close.

Table 2. Mean Level of the Objectives in the Handbook

	Objectives	Mean	SD	Remarks
1.	Contains goals that are attainable for the needs of the Pre Service Teacher	4.56	0.50	Extremely Acceptable
2.	Provides goals that are easily under- stood by the Pre Service Teacher	4.65	0.48	Extremely Acceptable
3.	Motivates the Pre Service Teacher to listen attentively	4.67	0.51	Extremely Acceptable
4.	In line with the standard work val- ues set by the Stu- dent teaching pro- gram	4.56	0.50	Extremely Acceptable
5.	Clear, simple, at- tainable and meas- urable	4.58	0.53	Extremely Acceptable
Over-all Mean		4.60	0.38	Extremely Acceptable

Legend:

- 4.21-5.00 Extremely Acceptable 3.41-4.20 Very Acceptable 2.61-3.40 Moderately Acceptable 1.81-2.60 Slightly Acceptable
- 1.00-1.80 Not Acceptable

This result was supported by Burden as cited by Baltazar (2015). He specified that a clear objective gives direction to the student in studying a course. This gives the students a clear concept of what is necessary for him to learn. Cruz (2000) also emphasizes that objectives will be the guide of what is to learn on the given instructional materials and, therefore, must be written in a way that the students can easily comprehend and understand. This was also supported by Bohlin et. al. (2009) that reliability of the test score or measurement is measured on a continuum from high to low.

The objectives of this handbook are cognitively pre-

ferred and related to the objectives of the material. It is also given attention the dependability aspect of the handbook for Pre Service teacher.

Mean Level of the Discussions in the Handbook

Table 3 on the next page presents the Mean Level of Handbook for Pre Service Teacher in terms of Discussions.

Table 3. Mean Level of the Discussions in the Handbook

Discussions	Mean	SD	Remarks
 Contains topic that are arranged in sequence need- ed in the devel- opment of the Pre Service Teacher 	4.63	0.52	Extremely Ac- ceptable
 Uses appropriate work values that are helpful to the Pre Service Teacher to com- prehend the given topic 	4.60	0.49	Extremely Ac- ceptable
3. Contains topics on work values that are related to the Pre Service teacher for better understanding of the handbook.	4.68	0.47	Extremely Ac- ceptable
4. Presented the handbook to use for an activity output.	4.65	0.48	Extremely Ac- ceptable
Over-all Mean	4.64	0.40	Extremely Ac- ceptable
Legend:			

4.21-5.00 Extremely Acceptable 3.41-4.20 Very Acceptable

2.61-3.40 Moderately Acceptable

1.81-2.60 Slightly Acceptable

1.00-1.80 Not Acceptable

It is shown in Table 3 that discussions were extremely acceptable with overall weighted mean of 4.64. The material contains topic that are arranged in sequence needed in the development of Pre Service Teacher, uses appropriate words that are helpful to the Pre Service Teacher to comprehend the given topic, contains examples of words, phrases, sentences, short stories and pictures that are related to the topic for better understanding of the lesson and presented step by step. The standard deviations of 0.52, 0.49, 0.47, and 0.48 revealed the commonality of the rates of the teachers.

This result serves as response to the Basic Education Act of 2013 (RA 10533) as supported by DepEd handbook Chapter 4 section 3.3, that the instructional materials should be properly planned, selected, and utilized to have fruitful

discussions in reinforcing and facilitating the learning process.

The discussions that are stated in the handbook are all realistic and attainable that helps both teachers and Pre Service teacher achieved the understanding of the lessons. The developed handbook also improves learner's thinking skills and increases their appreciation in the class discussions.

Mean Level of Activities in the handbook

Table 4 on the next page presents the Mean Level of Handbook for Pre Service Teacher in terms of Activities.

