

## Exploring Teachers' Philosophical Views, Epistemological Beliefs, and Research Productivity as Influencing Factors on Research Productivity and Engagements

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This explanatory sequential mixed methods study aimed to explore the philosophical views, epistemological beliefs, and frequency of utilization of research designs as influencing factors on the research engagements and productivity of teachers in a locally funded higher education institutions (HEIs) in Cavite, Philippines. Quantitative surveys were conducted on 102 teachers, followed by semi-structured interviews with 16 purposefully selected participants to gather follow-up qualitative data that provide further explanations to findings. Quantitative results revealed that the majority of higher education teachers were dominantly influenced by pragmatist orientation as they gave importance to the practical value of knowledge derived from research work rather than defining knowledge as reality. They strongly agreed that knowledge is constructed through experience, evidence, and actions. In terms of utilizing research designs, descriptive research was considered as the commonly used design in the academe due to convenience. Ethnography, documentary, and mixed methods designs were seldom used by higher education teachers as these were perceived as complex and time-consuming. Explaining the results further, qualitative results indicated that the teachers' research engagements and productivity were influenced by exposure to research designs, convenience, personal and institutional merits, identity as a researcher, and fragile personality. The study recommends that HEIs align teachers' philosophical and epistemological orientations with their research engagements.

Keywords: epistemological beliefs, frequency of utilization, higher education teachers, philosophical worldviews, research designs, research productivity

### INTRODUCTION

The productivity and engagement of teachers in research are very critical for higher education institutions (HEIs) in their pursuit of innovation and development (Kyaw, 2022; Li, 2023; Raina & Khatri, 2015). As research is one of the fundamental functions of HEIs (Cervantes, 2017), faculty

**Citation:** Hernandez, R. L., Alvaran, C. R. C., Millo, L. D., Bastida Jr, E. L., & Saysi, J. G. (2026). Exploring teachers' philosophical views, epistemological beliefs, and research productivity as influencing factors on research productivity and engagements. *Anatolian Journal of Education*, 11(1), 21-38. <https://doi.org/10.29333/aje.2026.1112a>

members should actively engage in producing knowledge beneficial to the progress of the institution, the community, and the country in general (Al-Kurdi et al., 2018; Dagiliūtė & Liobikienė, 2015). Drawing on this significance, it is noteworthy to consider that the impetus to research productivity of faculty members is grounded in their philosophical views and epistemological beliefs (Alhija & Majdob, 2017; Iyengar et al., 2009).

Teachers' philosophical orientations toward research may be premised on several world views such as positivism, pragmatism, advocacy, and constructivism (Lauriala, 2013; Petersen & Gencel, 2013). Each single philosophical world view influences a researcher's belief of what reality is (Illing & Carter, 2018) and how he or she sees the world (Kivunja & Kuyini, 2017). It is the conceptual lens through which a teacher evaluates what to study, what research methods to use, and how to interpret the results (Kankam, 2019). In other words, a research project is highly dictated by teachers' philosophical orientations toward research (Cleland, 2017; Mazandarani, 2022). Therefore, teachers must possess a thorough comprehension of these philosophical perspectives or paradigms since they entail varying epistemological beliefs and assumptions (Kivunja & Kuyini, 2017). When investigating a phenomenon of interest, teachers may uncover the reality based on their epistemological beliefs putting emphasis on reason (Kelly, 2021), experience (Willig, 2012), intuition (Murphy & Alexander, 2016), and practical authority (Schiefer et al., 2022).

In the Philippine context, the research productivity of HEIs is still a serious concern (Baylan, 2023; Cocal et al., 2017; Lunag et al., 2024). Based on the 2020 Scopus statistics, the Philippines was ranked 6th in the ASEAN region (Rogayan & Corpuz, 2022). In the Global Innovation Index 2020, the country took the 86th place among 130 economies in terms of human capital and research. While the country is improving, it still does not keep pace with the improvement of its Southeast Asian neighbors. These results only show the need to accelerate the role of HEIs in making research-based innovations and developments. At the heart of this overarching goal are the HEI teachers and their sustained research productivity.

Although there is an abundance of studies on research productivity of teachers (Mantikayan & Abdulgani, 2018; Ul Haq et al., 2020; Uwizeye et al., 2021), it is important to emphasize that only few had focused on the philosophical views and epistemological beliefs of teachers as its determinants. Hence, this study aims to: (1) determine the philosophical views and epistemological beliefs of teachers toward research as a collection of knowledge; (2) determine the frequency of utilization of the different types of research designs; and (3) analyze how philosophical and epistemological orientations affect teachers' research engagement and productivity.

