# DEVELOPMENT AND ACCEPTABILITY OF INSTRUCTIONAL MODULE IN ARNIS IN PHYSICAL EDUCATION COLLEGE FACULTY IN THE UNIVERSITY OF RIZAL SYSTEM

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**Abstract:** This study primarily aimed to assess the development and acceptability of instructional module in arnis in physical education college faculty in the University of Rizal System. The respondents of this study were the twenty (20) physical education instructors of the University of Rizal System.

This study used the descriptive method of research. It involves the description, recording, analysis, and interpretation of the present nature, composition or process of phenomena.

This utilized an adopted modified research-made questionnaire and developed module, which was subjected to face and content validation. It consisted of two parts. Part I dealt with the profile of the respondents in terms of age, sex, campus, and length of service. Part II dealt with the sixteen- item questions with respect to objectives, content, clarity and usefulness.

The validity of the instrument was obtained by consulting an arnis licensed instructor, one (1) teacher and Martial Artist, one (1) instructor with proficiency in Secondary MAPEH and two (2) skilled faculty in University of Rizal System Pililla Campus.

Based on the findings of the study, the researchers generally concluded that: Majority of the respondents are age 31 years old to 40, males, mostly from University of Rizal System Morong Physical Education College Instructor and in service of 15 years and above.

The development and acceptability of instructional module in arnis in physical education in the University of Rizal in terms of age, sex, campus and length of service is well accepted with respect to objectives, contents, clarity and usefulness.

Keywords: Module, Arnis, Self-instructional, Teaching technique

## Introduction

Modules generally begin with a research question to focus student thinking, such as "How?" Students then gain basic information through reading or videos followed by exploratory activities, such as laboratory experiments that help them learn the concepts involved. At the end of the module, students often develop a project to illustrate what they have learned,

such as creating a tornado chamber. Modules may involve the study of any topic, such as computer animation, engineering concepts, general electronics and global warming. Since the module uses active rather than passive learning experiences, students may be more engaged, understand real-world applications of the concepts and further develop higher-order cognitive

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abilities as stated by a publisher and expert on health and wellness, (Kristy Sweet, 2018; Estrella M. 2020).

According to Prof. Sies (2011), curriculum design expert, teaching modules are usually conceptualized as self-contained "units "of content or technique. Modules can also teach techniques. Basically, teaching modules are offered as "models" which have to be adapted by any given instructor who uses them to meet the circumstances of a specific course. They acquire more knowledge before they try out the module.

The above statement implies the importance of the module in teaching field. It indicates all the teaching techniques to be used and can easily be adopted by the students.

According to Riasat Ali (2010), a researcher and author, a module is a specific type of learning resource. Modules are essentially self-contained, self-instructional packages, with learning paced by each student according to his/her individual needs and ability. He also stated that a module covers either a single element of subject matter content or a group of content elements forming a discrete unit of subject matter or area of skill.

Every student can learn even without the presence of a teacher through the use of an instructional module.

According to (Dr. Aguirre, 2013; Fulgado J. St. 2020), an author and researcher, teaching is the systematic presentation of facts, ideas, skills, and techniques to students. Although human beings have survived and evolved as a species because of their capacity to share knowledge, teaching as a profession did not emerge until relatively recently. Teachers always find ways to cater to their own needs as they deliver the lessons assigned to them.

The societies of the ancient world that made substantial advances in knowledge and government, however, we're the ones in which specially designated people assumed responsibility for the education of the young. The success of this tasks, therefore, depends largely on the utilization of appropriate instructional materials: objects that serve as instruments in education and containing information which present systematically a programmed sequence of instruction to students.

The application of these teaching aids entails some inherent limitations such as their availability to the

educational institution and the ability to use them by both teachers and students. With this consideration, the typical instructional material like books is still very much employed in teaching here in the Philippines.

There is now a growing trend in the use of modules as substitute to the traditional text's books.

The above statement implies that instructional module contains specific objectives, content, post-test and pre-test, and activities for the learner to attain the learning skills and knowledge.

Instructional module, in other terms, is an assessment tool for critical thinking and psychomotor skills. Only the teacher can guide the learner to enhance their abilities to apply what they have learned.