	Activities	Me	S	
		an	D	Remarks
1.	Encompasses activities that reflects of daily expe- riences of the Pre Service teacher.	4.65	0.4 8	Extremely Acceptable
2.	Contains activities that are related in the discussion.	4.68	0.4 7	Extremely Acceptable
3.	Uses guided practice and monitoring activities for Pre Service teacher devel- opment	4.46	0.5 7	Extremely Acceptable
4.	Consists of different in- teractive activities to make teaching enjoyable.	4.68	0.5 1	Extremely Acceptable
5.	Comprises with work values for deeper under- standing of the Pre Ser- vice teacher.	4.61	0.5 3	Extremely Acceptable
Over-all	Mean	4.62	0.3 7	Extremely Acceptable

Legend:

- 4.21-5.00 Extremely Acceptable
- 3.41-4.20 Very Acceptable
- 2.61-3.40 Moderately Acceptable
- 1.81-2.60 Slightly Acceptable
- 1.00-1.80 Not Acceptable

Table 4 reflected that activities in the handbook were extremely acceptable with overall weighted mean of 4.62. The material encompasses activities that are congruent with the objectives of the lesson, contains activities that are related in the discussion, uses guided practice and monitoring activities for learner development, consists of different interactive activities to make learning enjoyable, comprises with challenging activities that uses pictures for deeper understanding of the lesson. The standard deviations of 0.48, 0.47, 0.57, 0.51, and 0.53 showed the commonality of the rates of the teachers.

This was supported by Meyer who described the handbook as study guides that may contain exercises which play a major role in the development of concepts or skills (Godoy, 2007). Also agreed by Blunden (2010) activity depends on the motion of every activity having an "objective motive" which corresponds to a definite need of the society, the meaning of all actions ultimately being the meeting of the needs of the whole community. Activities are the instructional methods that serve certain purposes well and can be used to advantage in classroom as supported by Ornstein as cited by (Garantuza 2015).

The activities in this handbook correspond to the needs of the Pre Service Teacher to understand each lesson. Through the different activities, Pre Service teacher are enable to master their lesson and improve their academic performance. This implies that the handbook possessed the appropriate activities, exercises and techniques in teaching and somehow very useful material to use in the class. It will also lessen the teacher's burden in preparing instructional materials for the day's lesson.

Mean Level of the Learning Assessment used in the Handbook

Table 5 presents the Mean Level of Handbook for Pre Service Teacher in terms of Assessment.

It is clearly pointed that in Table 5 the teacher-Pre Service teacher gave extremely acceptable rating with computed over-all weighted mean 4.56 showed that the assessment were sufficient to enhance the Pre Service Teacher' knowledge, contains evaluation suited for the Pre Service teacher, offers practices that are based from the knowledge that they acquired from the lessons, assesses Pre Service Teacher' understanding of the lesson, and provides evaluation that uses critical thinking skills of the Pre Service teacher. The standard deviation 0.48, 0.53, 0.54, 0.53, and 0.57 revealed that the rates of the teacher-Pre Service Teacher were close to one another.

Table 5. Mean Level of the Learning Assessment used in theHandbook

	Assessment	Me	S	
		an	D	Remarks
1.	Sufficient to enhance the Pre service teacher knowledge	4.67	0.4 8	Extremely Acceptable
2.	Contains values suited for the Pre service teach- er.	4.58	0.5 3	Extremely Acceptable
3.	Offers challenges that are based from the knowledge that they ac- quired from the hand- book.	4.51	0.5 4	Extremely Acceptable
4.	Assesses Pre Service Teacher understanding of the handbook.	4.58	0.5 3	Extremely Acceptable

Ov	ver-all	Mean	4.56	0.4 2	Extremely Acceptable
		uses critical thinking skills of the Pre Service teacher.		7	Extremely Acceptable
	5.	Provides evaluation that	4.49	0.5	

Legend:

4.21-5.00	Extremely Acceptable
3.41-4.20	Very Acceptable
2.61-3.40	Moderately Acceptable
1.81-2.60	Slightly Acceptable
1.00-1.80	Not Acceptable

The findings were supported by Medina as cited by Baltazar (2015). He states that the measurement and accuracy or effectiveness of the handbook was observed through proper evaluation or assessment of the learners. Valdez also emphasized that the teachers must evaluate or assess what students have learned based on the criteria set to them to measure the effectiveness of the instructional materials being used to them.

The finding was also supported by (Ornstein 2001) that the essential characteristic of evaluation is judgment. Evaluation is an integral part of any teaching supplemental material such as handbook. Through evaluation, Teacher can determine the level of understanding of Pre Service teacher and can undertake necessary actions towards it. Assessment can be a tool to refine programs and improve Pre Service Teacher learning.

