Investigation of Cognitive and affective Attitude of Teachers toward Research and their behavioral Intention to conduct Research in the Future

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Abstract— The study wants to determine the relationship between the cognitive and affective attitudes of teachers toward research and their intention to conduct research. To support and strengthen the study, theories on human attitude, human behavior, the relationship between attitude and behavior, the nature of academic research and related studies were discussed. The study used descriptive correlational method of research design and aided by fact finding inquiry. The population of the study were 150 teachers of Divine Word Colleges in Ilocos Region. Validated questionnaires were used to gather the data and to treat the data statistically, mean, and Pearson r were used. Mean was to measure the level of cognitive and affective attitude of teachers toward research and their behavioral intention to conduct research in the future and Pearson r was used to determine the correlation between cognitive and affective attitude toward research and intention to conduct research. The study found that teachers have high attitudes on positive cognition and affection toward research and moderate level on negative cognition and negative affection toward research. Both, cognitive and affective attitude toward research (positive and negative components) correlates to the behavioral intention to conduct research. Thus, the study recommends to strengthen cognitive and affective attitude toward research and minimize their negative attitude toward research through continuous training on research methodology.

Keywords— Attitude, cognitive and affective attitude, behaviour, behavioural intention.

I. INTRODUCTION

Research has been considered as one of the indicators of quality education. Quality and innovative instruction should be the output of research. Just like in other industries, innovative product or services are the product of research. It is the basic reason of why every industry or business must have research unit. It is based on the belief that there is nothing new or new development as coming out of the blue without research. Research based firms, or research-based universities can make a difference from others that are not. It has been recognized that product innovation or teaching innovation is depending on research. Because of innovation in many aspects of life, human beings cannot enjoy the present state of life with its newest technology without research. Life becomes so easy and comfortable because of research.

Knowing its importance to human development and human welfare, research becomes indispensable in all kind of services including the school. In fact, school should be research-based because it is where the innovations are discovered and it is where research is learned. Therefore, schools are considered as training ground for all future practitioners and innovators. In this case, the responsibility of schools is to equip everyone the knowledge and skills on how to conduct research. In order to achieve this purpose, the duty of teachers is not only to disseminate theory of research but to teach how to do it. In this case, they should know how to conduct research and only then, they can inspire students, the future innovators to conduct research.

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But sad to say that many are still afraid of research, finding it hard or difficult (Monir, and Bolderston (2009), Oguan, Bernal and Pinca3 (2014). Studies have shown that teachers and students altogether find it difficult to conduct research. Though some have positive attitude toward research but many of them have negative attitude toward research. Within this reality, the current study would like to go deeper behind the positive and negative attitude toward research of teachers and find out if this attitude affects their plan to conduct research.

The Objective of the Study
The study intends to find out the reasons why teachers are not conducting research. The result of the study will be used as sources of decision making in relation to introducing new policies in order to motivate teachers to conduct research.

Theoretical Framework
Understanding Human Attitude
Attitude is an individual’s disposition to react to certain object, behavior, person, institution, event or other discriminable aspect of the individual’s world (Ajzen, 1993). Ajzen contended that there can be a lot of definitions of attitude from different theorists, however, there is a common agreement among them that attitude has its evaluative dimension (Bem, 1970, Edwards, 1957, Fishbein & Ajzen, 1975). In the sense that dimensions of attitude can be measured and evaluated. Ajzen (1993) recognized that though attitude is inaccessible to observations because it is within the person’s mind or it is latent but it can be measured through the reaction or responses of the person toward the object of the attitude which may be favorable or unfavorable toward the object, persons, institution, events or situations. There are three categories of responses or reactions and they are cognitive, affective and conative responses (Allport, 1954, Hilgard, 1980, Rosenberg & Hovland, 1960). These are manifestations of salient or latent attitude which is unobservable (Ajzen, 1993). Cognitive component refers to the beliefs and thoughts about the subject, the object, the person, the institution, the event, etc. It is about the perception and information of the person toward the subject, object or the person. Affective component of attitude is an emotional reaction toward the subject, object or the person. It is how one feels when he/she is confronting the subject, object, the person or the institution. It is still a psychological reaction which may be verbal or nonverbal expression of feelings toward the subject, object, the person or the institution. Such reaction may be negative or positive. While conative component of attitudes is the effect of the attitudes toward a behavioral intention or how the attitude affects one’s behavior. These may include plans, intentions and commitments to a planned behavior. These are the three components of attitude and therefore, attitude is a multidimensional construct.