According to (Hufana E. et al,2014; Sullano G.M. et al, 2020) a journal educational researcher, the use of modules is an alternative instructional design for the learning and satisfaction of the students. The students work on their own and the teacher's role is to guide and monitor the progress of the students in doing their individual tasks.

With the use of modules, students work on various activities that are interesting and challenging enough to maintain focus and attention.

The use of modules also encourages independent study. It directs students to practice or rehearse information. To gain mastery of the concepts, exercises are given following the progression of activities from easy to difficult. The arrangement of the exercises as such formalizes the level of difficulty that the learners can perform.

It is really important to create or to develop a module with specific topic like module of Arnis because it does not only help learner to increase their retention skills but they can also apply their knowledge that they would gain from the module to real life situation for self-learning.

The Republic Act No. 9850 is an Act Declaring Arnis as The National Martial Art and Sport of the Philippines. The official adaptation of Arnis as the national martial art and sport shall be promulgated by inscribing the symbol of arnis in the official seal of the Philippines Sports Commission and by making it as the first sports competition to be played by participating teams on the first day in the annual Palarong Pambansa.

Arnis was developed by the indigenous populations of the Philippines, who used an assorted range of weaponry for combat and self-defense.

In 1521, equipped with nothing more than bladed weapons and their fearsome arnis abilities, Filipino islanders defeated Ferdinand Magellan's armored, musket-bearing Spanish conquistador forces when they tried to invade.

Having been handed down from generation to generation for centuries, the discipline hones the skill, speed, accuracy, and agility of its practitioners.

Arnis is officially recognized by the Department of Education (2009) as a sport. The issued DECS Order No. 58 S. 1990 known as the guidelines and standards for the college of physical education included Arnis in the course individual/dual sports program of the service of physical education.

According to Empleo-Pacres JG. (2014), Asst. Professor in UP Cebu, Physical education instructors have shown deepening interest in learning-oriented and student-centered approach, which often fall under the umbrella concept of constructivism.

That learner's construct their own knowledge, organizing them and categorize information such a way that student search, manipulate, explore and investigate.

That is why in this study of developing a module the researchers intentionally give emphasis on both aspects; conceptually and technically.

The researchers took opportunity to conduct this study for several reasons. First, they want to provide a comprehensive module in teaching arnis Second, the researchers want to prove that having module is more convenient than enrolling in an expensive martial arts school to learn about Arnis. Third, to assess if module is effective for teachers and learning arnis. Lastly, to boost the interest of every individual through instructional module.

## **Scope and Limitations**

This study was conducted in 2018 as undergraduate thesis, to determine the development and acceptability of instructional module in arnis in Physical Education College Faculty in the University of Rizal System.

The respondents considered in the study are the Physical Education Professors.

The questionnaire-checklist was the instrument used to gather data and to determine the development and acceptability of Instructional Module in Arnis in Physical Education College faculty in the University of Rizal System.

## **Theoretical Framework**

The study was anchored from Jerome Bruner's Constructivism Learning Theory, Discovery Learning Approach which states that the teachers plan, arranges activities in such a way that student search, manipulate, explore and investigate.

According to this theory, Bruner proposes that learner's construct their own knowledge and do this by organizing and categorizing information using a coding system. Bruner believed that the most effective way to develop a coding system is to discover it rather than being told it by the teacher. The concept of discovery learning implies that students construct their own knowledge for themselves (also known as constructivist approach). The role of the teacher should not be to teach information by rote learning, but instead to facilitate the learning process. This means that a good teacher will design lessons that help students discover the relationship between bits of information. To do this, a teacher must give students the information they need, but without organizing for them. The use of the spiral curriculum can aid the process of discovery learning. The outcome of cognitive development is thinking. The intelligent mind creates from experience "generic coding systems that permit one to go beyond the data to new and possibly fruitful predictions".

The study is relevant to discourse in developing instructional module that involves Jerome Bruner's Theory. This can also be integrated in the teaching of arnis for college students at the University of Rizal System. This includes the goals, objectives and activities that will help the students understand and solve problems.