The assessment or evaluation of this material was well designed, planned and strategized to assess and measure the pre Service teacher achievements. Fully constructed assessment will help educators to assess the Pre Service teacher. As observed in the developed handbook, each lesson had evaluation or assessment to measure Pre Service teacher understanding, determine the least learned competencies that will be given intensive program and intervention to improve and enhance Pre Service teacher development. It also tests the effectively of the handbook.

Experts' Ratings on the Acceptability of the Handbook

Mean Level of the Handbook's Usability

Table 6 presents the Mean Level of Handbook for Pre Service Teacher in terms of Usability.

Table 6 shows the ratings of the Pre Service Teacher on the acceptability of the handbook in terms of its usability. The over-all weighted mean 4.52 expresses that the material contains lesson adjusted to the Pre service Teacher background, offers various activities that can be hardily accomplished independently, uses words or language that can easily be understood by the Pre Service teacher, consists of necessary parts to fully understand the lesson and can be a substitute for handbook which may be difficult to process were extremely acceptable. The standard deviation 0.50, 0.63, 0.48, 0.57, and

0.54 showed the commonality of the rates of the experts

Table 6. Mean level of the Handbook's Usability

Usability	Me	S	
5	an	D	Remarks
 Contains work values suited to the Pre Service teacher' background 	4.56	0.5 0	Extremely Acceptable
 Offers activities that can be accomplished by Pre Service teacher. 	4.42	0.6 3	Extremely Acceptable
 Uses PEERPEEC work values that can easily be understood by the Pre Service teacher 	4.65	0.4 8	Extremely Acceptable
 Consists of necessary parts to fully understand the handbook. 	4.49	0.5 7	Extremely Acceptable
 Can be a substitute for books or learners' materi- als which may be difficult to process. 	4.49	0.5 4	Extremely Acceptable
Over-all Mean	4.52	0.3 8	Extremely Acceptable
Legend:			

Legend:

4.21-5.00 Extremely Acceptable 3.41-4.20 Very Acceptable 2.61-3.40 Moderately Acceptable 1.81-2.60 Slightly Acceptable 1.00-1.80 Not Acceptable

Ornstein (1990) proves that usability of such a handbook is its ability to be understood, to administer and score, within budget limitations, if it has to be purchased, suitable to the test conditions and appropriate in degree of difficulty. As he continued, there are different affecting usability: unclear directions, sentence construction and vocabulary, inappropriate level of difficulty, poorly constructed evaluation, ambiguity, improper arrangement of items etc. Every detail of this handbook is taken into consideration for it's effectively.

It only proves that this material was very usable for Pre Service teacher since this material has the ability to be functional and useful in different learning situations and conditions. The usability of handbook instructional materials gazed on the satisfaction and accommodate to the users and to perform the task accurately.

Mean Level of the Handbook's Consistency

Table 7 presents the Mean Level of Handbook for Pre Service teacher in terms of Consistency.

Table 7. Mean Level of the Handbook's Consistency

Consistency	Me	S	
	an	D	Remarks



1.	The objectives are met by the Pre Service teacher.	4.4 2	0.5 3	Extremely Acceptable
2.	The parts of the hand- book are congruent to each other.	4.5 6	0.5 4	Extremely Acceptable
3.	Subtopics are part of the whole course	4.4 2	0.5 7	Extremely Acceptable
Over-all Mean		4.4 7	0.4 7	Extremely Acceptable

Legend:

4.21-5.00 Extremely Acceptable3.41-4.20 Very Acceptable2.61-3.40 Moderately Acceptable1.81-2.60 Slightly Acceptable1.00-1.80 Not Acceptable

Table 7 shows the acceptability of the developed handbook in terms of its consistency. The over-all weighted mean given by the experts was 4.47 and this was interpreted as extremely acceptable. The findings showed that the developed material met the objectives by the lesson discussion, the parts of the handbook are congruent to each other and subtopics are part of the whole course. The standard deviation 0.53, 0.54 and 0.57 showed the close relation to one another.

These findings of the teacher evaluators were supported by De Guzman-Santos (2007) who mentioned that consistency, also known as reliability, is synonymous to dependability and stability. Same with the words of Garcia (2005) when he says that consistency is also related to reliability. Reliability refers to the consistency of results.