The question can be raised in relation to the origin of attitude: where does it come from? According to Ajzen (1993), a person develops such attitude perhaps as a result of watching television program or may be other kind exposures or experiences. But Abun (2017) went deeper to answer that question in relation to his argument on how to solve environmental problem. According to him, environmental problem is a result of human behavior and destructive human behavior is originated from the culture and thus solving environmental problem is to revisit the culture that have influenced the mind of people toward the environment. He contends that attitude is originated from the culture where the person is raised. His argument was based on the ideas of anthropologists such as Donald (2002), Hofstede as cited by Brown (1995). Donald (2002) argued that culture is playing important role on our brain functioning and even brain structure. She has pointed out that language has the biggest impact on brain structure but that culture influences brain functioning to a great extent as she writes:

The social environment includes many factors that impinge on development, from bonding and competitive stress to the social facilitation of learning. These can affect brain functioning in many ways, but usually they have no direct influence on functional brain architecture. However, symbolizing cultures own a direct path into our brains and affect the way major parts of the executive brain become wired up during development. This is the key idea behind the notion of deep enculturation... This process entails setting up the very complex hierarchies of cognitive demons (automatic programs) that ultimately establish the possibility of new forms of thought. Culture effectively wires up functional subsystems in the brain that would not otherwise exist.

The idea of culture and its effect on brain functioning indicates the power of culture over the formation of the mind and ideas of people about everything around them.
Donald’s view is similar to what Hofstede as cited by Brown (1995) as he argued that culture is the collective programming of the human mind that distinguishes the members of one human group from those of another. Hofstede pointed out clearly that that culture is reflected in how people think, how people view things or attitude. To elaborate the idea of Hofstede, Amstrong (1996) contend that there is a relationship between cultural dimensions and ethical perceptions. In other words, ethical attitude is formed by a particular culture. One perceives certain object, subject, person or institution to be negative or positive, favorable or not favorable because he/she has been taught by the culture of a particular society where he/she is living. What he/she learns from the culture will be his/her ideas about certain subject, object or events, etc. that he/she will encounter.

Understanding Human Behavior
To understand the root cause of human behavior, it would be helpful to revisit the idea of William James, a pragmatist, a behavioral psychologist, as cited by Lawler (2006). James is against the idea that all human behavior is shaped by experience but it is shaped by the brain or the mind. Though James recognized that humans are ruled by their instincts as other animals do, but what make humans behave the way they do and how they behave the way do is different from animals. James went on to explain that though humans are animals with the most instincts but they will never react automatically to the instincts, the way inferior animals do because humans have the mind or the reason. It is the role of reason. Reason has to create another impulse to neutralize another impulse.

To complicate further the root cause of human behavior, Ridley (2011) turns his attention to the nature versus nurture debate to bring the first popular account of the root of human behavior with this unique question: “what makes us who we are?” This question is related to the main question of why humans behave the way they do and how they behave the way they do. The immediate answer to these questions may point to the very essence of human being that differentiates it from animal which is the reason or the mind. But Nohria, sandelandsand Lawrence (2003), instead of pointing at reason or mind as the source of human behavior, she pointed out four drives or qualities that shape human behavior. According to her, these drives or qualities are important to understand why humans behave the way they do. These qualities or drives are conflicting and they do not work automatically. They force us to make deliberate decisions and choices with certain degree of liberty. According to this argument, drives or qualities that shape our human behavior are first, drives to gain object, bodily and emotional experience, maintaining life and improving one’s social status in relation to others. Second, drive to create relations, to belong to a group and create a long terms relationship and caring for others. Third, drive to gain insight including understanding one’s self and one’s surroundings. Fourth, drives to control and defend. These are the qualities for us to understand why we behave in a certain way. In other words, human behavior is driven by purposes to be accomplished, not just like other animals. The later argument brings us to the theory of planned behavior of Ajzen (1985, 1987, Ajzen & Madden, 1986). Theory of planned behavior (TPB) is an extension of theory of reasoned action to explain the relationship between attitudes and behavior within the human action. Reasoned Action Theory (RAT) argues that reason for action will predict how individual will behave based on their pre-existing attitude and behavior intention. The theory argues that an individual will behave based on the expected outcome the individual expects to achieve as a result of performing such behavior (Fishbein &Ajzen, 1975, Ajzen & Fishbein, 1980). If RAT focuses on the reason, while the central attention of Theory of Planned Behavior or TPB is the individual’s intention to perform a given behavior. There are three independent determinants of intention. First determinant is the attitude toward the behavior. At the level, the person who perform certain behavior must evaluate if the behavior in question is favorable or not favorable. Second determinant is social factor or subjective norms. At this level, the person who perform the act must evaluate if the society is in favor or not in favor of such act or behavior. Third is the novel antecedence of intention. This refers to the perceived ease or difficulty of performing the behavior and it is assumed to reflect past experience on performing the behavior and anticipated impediments and obstacles in performing the behavior. It suggests that the more favorable the attitude and subjective norms with respect to a behavior, and the greater the perceived behavioral control, the stronger should be an individual’s intention to perform the behavior under consideration (Ajzen, 1993).