### **Literature Review**

Essentially, the identity of the higher education teachers as researchers are shaped by their philosophical views and epistemological beliefs. Defining oneself as a researcher requires a perennial exploration and refinement of knowledge and truth derived from sensory experiences, experimentations, observations, and social reflections. Aside from that, emotions, socio-cultural perspectives, and experiences were also seen as influencing factors on the construction of teachers' identity (Çetinkaya, 2024). Supporting this, Çakmak & Çelik (2024) found that the interaction between academic, social, and individual factors significantly influences the teachers' research identity. The social context, where the researchers usually conduct their study, shapes how they perceive themselves as the receptors and creators of knowledge.

Ponterotto & Grieger (1999) defined researcher identity as the way individuals view themselves as researchers considering their specializations, the impacts created on their respective specialized areas, and their extensive knowledge in methodologies, playing pivotal roles in their research productivity and engagement. This identity is not a fixed asset (Swaminathan & Mulvihill, 2018); it is dynamic, pervasive, and flexible as the researchers keep on establishing a relational connection with academic

communities (Castelló et al., 2015). The teachers' researcher identity not only influences their approach to research but also improves visibility and productivity in their chosen research expertise.

Several studies argue that teachers' research productivity is influenced by their philosophical views and epistemological beliefs (Illing & Carter, 2018; Schraw, 2013). Taking it into account, HEIs need to make sure that the involvement of teachers in research is in line with their selected research paradigms (Maiya & Aithal, 2023). This indicates the importance of HEIs encouraging a culture of research, by aligning research activities of teachers with their personal world views and beliefs. In the research conducted by Alhassan and Ali (2020), the insufficient focus of HEIs on the connection between research and teaching was well articulated, highlighting the problem of teacher involvement in research.

Additionally, the deep understanding and practical skills in research designs is gauged by the philosophical views and epistemological beliefs of the higher education teachers. Kivunja & Kuyini (2017) argued that the researchers' orientation on the nature of knowledge helps them establish trust and confidence in their collected data and determines how will they go about investigating the knowledge enshrined in the given social context. They also explained that philosophical assumptions are crucial in the meaning-making of the collected data, particularly in highlighting its practical essence, social significance, and approaches in answering research questions.

In Turkey, Alkiş Küçükaydın & Gökbulut (2020) examined how the compulsory undergraduate course "research methods," impacts teacher candidates' understanding of scientific epistemological beliefs. They found that teachers' scientific epistemological beliefs were not significant related to the research methods course. This contradicts the findings of Karakuş and Aydoğdu (2014), in which they underscored that the research methods course was effective in transforming and enhancing teachers' scientific epistemological beliefs. With these opposing results, the present study delved into producing a profound understanding of connections between the philosophical views, epistemological beliefs, and research engagements and productivity of teachers, influencing their identity as researchers.

## **METHOD**

### **Research Design**

The researchers employed an explanatory sequential mixed methods research design to investigate the philosophical views, epistemological beliefs, and research productivity of higher education teachers. In this two-phase study, the quantitative data were carefully examined to surface significant or unexpected findings. These findings were further explained by collecting qualitative data from purposefully selected participants. Findings from both phases were combined to gain a comprehensive understanding of the subject under review.

Both quantitative and qualitative analysis offer insight into how higher education teachers' philosophical views and epistemological beliefs impact their research involvement and productivity. Figure 1 below illustrates the process of explanatory sequential mixed methods research.

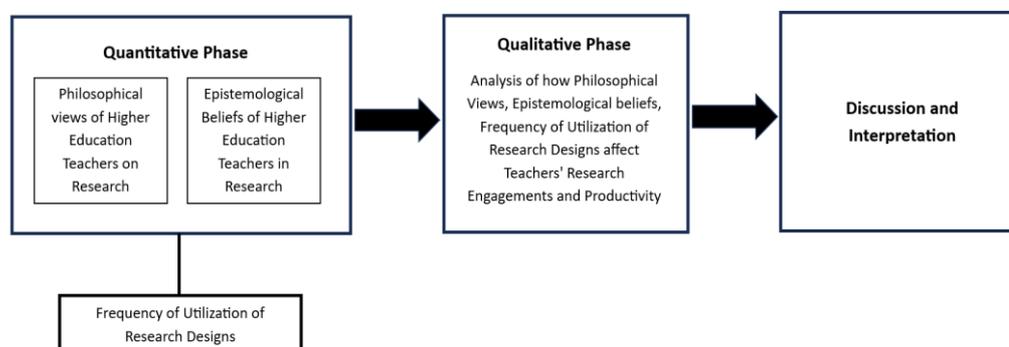


Figure 1  
Explanatory sequential mixed methods process

### Setting and Respondents

The study was conducted at City College of Dasmariñas, a locally funded institution of higher learning in Dasmariñas, Cavite. This institution houses more than 5,000 students taking up various degree programs, such as Bachelor of Science in Nursing, Bachelor of Science in Engineering, Bachelor of Science in Midwifery, Bachelor of Science in Engineering, and Bachelor of Science in Information Systems.