Moreover, the concept of learning and pedagogical approaches should be presented through: encouraging the pre Service Teacher active participation in learning, fostering curiosity in the Pre Service teacher, facilitating interaction between Pre Service teacher and teachers and among the Pre Service teacher themselves and all of these are present in the developed handbook.

The consistency of this handbook was considered. The teacher evaluators proves that this material has the agreement and harmony of different topics to one another or as a whole. This results shows this visual technology deals with the firmness of materials used.

Mean Level of the Handbook's Adaptability for Pre Service teacher

Table 8 presents the Mean Level of Handbook for Pre Service teacher in terms of Adaptability.

Table 8. Mean Level of the Handbook's Adaptability for PreService teacher

	A damtability	Mea		
	Adaptability		SD	Remarks
		n	50	
1.	Is versatile that can be used	4.63	0.52	Extremely Ac-
	across the curriculum	4.05	0.52	ceptable
2.	Contains varied challenging			
	tasks that can be done by the			Extremely Ac-
	Pre Service teacher o different	4.58	0.53	ceptable
	aptitude level			
3.	Can be easily managed by all			Extremely Ac-
5.	Pre Service Teacher.	4.44	0.63	5
				ceptable
4.	Provides activities which are			
	adopted to various learning	4 54	4.54 0.50	Extremely Ac-
	style of the Pre Service Teacher.	1.01		ceptable
	-			
5.	Contents are flexible in terms			
	of parts which can easily be		0.57	Extremely Ac-
	added, modified or omitted if	4.46	0.57	ceptable
	necessary			1
	<u>,</u>			Extremely Ac-
Over-all	Mean	4.53	0.38	ceptable
				ceptable

Legend:

http://www.ijser.org

4.21-5.00 Extremely Acceptable

3.41-4.20 Very Acceptable

2.61-3.40 Moderately Acceptable

1.81-2.60 Slightly Acceptable

1.00-1.80 Not Acceptable

As reflected in the Table 8, the average weighted mean of the Pre Service teacher when it comes to adaptability was 4.53 making the handbook extremely acceptable in terms of adaptability. The findings showed that the handbook is versatile that can be used across the curriculum, contains varied challenging tasks that can be done by target pre Service teacher of different aptitude level, can be easily managed by all Pre Service Teacher, provides activities which are adopted to various learning style of the Pre Service Teacher and contents are flexible in terms of parts which can easily be modified. The standard deviation 0.52, 0.53, 0.63, 0.50, and 0.57 showed the close relation to one another. This results was supported by Harris (Google-Ebooks), the adaptability of the handbook is determined by the degree to which the materials can be manipulated by the users to suit their needs and purposes. Users adapt materials when they alter the sequence, content, length, or strategies of the instruction. In the instructional environment, the users may be either teachers or students.

Their needs for adaptation are determined by practical and instructional exigencies considered in developing this handbook. The outcomes attest that the developed handbook has the flexibility in any learning situations.

Mean Level of Manual's Appropriateness for Bread and Pastry Production

Table 9 presents the Mean Level of Handbook for Pre Service Teacher in terms of Appropriateness.

Table 9. Mean Level of Handbook for Pre Service teacher

	Appropriateness		SD	Remarks
IJ	SER © 2020			

		ea n		
1.	Contains facts that are suitable, interesting, cur- rent and updated	4.7 7	0.4 2	Extremely Acceptable
2.	Covers appropriate phrases and illustrations	4.6 3	0.4 9	Extremely Acceptable
3.	Presentations are clear and simple	4.7 0	0.5 0	Extremely Acceptable
4.	Congruent with the objec- tives	4.6 8	0.4 7	Extremely Acceptable
5.	Uses appropriate words fitted for the Pre Service Teacher.	4.6 8	0.5 1	Extremely Acceptable
Over-all	Mean	4.6 9	0.3 5	Extremely Acceptable

Legend:

- 4.21-5.00 Extremely Acceptable
- 3.41-4.20 Very Acceptable
- 2.61-3.40 Moderately Acceptable
- 1.81-2.60 Slightly Acceptable
- 1.00-1.80 Not Acceptable

The Pre Service Teacher reflected in Table 9, which focused on the acceptability of the manual when it comes to appropriateness. They declared the material as extremely acceptable with their over-all mean of 4.69. The standard deviation 0.42, 0.49, 0.50, 0.47, and 0.51 showed the close relation to one another.