# Methodology

The researchers submitted their proposed title, planned, formulated, developed the problem of the study,

gathered related literature, and developed Chapter 1. Identified the research design, the setting, subject, and procedure of the study and choose the statistical treatment. Next were revisions of Chapter 1 and 2.

The researchers underwent colloquium and defended the study before the panel sets. The suggestions given by the panelists were accepted for the development of the study.

The researchers created a questionnairechecklist and identified the five experts to validate the questionnaire, before they administered the questionnaires among the physical education professors of the university.

In terms of objectives, (1) Objectives are clear and easy to understand. (2) Objectives are consistent with the learning content. (3) It is relevant and appropriate to the level of College students. (4) It is relevant and appropriate to the level of College students.

In terms of content, (1) The subject matter provides efficient activities and exercises to enhance understanding of content. (2) The illustrations are well presented. (3) The illustrations are relevant and attractive by the students (4) The learning content is suitable to the level of the students.

In terms of Clarity, (1) Directions are clear and easy to understand. (2) The content of the manual presented in simple language. (3) The information's are to the level of the students. (4) The objective is applicable the level of the students.

In terms of usefulness, (1) The instructional material significantly useful to the user. (2) The activities provided help—students to develop knowledge and skills. (3) Concepts and principles can learn through the use of instructional materials. (4) Stimulate the curiosity of the in every activity.

Questionnaire-checklist was retrieved, and the data are tallied, analyzed and interpreted. They developed summary of findings, conclusion and recommendations and the manuscript was then ready for the final oral defense.

As part of the output, the researchers created a printed module for the dissemination of information about arnis and also for the professors to have guides and "how-to" in doing the skills in arnis.

The module contains four lessons, the history of arnis, General warm up and stretching and cooldown exercises, fundamental skills, facilities and equipment, and benefits of practicing arnis. A pre-test and post-test with ten to fifteen multiple choices type of questions is used to assess the learners of the module is also part of it. Pictures and illustration of the skills is presented step by steps for the readers clear comprehension of its skill. The authors are the one shown in the photos used in the module to emphasize that authors are knowledgeable about the skill of arnis.

# **Body/Findings**

**Problem number 1.** How is the instructional module in arnis developed?

In the development of Instructional module in arnis, the first thing that the searchers did was to identify the different elements that comprise a module. Next, they consider the CHED memo no. 80, series of 2017, in which the new curriculum of BPED is anchored, and looked for the specific topic that arnis is related to and that is combative sports and martial arts. It is indeed included in the syllabus of Physical Education that could develop students' competencies such as self-discipline, self- control, critical thinking, psychomotor skills and love for sports. They also searched different books like MAPEH for Grade 7, Physical Education Grade 7 Learner's Material (Units 1 & 2) and Arnis Fighting Technique-Detailed Guide as reference for the content of the module as well as information gathered from the internet were used.

Instructional module in arnis is the title decided by the researchers for the module that consist of five lessons. Every lesson, the researchers created activities that are aligned to the formulated objectives. The pre-test and post-test were made based from the content of every lesson. There are five validators with their respective specialization who were chosen to validate the developed module. Napoleon R. Dilidili III, a license instructor of modern arnis, Jackilyn Kate Mayorca MAT, physical education instructor, Aristleo G. Palero, Asst. Prof II and a martial arts practitioner, Elenita P. Patenia, Asst, Professor III as language critique and Ma. Luisa A. Atis as expert professor in the field of teaching. Each

validator has their corrections and suggestions to the developed module. After revising and following each suggestions and corrections the developed instructional module is finally done and the researchers started to conduct the study.

**Problem number 2.** What is the profile of the PE professors' respondents in terms of sex, age, length of service?

Table 2

Distribution of the Respondents in terms of Age

Age	f	%	Rank
30 – below	1	5	4
31 - 40	6	30	1
41 - 50	5	25	2
51 - 59	4	20	3.5
60 - above	4	20	3.5

Table 2 shows the frequency and percentage distribution of the respondents in terms of age.

As shown in the table, professors who were 31-40 years old has a frequency of 6 with a percentage of 30. The professors aged 41-50 years old has a frequency of 5 with a percentage of 25, the professors aged 41-50 years old has a frequency of 5 with a percentage of 25, the professors of aged 51-59 years and 60 above has a frequency of 4 with a percentage of 20, and the professors aged 30 below has a frequency of 1 with a percentage of 5.