In short, the theory of planned behavior argues that the stronger people’s intention to perform certain behavior, or the stronger people’s intention to achieve their behavioral goals the more likely they engage in such behavior.
However, Ajzen (1993) cautions us that the degree of success does not depend only on intention but there are circumstances that may prevent us to realize the behavior in consideration and these may include opportunities and resources such as time, money skills, and other necessary requirement to perform such behavior. These factors represent the actual control over the behavior. Beyond that, since TPB is concerned with the perceived behavior, the particular perceived behavior may not be carried out due to lack of information about the behavior, the requirements have changed and when other unpredicted elements have entered into the situation.

**Attitude and Behavior**

In psychology, an attitude is defined as a set of emotions, beliefs, and behaviors toward a particular object, person, thing, or event (Banaji & Heiphetz, 2010). It is a learned tendency to evaluate or perceived things in a certain way and therefore one can have positive or negative evaluation or perception of certain objects, experiences, practices, etc. The evaluation or perception of a person toward certain object or experience is not isolated from experiential exposure. It has been a common understanding and agreement that attitudes are results of experience, upbringing/education and social interactions. Experience or upbringing or education can have powerful influence over attitudes. However, since attitude is not independent from environment or experience, thus it is also accepted that attitudes are dynamics in the sense that it is enduring and at the same time it can also be changed (Cherry, 2019).

Most of the early researches on attitude accepted as a given that attitude influenced the behavior. The background of those studies was influenced by the ideas of the early social psychologists that attitude is a key to understand human behavior (Thomas & Znaniecki, 1918, Watson, 1925). This idea was taken for granted for quite some time until the time that later studies proved otherwise. Some investigators challenged the earlier assumption through field studies on the relationship between attitude and behavior. Their studies found that there was no correlation or little correlation between attitude and behavior. For example, Corey (1937), Freeman & Ataoev, (1960) as cited by Ajzen (1993) conducted a study on the college students’ attitude at the beginning of the semester and provide multiple opportunities to cheat by allowing them to score their own test. His test found out that there was no correlation between students’ attitude and their cheating behavior (Ajzen, 1993, p.74). Even later studies supported the study of Corey (1937). For example, Dean (1958) conducted a study on attitude toward labor unions and participating in labor union meetings, and his study found no correlation. The similar study was also done by Wicker and Pomazal, (1971) on the attitude toward participating a subject in social psychology and actual participation in social psychology class. Their studies found no correlation. The finding of later studies particularly the study of Wicker (1969) seem discouraging the original idea of early social psychologists that attitude is the key to predict behavior. The results of those studies have questioned the importance of studying the personal disposition and behavior. By 1970s most social psychologists accepted the negative verdict of the relation between attitude and behavior. Instead of studying the relation between attitude and behavior, they encouraged the study of social context and norms as determinant factor in predicting the behavior or human action (De Fleur & Westie, 1958, Deutscher, 1969). However, given those negative result, other social psychologists, particularly Ajzen and Fishbein (1977, 2000,) maintain that attitude is still the key to predict the behavior (Allport, 1968). Allport (1968) still considered attitude to be “the most distinctive and indispensable concept in contemporary American Social Psychology” (p. 59). Other social psychologists who were against the negative finding of early research argued that the inconsistencies are not with the attitude and behavior itself but it may happen because of many factors such as response biases, multidimensionality of attitudes, and moderating variables. In terms of response biases, they argue that there is a tendency to give socially desirable responses on attitude and personality inventories and along this point, they recommended the need to use attitude measures that are less subject to systematic biases (Ajzen, 1993). In relation to multidimensionality of attitudes, they pointed out that most attitude measurement technique resulted in a single score representing the respondent’s overall positive or negative reaction to the attitude object. According to them, focus on a single dimension did not do justice to the complexity of the attitude construct (Allport, 1935). Single construct is against attitude as multidimensional construct which include cognition, affective and conation component (Rosenberg & Hovland, 1960). Lastly, the inconsistencies are due to moderating variables. They argued that the degree of attitude behavior consistency was assumed to be moderated by factors related to the person performing the behavior such as self-awareness, self-efficacy, self-monitoring,
experience, self-confidence, even feeling and lack of information or knowledge. They also pointed out to the situation as moderating variable such as time pressure or circumstances surrounding performance of the behavior (Ajzen, 1993).