The results of evaluating this manual was sustained by Gronbeck et. al. as cited by Garantuza (2015) he mentioned that appropriateness helps meet the expectations imposed by the topics, the users and the situation.

This being said, the developed Handbook for pre Service teacher found appropriate to the current educational system and current educational setting.

The findings showed that the material contains facts that are suitable, interesting, current and updated, it covers appropriate pictures and illustrations, the presentations are clear and simple and congruent with the objectives and uses appropriate words fitted for the Pre Service teacher.

Mean Level of Manual's Aesthetic Value

Table 10 presents the Mean Level of Handbook for pre Service Teacher in terms of Aesthetic Value.

The Pre Service teacher reflected in Table 10, which focused on the acceptability of the manual when it comes to aesthetic value. They acknowledged the material as extremely acceptable with their over-all mean of 4.69. The standard deviation 0.48, 0.49, 0.50, 0.48, and 0.41 showed the closeness of the rates given by the experts. Considering all of these, the developed manual got extreme acceptability when it comes to aesthetic value. This gave indications that the developed material contains visual adjusted on the level of interest, knowledge and skill of the target Pre Service teacher, it has appropriate designs for the Pre Service teacher to be encouraged to listen, answer, and learn, it incorporates interesting illustration suited to the lesson, it uses appropriate text font, size, colorful, attractive and animated, and the material is generally appealing and motivating to attract users and appreciate it that will definitely lead to high performance.

Table 10. Mean Level of Handbook for pre Service Teacher

Aesthetic Value	Me	S	Re-
Trestitette value	an	D	marks
Contains visual adjusted on the			Ex-
level of interest, knowledge and	4.6	0.4	tremely
skill of the Pre Service Teacher.	7	8	Ac-
			ceptable
Has appropriate designs for the Pre			Ex-
Service Teacher to be encouraged to	4.6	0.4	tremely
reflect daily teaching experiences.	1	9	Ac-
			ceptable
Incorporates interesting illustration			Ex-
suited to the handbook.	4.5	0.5	tremely
	8	0	Ac-
			ceptable
Uses appropriate text font, text			Ex-
boxes, size, to enhance the Pre Ser-	4.6	0.4	tremely
vice Teacher interest.	7	8	Ac-
			ceptable
Generally appealing and motivat-			Ex-
ing.	4.7	0.4	tremely
	9	1	Ac-
			ceptable
			Ex-
Over-all Mean	4.6	0.3	tremely
Over-all mean	6	2	Ac-
			ceptable

Legend:

4.21-5.00 Extremely Acceptable

3.41-4.20 Very Acceptable

2.61-3.40 Moderately Acceptable

1.81-2.60 Slightly Acceptable

1.00-1.80 Not Acceptable

The result was supported by Mc Connell (2006) stated the importance of appearance or the aesthetic value of the images that will be presented to the learners during the class discussion that will surely catch Pre Service Teacher attention.

The satisfying appearance of the material was included in developing the handbook to attract users and appreciate the whole period of the teaching-learning process. Through pleasing designs used in the material, Pre Service Teacher enjoy the teaching-learning process. The font size, illustrations, and all essential needs in creating this material were systematically observed during its entire development.

Test of Relationship between the Parts of the Handbook and the evaluation made for Pre Service Teacher.

Table 11 presents Test of Relationship between the parts of the handbook and evaluation of Pre Service Teacher.

The contents of the handbook about Pre Service

Teacher had significant relationship to the usability bearing the result of content with 0.60, objectives with 0.68, and discussions with 0.58, activities with 0.69 and assessment with 0.58. These r-values 0.60, 0.68, 0.58, 0.69, and 0.58 were found significant as attested by the p-values less than 0.000. High relationships were noted on the assessment of the Pre Service Teacher in the usability and the content, objectives, discussions, activities, and assessment of the handbook. This means the developed handbook is very usable for Pre Service Teacher **Table 11. Test of Relationship between the Parts of the**