This study implies that majority of the Physical Education faculty are aged 31-40.

Table 3
Distribution the Respondents in terms of Sex

f	%
11	55
9	45
20	100%
	11 9 20

Table 3 presents the frequency and percentage distribution of the respondents in terms of sex.

As shown in the table, male physical education (P.E) college faculty has a frequency of 11 or 55 percent while the female faculty have a frequency of 9 or 45

percent. It implies that there are more male than female professors.

This study implies that majority of faculty are male.

Table 4
Distribution the Respondents in terms of Campus

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URS CAMPUSES	f	%	Rank
Angono	2	10	3.5
Antipolo	1	5	7.5
Binangonan	2	10	3.5
Cainta	1	5	7.5
Cardona	1	5	7.5
Morong	7	35	1
Pililla	1	5	7.5
Rodriguez	1	5	7.5
Tanay	3	15	2
Taytay	1	5	7.5
TOTAL	20	100	

Table 4 presents the frequency and percentage distribution of the respondents in terms of campus.

As shown in the table, URS Angono and URS Binangonan has a frequency of 2 or 10 percent, URS Antipolo, URS Cainta, URS Cardona, URS Pililla,, URS Rodriguez and URS Taytay has a frequency of 1 or 5 percent, URS Morong has a frequency of 7 or 35 percent and URS Tanay has a frequency of 3 or 15 percent.

This study implies that most of the physical education (P.E) college faculty are from URS Morong with a frequency of 7 or 35 percent.

Table 5
Distribution the Respondents in terms of
Length of Service

Length of Service	f	%	Rank
15 years and above	11	55	1
10-14 years	2	10	3.5
6-9 years	2	10	3.5
5 years and below	5	25	2
TOTAL	20	100.00	

Table 5 shows the profile of the respondents in terms of length of service.

The table revealed that 15 years and above has a frequency of 11 with a percentage of 55. In 10-14 years of service has frequency of 2 with a percentage of 10 also the 6-9 years of service has a frequency of 2 with a percentage of 10 and in 5 years and below has a frequency of 5 with a percentage of 25.

This study implies that 55 percent or 11 out of 20 faculty served 15 years above.

**Problem Number 3.** What is the level of the development and acceptability of Instructional Module in Arnis in Physical Education College Faculty in the University of Rizal System?

Table 6

Composite Table of the Computed Weighted Mean and Rank on the development and acceptability of Instructional Module in Arnis in Physical Education College Faculty in the University of Rizal System in terms of Age

EACTOR	3	30 BELC	)W		31 - 40		41 - 50			
FACTORS	Wx	R	VI	Wx	R	VI	Wx	R	VI	
OBJECTIVES	4.75	2	VMA	4.83	4	VMA	4.96	2	VMA	
CONTENT	4.75	2	VMA	4.96	1.5	VMA	4.9	3.5	MA	
CLARITY	4.75	2	VMA	4.96	1.5	VMA	4.9	3.5	MA	
USEFULNESS	4.5	4	VMA	4.87	3	VMA	5	1	VMA	
AVERAGE W <b>x</b>	4.68		VMA	4.91		VMA	4.94		VMA	

FACTORS		51 - 59	)	6	60 ABO	VE	AVERAGE			
FACTORS	Wx	R	VI	Wx	R	VI	Wx	R	VI	
OBJECTIVES	4.65	4	VMA	4.75	4	VMA	4.79	4	VMA	
CONTENT	4.75	2.5	VMA	4.92	1.5	VMA	4.86	1	VMA	
CLARITY	4.8	1	MA	4.84	3	VMA	4.85	2	VMA	
USEFULNESS	4.75	2.5	VMA	4.92	1.5	VMA	4.81	3	VMA	
AVERAGE W <b>x</b>	4.74		VMA	4.86		VMA	4.83		VMA	

Legend: VMA- Very Much Acceptable MA- Much Acceptable

Table 6 presents the composite table on the level of development and acceptability of Instructional Module in Arnis in Physical Education College Faculty in the University of Rizal Systemin terms of age.