The recent studies conducted by Abun (2018) and Fitzsimmons and Douglas (2005) confirmed the consistency of attitude and behavior. Abun (2018) measured the relationship between environmental attitude and environmental behavior and the study found that environmental attitude predicted the environmental behavior of the students and employees toward the environment. Further, he also conducted a study on the entrepreneurial attitude and future intention to establish a business and the finding also indicated a correlation. The study of Fitzsimmons and Douglas (2005) also found that entrepreneurial attitudes are significant in explaining career decision in the future and their intention to go into business.

Research in Education
Life could not move far as we have been enjoying at the present without research. Life becomes better and pleasurable because of research. We could not enjoy riding on the airplane, car, motorcycle, ship, cellphone without research. Life becomes easier, work becomes easier and faster, travel becomes shorter, products keep on changing because of research. Along with this development, we cannot deny the fact that what makes the difference between one country from another, one school from another, one business from another, one teacher from another is research. America is faster in terms of technological development compared to other countries is because of research. Research and development are two inseparable topics because one cannot talk about development without research. Along this line, in 1965, David Novic as cited by Godin (2003) and Lane (2010) suggested, “we should stop talking about research and development as though they were an entity and examine research on its own and development as a separate and distinct activity”. In short, the primary role of research is to enable man to have a better life (Ariola, 2006).

Research becomes so important in human development and it plays important role in our daily life. We may cite what Zarah (2019) had said about the importance of research which may include building knowledge and facilitating learning. It is a process of collecting and analyzing information about problem on hand in order to gain understanding of the problem under study (Swindoll, 2012). This concept alone gives us broader importance of research that through research we have gained knowledge, new understanding about many issues of life and help us make decisions or solve problems effectively. Practically all aspects of problems of life and its development can be solved by research. Research makes life easier and better. Thus, research is everyone’s business. But in academic context, research is not so simple. Research becomes academic term that attach to the meaning of education. Research is to carefully analyze the problems or to do the detailed study of the specific issues or problems by making use of scientific method (Reddy, 2019). By this definition, we can say that research is not an innate knowledge that everyone knows by nature as a human being. Research must be learned on how to do it through education. One must know the theory or method of research and know how to apply those method into actual research. Solving problems and finding new solutions have to follow the process of research which may be started by the statements of the problems, hypothesis and methodology on how to investigate the problems before finding solution to the problem (Ariola, 2006).

As we have emphasized earlier that research is not innate knowledge but it is learned. This concept brings us to the role of education. Education is to teach people how to do research. This is the first thing to be introduced to students when they enter university or college. The purpose is to familiarize students on how to conduct an academic research, to connect students to research, to encourage students and educators to reflect upon the research process to enable them to position themselves into the bigger picture of learning, and encourage pedagogic culture (Groessler, 2017). In short, teaching research is actually to orient the mind of students and even teachers themselves that education is actually research. Research is the culture of education, in the sense that it is the business of everyone, not only teachers. Educational process must be the output of research and student-teacher interaction in the classroom must lead them into further investigation or research.

The argument above leads us to argue that teaching and research are two inseparable topics for a teacher, though they seem to be separated but in practice, they are one. By saying this means that the job of a teacher is teaching and at the same time doing research. As a teacher, her/his job is to teach but in order to teach well, he/she must conduct
research. In other words, teaching must be based on research. To advance in teaching and learning, a teacher requires considerable time to conduct research, then publication and presentation. Research does not end with research activity itself but it has to be published in the appropriate journal and finally to be presented. Both teaching and research can help a teacher to develop insights into his/her field, refine his/her knowledge and communication skills and draw on his/her ability to select and organize content in a meaningful way.