Handbook and the evaluation made for Pre Service Teacher

	cher				
IV	DV	r-	Degree of	p-	Verbal
		val	Relation-	val	Inter-
		ue	ship	ue	preta-
				p.<	tion
				.05	
Con-	Usabil-	0.6	High Rela-	0.0	Signifi-
tent	ity	0	tionship	00	cant
	Con-	0.6	High Rela-	0.0	Signifi-
	sistency	5	tionship	00	cant
	Adapt-	0.7	High Rela-	0.0	Signifi-
	ability	0	tionship	00	cant
	Appro-	0.6	High Rela-	0.0	Signifi-
	priate-	3	tionship	00	cant
	ness	0.5	High Rela-	0.0	Signifi-
	Aesthet-	4	tionship	00	cant
	ic Value				
Ob-	Usabil-	0.6	High Rela-	0.0	Signifi-
jec-	ity	8	tionship	00	cant
tives	Con-	0.6	High Rela-	0.0	Signifi-
	sistency	6	tionship	00	cant
	Adapt-	0.7	High Rela-	0.0	Signifi-
	ability	1	tionship	00	cant
	Appro-	0.7	High Rela-	0.0	Signifi-
	priate-	1	tionship	00	cant
	ness	0.7	High Rela-	0.0	Signifi-
	Aesthet-	4	tionship	00	cant
	ic Value				
Dis-	Usabil-	0.5	High Rela-	0.0	Signifi-
cussio	ity	8	tionship	00	cant
ns	Con-	0.6	High Rela-	0.0	Signifi-
	sistency	9	tionship	00	cant
	Adapt-	0.6	High Rela-	0.0	Signifi-
	ability	6	tionship	00	cant
	Appro-	0.7	High Rela-	0.0	Signifi-
	priate-	2	tionship	00	cant
	ness	0.5	High Rela-	0.0	Signifi-
	Aesthet-	7	tionship	00	cant
	ic Value				

Ac-	Usabil-	0.6	High Rela-	0.0	Signifi-
tivi-	ity	9	tionship	00	cant
ties	Con-	0.6	High Rela-	0.0	Signifi-
	sistency	9	tionship	00	cant
	Adapt-	0.7	High Rela-	0.0	Signifi-
	ability	2	tionship	00	cant
	Appro-	0.7	High Rela-	0.0	Signifi-
	priate-	1	tionship	00	cant
	ness	0.6	High Rela-	0.0	Signifi-
	Aesthet-	7	tionship	00	cant
	ic Value				
As-	Usabil-	0.5	High Rela-	0.0	Signifi-
sess-	ity	8	tionship	00	cant
ment	Con-	0.7	High Rela-	0.0	Signifi-
	sistency	0	tionship	00	cant
	Adapt-	0.6	High Rela-	0.0	Signifi-
	ability	8	tionship	00	cant
	Appro-	0.6	High Rela-	0.0	Signifi-
	priate-	9	tionship	00	cant
	ness	0.6	High Rela-	0.0	Signifi-
	Aesthet-	2	tionship	00	cant
	ic Value				

The material had significant relationship to the consistency bearing the result of content with 0.65, objectives with 0.66, and discussions with 0.69, activities with 0.69 and assessment with 0.70. These r-values were found significant as attested by the p-values of 0.001. High relationships were noted on the assessment of the trainers and trainees in the consistency and the content, objectives, discussions, activities, and assessment of the visual technology. This means the developed manual deals with the firmness of materials that is very consistent.

The developed handbook had significant relationship to the consistency bearing the result of content with 0.70, objectives with 0.71, discussions with 0.66, activities with 0.72 and assessment with 0.68. These r-values were found significant as attested by the p-values of 0.001. High relationships were noted on the assessment of the Pre Service Teacher in the adaptability and the content, objectives, discussions, activities, and assessment of the manual. This means the developed handbook can be manipulated by the users to suit their needs and purposes.

The assessed material had significant relationship to the consistency bearing the result of content with 0.63, objectives with 0.71, discussions with 0.72, activities with 0.71 and assessment with 0.69. These r-values were found significant as attested by the p-values of 0.001. High relationships were noted on the assessment of the teachers in the appropriateness and the content, objectives, discussions, activities, and assessment of the manual. This means the developed handbook had meet the expectations imposed by the topics, the users and the

situation.

The contents of the handbook about the Developed Handbook in Pre Service Teacher had significant relationship to the consistency bearing the result of content with 0.54, objectives with 0.74, discussions with 0.57, and activities with 0.67 and assessment with 0.62. These r-values were found significant as attested by the p-values of 0.001. High relationships were noted on the assessment of the teachers in the aesthetic value and the content, objectives, discussions, activities, and assessment of the visual technology. This was supported by Bohlin et. al. 2009, validity or acceptability is not an all-ornone characteristic (valid or invalid), and it can never be proved. Rather it varies depending on the extent of the research evidence supporting a test score's validity or acceptability.