It can be interpreted that in terms of age, content ranked first which is the highest with an average weighted mean of 4.86 and is verbally interpreted as very much acceptable. And the lowest is the objectives with an average weighted mean of 4.79 and are verbally interpreted as very much acceptable.

This study implies that the respondents in terms of age, objectives, content, clarity and usefulness are very much accepted.

Table7

Development and Acceptability of Instructional Module in Arnis in Physical Education College Faculty in the University of Rizal System in terms of Sex

Factors		Male			Female			Average	e
	Wx	R	VI	Wx	R	VI	Wx	R	Wx
Objectives	4.80	4	VMA	4.81	4	VMA	4.81	4	VMA
Content	4.91	1	VMA	4.84	3	VMA	4.88	1.5	VMA
Clarity	4.87	2.5	VMA	4.89	1	VMA	4.88	1.5	VMA
Usefulness	4.87	2.5	VMA	4.86	2	VMA	4.87	3	VMA
Average Wx	4.86		VMA	4.85		VMA	4.86		VMA

**Legend:** VMA- Very Much Acceptable MA- Much Acceptable

Table 7 presents the composite table on the development and acceptability of Instructional Module in Arnis in Physical Education College Faculty in the University of Rizal Systemin terms of sex.

It can be interpreted that in terms of sex, content and clarity are ranked 1.5 with an average weighted mean of 4.88which is the highest and is verbally interpreted as very much acceptable. And the lowest is the objectives ranked fourth with an average weighted mean of 4.81 and are verbally interpreted as very much acceptable.

The result showed that in terms of sex, all of the factors are very much acceptable, among the factors the content and clarity ranked first.

Table 8

Composite Table of the Computed Weighted Mean and Rank on the level of acceptability of developed Instructional Module in Arnis in Physical Education College Faculty in terms of Campuses

	WX	R	VI	WX	R	VI	WX	R	VI	WX	R	VI	
FACTORS	Al	NTIPO	LO	A	ANGONO			MORONG			PILILLA		
OBJECTIVES	4.5	4	MA	4.88	2	VMA	4.64	4	VMA	5	2.5	VMA	
CONTENT	4.75	2.5	VMA	4.88	2	VMA	4.78	2	VMA	5	2.5	VMA	
CLARITY	4.75	2.5	VMA	4.88	2	VMA	4.79	2	VMA	5	2.5	VMA	
USEFULNESS	5	1	VMA	4.75	4	VMA	4.79	2	VMA	5	2.5	VMA	
AVERAGE	4.75		VMA	4.85		VMA	4.75		VMA	5		VMA	
	RO	DRIG	UEZ	BINANGONAN		CAINTA			CARDONA				
OBJECTIVES	5	2.5	VMA	5	2.5	VMA	4.5	4	MA	5	2.5	VMA	
CONTENT	5	2.5	VMA	5	2.5	VMA	5	1.5	VMA	5	2.5	VMA	
CLARITY	5	2.5	VMA	5	2.5	VMA	5	1.5	VMA	5	2.5	VMA	
USEFULNESS	5	2.5	VMA	5	2.5	VMA	4.25	3	VMA	5	2.5	VMA	
AVERAGE	5		VMA	5		VMA	4.69		VMA	5		VMA	

	WX	R	VI	WX	R	VI	WX	R	VI
FACTORS	TANAY				TAYTA	Y	AVERAGE		
OBJECTIVES	х w	R	VI	х w	R	VI	ż w	R	VI
CONTENT	4.92	2	VMA	5	2.5	VMA	4.84	4	VMA
CLARITY	4.83	3.5	VMA	5	2.5	VMA	4.92	2	VMA
USEFULNESS	4.83	3.5	VMA	5	2.5	VMA	4.93	1	VMA
AVERAGE	5	1	VMA	5	2.5	VMA	4.88	3	VMA

**Legend:** VMA – Very Much Acceptable

MA- Much Acceptable

Table 8 shows the composite table on the development and acceptability of Instructional Module

in Arnis in Physical Education College Faculty in the University of Rizal System in terms of campuses.