II. RELATED STUDIES ON ATTITUDE TOWARD RESEARCH

It has been said that one of the well-established hallmarks of a profession is its ability to generate research to expand its unique professional knowledge base. It is expected that all people who are in the business, education or health practitioners must be familiar with research and must conduct research. Service innovations can only happen if there are researches on the different areas of the services. But sad to say that not all people in the profession are engaged in research. The reason is simple, that not all people have a good or positive attitude toward research and do not have enough knowledge and skills toward research. Studies on measuring attitude toward research have been done by many researchers but those studies were only to measure the attitude toward research and only few researchers measure the effect of such attitude toward conducting actual research or the intention or the plan to conduct research in the future.

Many studies have been done to measure the attitude of students across disciplines toward research. For example, Shaukat, Siddiquah, Abiodullah and Akbar (2014) tried to measure the attitude of post graduate students toward research in Pakistan. The study dwelt on the hypothesis that students hold positive ideas toward different aspects of research. In line with such hypothesis, five constructs were investigated particularly on the usefulness of research for a career, research anxiety, positive attitude toward research, research’s relevance to life, and research difficulty. The results were compared between male and female. The study found that male had significantly positive attitudes towards research than the females along those five constructs. The finding was also confirmed by the finding of Oguan, Bernal, and Pinca (2014) that male students are more positive compared to their female counterparts. However, similar study of Bibi, Iqbal and Majid (2012) argued otherwise that male and female students have almost the same level of attitude toward research. Within the same interest, Belgrave, and Jules (2015) conducted a study on the attitude of students toward research. The study also found that students had a positive attitude toward research and it validated the hypothesis that students’ perceptions of the functionality of research and its meaningful application to real-life situations results in a positive attitude towards research. Positive attitude can be a result of knowledge on research as pointed out by Hofmeister (2007), Kakupa and Zue (2019) and Seher (2018). By comparing Master students’ and Doctoral students’ attitude toward research, their study found that Doctoral students have more positive attitude toward research compared to Master students. Students who had more exposure to scientific research had positive attitude toward research (Seher, 2018). Therefore, the study pointed out that self-efficacy is positively related to positive attitude toward research as pointed out by Oguan, Bernal, and Pinca (2014) that those with a high academic qualification and academic grade display a high positive attitude towards research (Rezaei, 2013). Therefore Memarpour, Fard and Gashemi (2015), Monir, Bolderston (2009) suggested to provide greater availability of information in order to solve the problems related to self-efficacy and engage in research. Beside positive attitude toward research, there have been a lot of studies which point out the negative attitude toward research. Monir, and Bolderston (2009) had pointed in their study about the attitude and the perception of students toward research. The study revealed that students have negative attitude toward research and because of such negative attitude, they have general disinterest in conducting research. They argued that general disinterest in research is the most common reason why students are not engaging in research. This was also confirmed by Oguan, Bernal and Pinca (2014) that most students have negative attitude toward research and they found research to be difficult. Though students recognize its usefulness and importance but they find it difficult and anxious toward research (Al Furaikh, et.al, 2017) and this attitude was caused by their lack of knowledge about research as pointed out by Kleinbaum and Swenson (1984), Kumari, et.al (2018). Feeling that research is difficult is discouraging students to conduct research as it is found that this is one of the reasons why graduate students do not finish their studies (Kleinbaum and Swenson, 1984). In terms of attitude and the intention to conduct research in the future, the previous studies have a mixed answer.
Though students have positive attitude toward research and see research as useful in their profession and for their promotion, however, studies showed that positive attitude will not always translate into action, will not translate into plan to conduct research in the future. They cited many reasons along this line. For example, Siamian (2015) in his study found that students had a very positive attitude toward research, and see it as very useful in their life but such positive attitude did not correlate to their plan to conduct research in the future. They somehow pointed out the reasons why they are discouraged to go into research such as the availability of resources and research facilities. Beside the availability of research facilities, students also pointed out lack of knowledge in conducting scientific research and lack of supportive environment (Soe, et.al, 2018), lack of guidance, funding and professional trainings (AlGhamd, et.al, 2014), Al Furaikh (2017), lack of experience in scientific activities (Seher 2018), lack of time because of educational tasks (Abulata, et.al, 2019), lack of documentation and maintenance of records, (Basudan, et.al, 2019). However, those findings may not be conclusive because some studies also found that positive attitude and self-efficacy correlates to the conduct of research. For example, Rezaei and Miandashti (2013) conduct a study on the attitude and self-efficacy of Master of Science student and Doctoral students toward research, the study found that students who have high self-efficacy and positive attitude toward research correlated to the number of published research paper. Likewise Basudan, et.al (2019) conducted a study on the accountants’ and specialists’ attitude toward research and the study found that majority of them have positive attitude toward research and are willing to conduct research and are willing to apply research outcome in their practice and they also believed that by conducting research helps their profession and increases their knowledge. It was also found that students who have training in research have positive attitude toward research and possibility to conduct research (Kumari, et.al, 2018). Therefore, it is confirmed that self-efficacy matter to the realization of attitude toward research and the conduct of actual research.