This means the developed handbook valued the ability of it to attract users and appreciate it. This proved that both educators and Pre Service teacher may enjoy the entire content of the material that eventually make teaching and learning to successful.

3 SUMMARY

The study was conducted to determine the acceptability of the developed Handbook in Pre Service Teacher. Specifically, this study sought answers to the following questions: (1.) What is the mean level of acceptability of Developed Handbook in Pre Service Teacher in terms of its: content, objectives, discussions, activities, assessment? (2.) What is the mean level of evaluation of the Developed Handbook in Pre Service Teacher with respect to: usability, consistency, adaptability, appropriateness; and aesthetic value? (3.) Is there a significant relationship between the parts of the Developed Handbook in Pre Service Teacher and the evaluation done by the raters?

The subjects of the study were selected Pre Service Teacher in Laguna State Polytechnic University. The respondents used the Checklist for their validation. Weighted mean and Standard Deviation were used in the assessment of Pre Service Teacher respondents on the developed Handbook in Pre Service Teacher as to its usability, consistency, adaptability, appropriateness and aesthetic value.

Based on the statistical treatments done in this study, the following findings were evident:

The over-all weighted mean scores of 4.58, 4.60, 4.64, 4.62, and 4.56 indicates that the level of acceptability of the Developed Handbook in Pre Service Teacher with regards to its content, objectives, discussions, activities, and assessment was **extremely acceptable**.

Likewise, the over –all weighted mean scores of 4.52, 4.47, 4.53, 4.69, and 4.66 indicated that the level of acceptability of the Developed Handbook in Pre Service Teacher in terms of its usability, consistency, adaptability, appropriateness, and

aesthetic value is **extremely acceptable**.

Based on the analysis of data, there was a significant relationship between the parts of the Developed Handbook in Pre Service Teacher and the evaluation made by the raters. The hypothesis stating that there is no significant relationships between parts of the Developed Handbook in Pre Service Teacher and the evaluation done by the raters was therefore rejected.

4 CONLUSION

In view of the aforementioned findings, the study has drawn the following conclusions:

- 1. The developed of Handbook in Pre Service Teacher in terms of content, objectives, discussions, activities and assessment was extremely acceptable.
- 2. The developed Handbook in Pre Service Teacher in terms of usability, consistency, adaptability, appropriateness, and aesthetic values was extremely acceptable.
- 3. The ratings given by the group of evaluators showed that there was a significant relationship between the parts of the handbook and evaluation made by the Pre Service teacher on Handbook for Pre Service Teacher. The hypothesis that there is no significant relationships between the parts of the Handbook for pre Service teacher and the evaluation done by the raters was rejected.

5 RECOMENDATION

In the light of the foregoing findings and conclusions of this study, the following recommendations are offered:

The statistical findings of the study resulted to the following recommendations:

1. The Pre service teacher encouraged to try using developed handbook. They may subject the handbook to revisions, modifications and reconstructions depending upon the needs of their learners.

2. Pre Service Teacher are encouraged to conduct seminars and training programs regarding the handbook for Pre Service Teacher as instructional materials. Using the advantage of hand book in a cheaper cost can be one of the best instructional materials that teachers could use in teaching.

5. Future researchers can further develop and validate other handbook in different trainings.

ACKNOWLEDGMENT

The authors wish to thank A, B, C. This work was supported in part by a grant from XYZ.



REFERENCES

Acero, V. O., Jacvier, E. S. and Castro, H. O. (2007). "Principles of Teaching I", Rex Bookstore

Aloraini, Sara Ibrahim (2005). "Distance Learning" Alretha Press, Dammam, Kingdom of Saudi Arabia

Bailey, F and Fox, P. (1996). Geography Teachers' Hand Book: Geography Association. Sheffield

Balingit, P. et. al. (2008). Fun with Sounds and Letters, B2G2 Enterprises

Barnum, C. M. (2011). Usability Testing Essentials: "Ready, Set...Test!" 1st Edition., El Sevier Publishing Inc.