Table 1 displays the distribution of respondents based on their institution, highest level of education completed, unpublished and published research count, and years spent in research activities. The study had 102 respondents, mostly from the Institute of Mathematical Applications and Computing Sciences and Institute of Liberal Arts, who were higher education teachers. Some of them had bachelor's degrees, and others had master's degrees. Regarding research productivity, most individuals had been participating in research for a period of 1 to 3 years, confirming their limited output of both unpublished and published papers.

Table 1  
Composition of the respondents

Institute	Frequency	Percent
Institute of Mathematical Applications and Computing Sciences	30	29.41
Institute of Engineering	10	9.80
Institute of Midwifery	10	9.80
Institute of Nursing	7	6.86
Institute of Sciences	15	14.71
Institute of Liberal Arts	30	29.41
Highest Educational Attainment		
Bachelor's degree	51	50.00
Master's degree	43	42.20
Doctorate degree	8	7.80
Number of Unpublished and Published Research		
1-3 papers	82	80.40
4-7 papers	14	13.70
8-11 papers	3	2.90
12 papers	3	2.90
Number of Years in Research Engagement		
1-3 years	79	77.50
4- 7 years	16	15.70
8 years and above	7	6.90

### **Data Collection**

Quantitative data was collected using a survey instrument. This survey was used to determine the dominant philosophical and epistemological orientations of the 102 higher education teachers toward research and the frequency of utilization of the different designs in their current and previous research engagements. Some indicators were taken from the works of Petersen and Gencel (2013), Shah and Al-Bargi (2013), Creswell, (2013), and Saliya (2023).

To ensure the internal consistency of the indicators, the instruments were pilot tested to a group of teachers from another local college. Each instrument obtained a Cronbach alpha coefficient higher than 0.872, indicating that all statements were rated from good to excellent. In addition, these instruments also underwent face validation with the subject experts and research specialists to examine the alignment of the constructs to the research objectives. All recommendations were incorporated into the final version of the data collection tools. Five-point Likert scale measuring the levels of dominance, agreement, and frequency were applied to the study.

On the other hand, in the qualitative phase, 16 with various philosophical and epistemological beliefs were deliberately chosen from the respondent group. In order to prevent bias in participant selection, the researchers ensured equal representation by choosing four participants from each philosophical perspective. An interview guide was prepared to gather the qualitative data. This interview guide consists of questions that essentially explore and elaborate the significant findings found in the quantitative phase. In this process, 16 participants were questioned regarding their opinions and attitudes towards productivity and involvement in higher education.

### **Data Analysis**

The survey responses of the 102 respondents were analyzed using SPSS Statistics 30. Descriptive statistics and frequency counts were employed to analyze the collected data. On the other hand, the interview transcripts were analyzed using content analysis and were then presented in themes (Bengtsson, 2016). The results from both phases were interpreted and discussed single-handedly.

## **FINDINGS**

### **Quantitative Phase: Philosophical Views of the Higher Education Teachers On Research**

Table 2 presents the views, beliefs, and considerations of higher education teachers when philosophizing research as a field of study. All indicative statements were rated as moderately to very dominant, implying their varied beliefs, assumptions, and views about the nature, scope, and purposes of research. Results revealed that higher education teachers agreed that research is a collaborative knowledge-generating effort that requires participation from different individuals. The knowledge derived from this effort is believed to transform the lives by recommending practical solutions to address social issues. In the context of HEIs, it is essential to engage in research collaborations in order to build a social network of different perspectives that can help enhance the knowledge economy (Huang & Brown, 2019).

In executing a research work, teachers agreed that researchers showed impartiality when conducting the study and in communicating the results. This impartiality can also be shown through ensuring the validity and reliability of generated conclusions. Backgrounding the explanations and reasons with empirical evidence derived from scientific experimentation and sensory experiences is also important to uphold an unbiased justification of knowledge. It is relative to what was emphasized in the study by Langfeldt et al. (2020), stating that research must contain sound properties of knowledge to establish its reliability and scientific value.

In order to ensure a more comprehensive understanding of the study, the participants agreed that it is important to consider cultural, political, and social factors when analyzing or interpreting the findings. Moreover, they agreed that employing different approaches to investigate the phenomenon provides a thorough comprehension of its features and scope. However, it was emphasized that the selection of methodology was decided to match the researcher's independence in making decisions.