It can be interpreted those in terms of campuses, both content and clarity ranked first with an average weighted mean of 4.93 which is the highest and are verbally interpreted as very much acceptable. And the

lowest is the objectives ranked fourth with an average weighted mean of 4.84 and are verbally interpreted as very much acceptable.

This study implies that the respondents in terms of campuses, objectives, content, clarity and usefulness are very much accepted. Among the factors content and clarity ranked first.

Table 9
Composite Table of the Computed Weighted Mean and Rank on the development and acceptability of Instructional Module in Arnis in Physical Education College Faculty in the University of Rizal System in terms of Length of service

FACTORS	5 YEARS BELOW		6-9 YEARS		10-14 YEARS			15 YEARS AND ABOVE			AVERAGE				
	Wx	R	VI	Wx	R	VI	Wx	R	VI	Wx	R	VI	Wx	R	VI
OBJECTIVES	4.9	2.5	VMA	5	1.5	VMA	4.88	3	VMA	4.73	4	VMA	4.88	3	VMA
CONTENT	4.9	2.5	VMA	4.88	3.5	VMA	4.88	3	VMA	4.87	3	VMA	4.88	3	VMA
CLARITY	4.9	2.5	VMA	4.88	3.5	VMA	4.88	3	VMA	4.86	2	VMA	4.88	3	VMA
USEFULNESS	4.9	2.5	VMA	5	1.5	VMA	5	1	VMA	4.80	1	VMA	4.93	1	VMA
AVERAGE Wx	4.9		VMA	4.94		VMA	4.91		VMA	4.82		VMA	4.89		VMA

**Legend**: VMA – Very Much Acceptable MA- Much Acceptable

Table 9 presents the composite table on the development and acceptability of Instructional Module in Arnis in Physical Education College Faculty in the University of Rizal Systemin terms of length of service.

It can be interpreted that in terms of length of service, usefulness ranked first with an average weighted mean of 4.93 and is verbally interpreted as very much acceptable. And the lowest are objectives, content, and clarity ranked third with an average weighted mean of 4.88 and is verbally interpreted as very much acceptable.

This study implies that the respondents in terms of age, objectives, content, clarity and usefulness are very much accepted.

### Table 10

General Composite Table of the Computed
Weighted Mean and Rank on the development and
acceptability of Instructional Module in Arnis in
Physical Education College Faculty in the University
of Rizal System in terms of Age, Sex, Campuses and
Length of Service

FACTORS	AVERAGE							
FACTORS	Wx	R	VI					
OBJECTIVES	4.82	4	VMA					
CONTENT	4.88	2	VMA					
CLARITY	4.89	1	VMA					
USEFULNESS	4.87	3	VMA					
AVERAGE	4.87		VMA					

**Legend**: VMA – Very Much Acceptable MA- Much Acceptable

Table 10 shows the composite table on the development and acceptability of Instructional Module in Arnis in Physical Education College Faculty in the University of Rizal Systemin terms of sex, age, length of service and campuses.

It can be interpreted that in terms of sex, age, length of service and campuses, clarity ranked first with an average weighted mean of 4.89 and verbally interpreted as very much acceptable. And the lowest is the objectives which ranked fourth with an average weighted mean of 4.82 and verbally interpreted as very much acceptable.

This study implies that the respondents in terms of sex, age, length of service and campuses, objectives, content, clarity and usefulness are very much accepted. Among the factor's clarity ranked first.

# **Conclusions**

Based on the findings of the study, it can be concluded that;

The development and acceptability of Instructional Module in Arnis in Physical Education College Faculty in the University of Rizal System is very

well accepted with respect to objectives, content, clarity, and usefulness.

#### Recommendations

Based on the finding and conclusion of the study, the following recommendations were hereby presented;

1. The University of Rizal System should encourage the faculty who are teaching PE courses to integrate the Bruner's constructivism Learning theory in creating a module.

- 2. The University of Rizal System should reproduce the printed instructional module in arnis for URS college faculty members teaching PE courses.
- 3. The University of Rizal System should support and encourage faculty who teach PE courses to have further study, including the stake holders, in the same theme in the context of online class in the time of pandemic.

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