Boardman, D, (1987). "Maps and Map work". The Geography Association. Sheffield

Bohlin et. al. (2009). "Edpsych Modules", Mc Graw-Hill Companies Inc. New York

Brookfield, S. D. and Preskill, S. (2005) "Discussion as a Way of Teaching: Tools and Techniques for Democratic Classrooms" Copyright 1999, 2005 by John Wiley & Sons, Inc., 989 Market Street, San Francisco, CA 94103-1741

Burden, P. R. and Bryd, "Modern Methods for Effective Teaching" 2nd Edition.

Burke, C. S. Pierce, L. A. & Sales, E. (2006). Understanding Adaptability; A Prerequisite for Effective Performance within Complex, British Library Cataloguing in Publication Data.

Burrow, T. (1986). Horizons in Human Geography. Macmillan: London.

Chorley, R, J. (2006). Models in Geography. Methuen: London.

Cole, G. et. al. (2005). Geography Games in Bulletins of Quantitative Data, University Press Nottingham.

Critto, A. (2000). Consistency; Being Coherent, University press of America 4770 Boton Way Lan Ham. Maryland 20706 Publishing Company

Cruz, et. al. Katha Publishing ISBN: 971-150-0726, Principal of teaching and Instructional Technology

De Guzman-Santos R. (2007). Assessment of Learning, Published by Lorimar Publishing Inc. Cubao Quezon City Du Plessis, J. (2002). In My Classroom: A guide To Reflective Practice. American Institute for Research. SAID

Fang, H., Chen, Z., Multimedia Assisted Case-Based Teaching Application, Qingdao Agricultural University, Qingdao 266109, China

Frank, Valerie Von (2013). The Learning Principal, Vol. 8, No.2 Garcia, C. D. (2005). Principles and Strategies of Teaching: A Skills Approach Books atbp. Publishing House Corp.

Gawronski, B. and Stack, F. (2012). Cognitive Consistency, A fundamental Principle in Social Cognition. A Division of Guilford Publication, Inc.

Gronbeck. B. E. et. al. (2004) Principles Art Types of Speech Communication, 12th Edition, Published by Harper Collins Publishers, New York City.

Holzinger, A., (2007). HCI and Usability for Education and Work, Springer Science and Business Media Copyright

Huba, M.E. & Freed, J.E. (2006). Learner-Centered Assessment on College Campuses: Shifting the Focus from Teaching to Learning. Needham Heights, MA: Allyn & Bacon. (p. 108).

Kearns, P. (2010). Building a learning and Training Culture: The experience of five OECD, NCVER: Adelaide.

Lambert, D. and Balderstone, D. (2000). Geography Assessment. A Guide and Resource for Teachers : Cambridge University Press. London.

Mc Connel, J. J. (2006). Computer Graphics Theory Into Practice, Jones and Bartlett Publishers, Inc.

Nielsen (2006). Coordinating User Interfaces for Consistency,. Morgan Kaufmann Publisher, San Francisco, CA.

Ornstein, A. C. (2001), Strategies for Effective Teaching, Published by HarperCollins Publihers Inc., New York City.

Palomba, C. A. (2007). Scholarly Assessment of Student Learning in the Major and General Education. In T. W. Banta (Ed.), Building a Scholarship of Assessment. San Francisco: Jossey-Bass.

Pareno, E. B. and Jimenez, R. O. (2006). Basic Statistics. A Work-Text C&E Publishing Inc., Manila.

Patin, V, G (2009). Importance of Audio-Visual aids in Teach-

ing Methodology Chandai Campus Press. Karjat.

Rach, M. and Halverson, K., Content Strategy for the Web, Pearson Education Inc.

Ramsey, K. et. al. (2006). Strengthening Learning and Teaching Using ICT.

Roskill South Kindergarten. Sheffield.

Richardson, J. et. al. (2009) Reading to Learning in the Content Areas, Wadsworth, Cengage Learning Publishing.

Robinson, R. (1987). Discussing Photographs, in Boardman, D.(eds) Handbook for Geography Teachers: The GeographyAssociation. Sheffield.

Wilkinson, Jane (2006). Means in Education and Research during the sixty years, the translation by Dabbasi and Salah al-Arab, i 1 Science Press and Publication, Riyadh

Withers (2006). Effective Teaching Strategies. University of Texas. Arlington

IJSER