Conceptual Framework

| Independent Variables | Dependent Variable |
|-----------------------|--------------------|
| Cognitive and Affective Attitudes toward Research: | Behavioral Intention |
| Cognitive Attitudes | Intention to conduct research |
| - Positive cognition | |
| - Negative cognition | |
| Affective Attitudes | |
| - Affection (Positive) | |
| - Disaffection (Negative) | |

Fig. 1: The conceptual framework reflects the independent and dependent variables. It depicts one variable affects the other variable. Attitudes affect the behavioral intention.
Statement of the problems
The study wants to determine the relationship of attitudes of teachers toward research and how it affects the behavioral intention of teachers to conduct research. Specifically, it seeks to answer the following questions:
1. What is the cognitive attitude of teachers toward research in terms of
   a. Positive cognition
   b. Negative cognition
2. What is the affective attitude of teachers toward research in terms of
   a. Affection
   b. Disaffection
3. What is the behavioral intention of teachers to conduct research?
4. Is there a relationship between cognitive and affective attitudes toward research and behavioral intention of teachers to conduct research?

Assumption
The study assumes that attitudes toward research affect the behavioral intention to conduct research and it can be measured. Attitude has predictive validity and it helps us explain human social behavior.

Hypothesis
Ajzen (1985, 1987), Ajzen & Madden, (1986) have argued that attitudes affect the human behavior and base on this theory, the current study argues that attitudes of teachers toward research affect their behavioral intention to conduct research in the future.

III. METHODOLOGY
The study was carried out through appropriate research methodology such as research design, data gathering instruments, population, locale of the study, data gathering procedures and statistical treatment of data.

Research Design
Since the study is a quantitative research and therefore it used descriptive correlational research design and aided by inquiry to determine the level of attitudes of teachers toward research and behavioral intentions to conduct research. The nature of descriptive research is to describe what is found in the data collected through questionnaires and statistical treatment. It is also used to describe profiles, frequency distribution, describe characteristics of people, situation, phenomena or relationship variables. In short, it describes “what is” about the data (Ariola, 2006, cited by Abun, 2019).

In line with the current study, descriptive correlational method was deployed. The study determines the level of attitude toward research and its correlation with the plan to conduct research. This was to determine what the dominant attitude of teachers toward research were and what particular attitudes affects the behavioral intention to conduct research.

Locale of the Study
The locale of the study was Divine Word Colleges in Ilocos Region which is composed of Divine Word College of Vigan. Divine Word College of Vigan is a school belonged to the Province of Ilocos Sur and located within the heritage city of Vigan. Divine Word College of Laoag is located in Laoag City, Ilocos Norte. Divine Word Colleges in Region I are run by the Congregation of the Divine Word Missionaries or known as Society of the Divine Word or in Latin, Societas Verbi Divini (SVD).

Population
The population of the study was composed of all teachers of Divine Word Colleges in Ilocos region. Since the total numbers of teachers are limited, and therefore total enumeration is the sampling design of the study.

Data Gathering instruments
The study utilized validated questionnaires. The questionnaires were adapted from ATR scale or Attitude Toward Research Scale of Papanastasiou (2014).

Data Gathering Procedures
In the process of data gathering, the researcher sent letters to the President of the Colleges, requesting them to allow the researcher to flow his questionnaires in the college. The researcher personally met the Presidents and employees and requested them to answer the questionnaires.