Furthermore, teachers in higher education emphasized the importance of prioritizing the practical application of research over its ability to shape or reshape our understanding of reality. This actual essence is essentially reached when the study overturns oppression, marginalization, and inequalities, decreasing the incidence of social problems and vulnerabilities. To reinforce this point, Tawodzera et al. (2022) investigated the influence of social science research methods in promoting social change. These responsibilities involve identifying the causes of societal problems, changing conduct, and enhancing the community. In the same vein, Mertens (2021) highlighted how transformative research exposes vulnerabilities and injustices within cultural and minority communities.

Table 2  
Views, beliefs, and considerations of higher education teachers on research

Indicators	Weighted Mean	Standard Deviation
1. Using careful observation, measurements, and hypothesis-testing to generate valid conclusion from the study conducted.	4.26	0.73
2. Conducting studies that primarily seek to change the lives of the participants.	4.27	0.79
3. Incorporating operational decisions based on 'what will work best' in finding answers for the questions under investigation	4.19	0.71
4. Understanding the experiences and subjective meanings of individuals within the social context.	4.09	0.94
5. Treating individual experiences as the basis for understanding the nature of the world and constructing knowledge as opposed to absolute truth.	4.05	0.98
6. Anchoring studies on the issues that concern suppression, oppression, alienation, and equality.	3.89	0.99
7. Utilizing the individual's freedom of choice when deciding on the research approaches to be used rather than the traditional ones for investigation.	4.09	0.92
8. Relying on reasons, experimentation, and observations as empirical evidence in determining the causes or outcomes of the behavior.	4.17	0.85
9. Defining subjective truth of the participants through directly interacting with them.	4.03	0.96
10. Examining the individual's culture and other socio-cultural factors when making sense of their perceptions, motivations, reactions, ideas, and meanings.	4.17	0.89
11. Asserting that the available theories and different worldviews of the researchers influence the constructions of all research.	4.02	0.96
12. Reflecting politics and political agenda on the topics being studied.	3.44	1.10
13. Emphasizing the practical value and utilization of any research outcomes to address issues rather than its construction of truth and reality.	3.89	1.09
14. Believing true knowledge is derived from scientific methods and sensory experiences and is independent of human consciousness.	4.17	0.82
15. Putting high importance on remaining neutral and impartial when conducting observations and experimentations.	4.30	0.79
16. Examining societal issues and constraints as the starting point of research engagements.	4.20	0.87
17. Making use of different approaches or working methods to have a broad understanding of the phenomenon being investigated.	4.19	0.88
18. Collaborating closely with the participants when providing solutions to the problems being addressed.	4.32	0.73
19. Making sense of social reality through rejecting that there is one special method that determine the "truth" in the phenomenon being investigated.	3.99	1.00
20. Enhancing the validity and reliability of the generated results through triangulation.	4.24	0.83

The synthesis of higher education teachers' perspectives, beliefs, and thoughts on the nature, purpose, and extent of research was done by analyzing the score sheets to identify the main philosophical views held by these teachers regarding research, as depicted in Table 3. Although teachers may consider multiple philosophical views, the most dominant one significantly impacts their research involvement and productivity. Kivunja and Kuyini (2017) back up the conclusion of the study that the pragmatic paradigm is a widely utilized philosophical perspective in educational research.

Findings revealed that most of them, specifically 39 teachers, were swayed by a pragmatic approach, prioritizing the practical benefits of research over its definition of truth. These teachers also challenged the concept of a universal approach in research by choosing the most suitable method to understand the problem. According to Creswell (2013), the choice of research methods depends on the nature of the problem, researchers' backgrounds, and the audience for the study.

It is important to mention that some higher education teachers leverage research to support advocacy efforts and social movements aimed at changing lives. Thirty-three advocacy or participatory researchers emphasized the importance of immersing oneself in the community to address political and socio-cultural issues like oppression, inequalities, marginalization, and suppression. They also advocated for the strength of working together, creating knowledge collaboratively, and involving people in order to tackle these enduring problems and weaknesses. These educators typically focused on subjects like reducing vulnerability, community intervention, governance, and equality studies.

On the contrary, 24 teachers identified as positivists, holding the view that implementing scientific experimentation and testing hypotheses enhances the credibility and validity of research. They mainly depended on relying on empirical evidence and sensory experiences to interpret the topics being investigated. These researchers who followed positivist principles also prioritize ensuring the validity and reliability of the data they gather.