The retrieval of questionnaires was arranged between the President’s representative and the researcher with the help of employees and faculty of the college.

Statistical Treatment of Data
As a descriptive research, statistical tools were used. The weighted mean was used to determine the level of attitude toward research and behavioral intention to conduct research and the Pearson r was used to measure the correlation between attitudes toward research and the behavioral intention to conduct research.

The following ranges of values with their descriptive interpretation will be used:

| Statistical Range | Descriptive Interpretation |
|-------------------|-----------------------------|
| Overall Descriptive Rating |                           |
IV. FINDINGS

The findings of the study are presented according to the arrangement of the statement of the problems. The study wanted to determine the relationship between cognitive and affective attitude of teachers toward research and their behavioral intention to conduct research, specifically to answer the following questions:

Problem 1: 1. What is the cognitive attitude of teachers toward research in terms of
a. Positive cognition
b. Negative cognition

| Indicators                          | Mean  | DR  |
|-------------------------------------|-------|-----|
| **Positive Cognition**             |       |     |
| 1. Research is useful for my career| 4.30  | SA  |
| 2. Research is important for enriching my knowledge| 4.35  | SA  |
| 3. Research should be indispensable in my professional training| 4.02  | A   |
| 4. Research should be taught to all students| 4.11  | A   |
| 5. Research is useful for every professional| 4.23  | A   |
| 6. Research is very valuable for human life| 4.12  | A   |
| Composite Mean                     | 4.19  | A   |

| Negative Cognition                 |       |     |
|------------------------------------|-------|-----|
| 1. Research is difficult because it follows certain method of investigation| 3.59  | A   |
| 2. The concept of research is hard to understand| 3.17  | SWA |
| 3. Research is irrelevant to my career| 2.35  | D   |
| 4. Research complicates my work    | 2.71  | SD  |
| 5. Research should not be part of teaching requirement| 2.61  | SWA |
| Composite Mean                     | 2.89  | SWA |

**Legend**

4.21-5.00 Strongly agree/strongly disagree Very High/very low
3.41-4.20 Agree/Disagree High/low
2.61-3.40 Somewhat agree/somewhat disagree Moderate/moderate
1.81-2.60 Disagree/agree Low/High
1.00-1.80 Strongly disagree/strongly agree Very Low/Very High

On the positive cognition, as it is indicated on the composite mean, as a whole, it shows that teachers agree that they have cognitive knowledge toward research (4.19). Specifically they agree that research is indispensable in their professional training (4.02), useful for every professional (4.23), valuable for human life (4.12), should be taught to all students (4.11) and they strongly agree that...
research is useful for their career (4.30), and important for enriching their knowledge (4.35).
In terms of negative cognition, as a whole, teachers somewhat agree (2.89) that research is difficult because it follows certain method of investigation (3.59), the concept of research is hard to understand (2.61) and therefore they somewhat agree that research should not be part of teaching requirements. They still disagree that research is irrelevant to their career (2.35) and strongly disagree that it complicates their work (2.71).

Problem2. What is the affective attitude of teachers toward research in terms of
a. Affection
b. Disaffection

Table 2. Teacher’s Attitude toward Research as to Affective Component

| Indicators                               | Mean | DR |
|------------------------------------------|------|----|
| a. Affection (Positive)                  |      |    |
| 1 Research is interesting                | 3.63 | A  |
| 2 Research is enjoyable                  | 3.40 | SWA|
| 3 Research excites me                    | 3.38 | SWA|
| 4 Research makes me great                | 3.35 | SWA|
| 5 Research gives me a great feeling      | 3.31 | SWA|
| Composite Mean                           | 3.41 |    |
| b. Disaffection (Negative)               |      |    |
| 1 Research makes me nervous              | 3.29 | SWA|
| 2 Just thinking of research is stressful | 3.31 | SWA|
| 3 Thinking of research makes me anxious  | 3.12 | SWA|
| 4 Research scares me                     | 2.93 | SWA|
| 5 Research makes me upset                | 2.86 | SWA|
| 6 Research gives me headache             | 2.92 | SWA|
| Composite Mean                           | 3.07 | SWA|

Legend
4.21-5.00  Strongly agree/strongly disagree  Very High/very low
3.41-4.20  Agree/Disagree  High/low
2.61-3.40  Somewhat agree/somewhat disagree  Moderate/moderate
1.81-2.60  Disagree/agree  Low/High
1.00-1.80  Strongly disagree/strongly agree  Very Low/Very High

In terms of affection toward research, as a whole, it reveals that affective attitude of teachers toward research is still high or “agree” as indicated through its composite mean of 3.41 which means agree or it is high. If they are taken singly, the teachers agree that research is interesting but they somewhat agree or to a moderate extent that research is enjoyable (3.40), research excites them (3.38), makes them great (3.35) and gives them a great feeling (3.31).

It follows their disaffection toward research as indicated by its composite mean of 3.07 which is interpreted as somewhat agree or moderate extent. They did not strongly agree or agree but somewhat agree that research makes them nervous (3.29), makes them stressful (3.31), makes them anxious (3.12), scares them (2.93), makes them upset (2.86), and gives them headache (2.92).
3. What is the behavioral intention of teachers to conduct research?

Table 3. Teacher's Behavioral Intention to conduct Research

| Indicators | Mean | DR. |
|------------|------|-----|
| Positive Intention | | |
| 1 I will employ research approach in my profession | 3.56 | A |
| 2 I have the skills to write and I will conduct research | 3.55 | A |
| 3 I have applied theories of research in writing my thesis/dissertation and I will do it again | 3.42 | A |
| 4 I am inclined to study the details of my research and will apply it in the future | 3.49 | A |
| 5 I will really conduct research | 3.47 | A |
| Composite Mean | 3.50 | A |

Legend

4.21-5.00 Strongly agree/strongly disagree Very High/very low
3.41-4.20 Agree/Disagree High/low
2.61-3.40 Somewhat agree/somewhat disagree Moderate/moderate
1.81-2.60 Disagree/agree Low/High
1.00-1.80 Strongly disagree/strongly agree Very Low/Very High

Based on the composite mean, in terms of positive intention shows that as a whole teacher agree to conduct research as it is indicated by its overall mean of 3.50 which means that they agree to conduct research in the future. Specifically, they agree that they will employee research approach in their profession (3.56), will conduct research (3.55), apply theories of research to conduct research (3.42), will apply theory or research in the future (3.49), and will conduct research (3.47).

4. Is there a relationship between cognitive and affective attitudes toward research and behavioral intention of teachers to conduct research?

Table 4. The Relationship between Cognitive, Affective attitudes toward Research and Behavioral Intention of Teachers to Conduct Research

| Correlations | Cognitive Attitudes | Affective Attitudes | Behavioral Intention |
|--------------|---------------------|---------------------|----------------------|
| Cognitive Attitudes | Pearson Correlation | 1 | .525** | .606** |
| Sig. (2-tailed) | N | 300 | 300 | 300 |
| Affective Attitudes | Pearson Correlation | .525** | 1 | .571** |
| Sig. (2-tailed) | N | 300 | 300 | 300 |
| Behavioral Intention | Pearson Correlation | .606** | .571** | 1 |
| Sig. (2-tailed) | N | 300 | 300 | 300 |

**. Correlation is significant at the 0.01 level (2-tailed).

Based on the Pearson r correlation, it reveals that there is a significant relationship at the 0.01 (2-tailed) between cognitive attitude toward research and the intention to conduct research and there is also a significant relationship at the 0.01 (2-tailed) between affective attitude toward research and behavioral intention to conduct research in the
future. Both, cognitive and affective attitudes toward research (positive and negative components) correlate to the behavioral intention to conduct research. Therefore, the hypothesis of the study, that cognitive and affective attitude of teachers toward research affect their behavioral intention to conduct research in the future is accepted.

V. CONCLUSION

Based on the findings, the study concludes that the positive cognitive attitude of teachers toward research is considered high (4.19) compared to its negative attitude toward research (2.89) which is considered moderate. The same case with its affective attitude toward research. The finding shows that positive affection of teachers toward research is high as indicated by its composite mean of 3.41 and their negative affection or disaffection toward research is considered moderate.

Finally, their intention to conduct research is considered high as indicated by its composite mean of 3.50 which means that they agree to conduct research in the future. In terms of its correlation, it shows that there is a significant correlation between cognitive and affective attitude of teachers toward research and therefore, the hypothesis of the study is accepted.

RECOMMENDATION

Based on the conclusion of the study, the study recommends that there must be continuous training to improve their cognitive attitude and affective attitude toward research.

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