Lastly, there were 17 constructivist researchers in the pool of respondents. Like the previous views, experiences and interactions with the environment serve as the basis for constructing knowledge. Teachers in higher education, who support constructivism, argue that the various approaches and theories can help comprehend subjective realities in a social context.

Table 3

Summary of the higher education teachers' dominant philosophical views towards research

Philosophical World Views	Frequency	Percent
Pragmatist	39	38.24
Positivist	24	23.53
Advocacy	33	32.35
Constructivist	17	16.67
Total	102	100.00

### Quantitative Phase: Epistemological Beliefs of the Higher Education Teachers toward Research

The epistemological beliefs dimension introduced by Conley et al. (2004) was used to determine how these higher education teachers perceive and process knowledge in research undertaking. The beliefs and subjective notion about knowledge shape the teacher's identity and competence as a researcher.

Results revealed that majority of the respondents strongly agreed that knowledge is constructed through experience and evidence as shown Table 4. In terms of source of knowledge, respondents believed that research serves as a repository of individuals' accumulated learning derived from a constant interaction with the world. The application of scientific reasoning to uncover the construction of the accumulated knowledge generates empirical evidence to be used for understanding the nature of life and pursuing transformative actions. Wood (2023) emphasized that knowledge has the ability to

bring about transformative changes by dismantling oppressive systems, advocating for human rights, embracing cultural diversity, and eradicating inequalities.

The utilization of the accumulated knowledge in addressing social issues validates and strengthens the advocacy or participatory researchers' claims that research is an agent of transformation. The baseline information derived from any research work serves as a building block for the development of policy, intervention, program, or any forms of actions that geared towards positive social transformation. The respondents agreed that the firm cognitive standing of knowledge is measured how many lives have been transformed and improved using research outputs.

The results also indicate that higher education teachers believe that research is an ongoing and dynamic effort that records the continuous process of inquiry and actions. This concept suggests that the knowledge derived from research findings is open to enhancements and clarifications and is only tentatively formulated until it is proven to be universally true and unchangeable. The evolving understanding of knowledge draws in more people to conduct additional investigations, perform more experiments, and provide more explanations on the phenomenon under study, potentially reshaping our current knowledge of human existence. Fundamentally, this belief asserts that the information obtained through research evolves over time.

In addition, teachers in higher education believed that the authenticity of knowledge found in research can be validated by using scientific methods and assessing its usefulness in solving long-lasting problems. The teachers who value science focus on using evidence-based practical reasoning to challenge incorrect cognitive assumptions that provide unclear explanations for the researched phenomenon. Certainly, scientific reasoning is crucial for interpreting and defining the knowledge gained.

Table 4  
Epistemological beliefs of the higher education teachers in research

Indicators	Weighted Mean	Standard Deviation
<b>Source of Knowing</b>		
1. Knowledge is constructed by the individual himself as he/she interacts with the environment/ context.	4.19	0.95
2. Knowledge is based on the empirical evidence derived from the application of scientific methods.	4.34	0.79
3. Knowledge is based on the reform agenda and decisions that aim to improve the situation.	4.24	0.80
4. Knowledge is derived from both experience and evidence.	4.57	0.74
<b>Certainty of Knowledge</b>		
5. Scientific reasoning and empirical evidence are the bases of objective certainty.	4.31	0.77
6. Transformative change that addresses societal constraints and issues strengthen the certainty of knowledge.	4.30	0.83
7. Subjective truth and meanings that manifest an individual's understanding of the world are certain forms of knowledge.	4.11	0.91
8. The practical value or utilization is the basis of certainty of knowledge.	4.14	0.86
<b>Development of Knowledge</b>		
9. Knowledge is a process of making, refining, and rejecting claims.	4.32	0.81
10. Knowledge is a process of interacting with the environment/ community.	4.34	0.83
11. Knowledge is a process of creating constant changes to improve the marginalized situation.	4.39	0.87
12. Knowledge is an ongoing process of inquiry and actions with intended consequences.	4.48	0.68
<b>Justification of Knowing</b>		
13. Knowledge can be tested or justified through scientific experimentation.	4.35	0.79
14. Knowledge is valid when it provides reform to the lives of individuals.	4.16	0.93
15. Knowledge is subjective and depends on the individual's understanding of his/her life.	4.08	0.90
16. Knowledge is action-oriented and seeks solutions to practical issues.	4.23	0.83

The responses of higher education teachers from the four dimensions of epistemological beliefs namely, source, certainty, development, and justification of knowing was consolidated to reveal the dominant epistemological beliefs that construct the nature and acquisition of knowledge in research as exhibited in Table 5.

Findings showed that over half of the teachers confirmed having diverse and complex beliefs and assumptions regarding the process of knowledge and the nature of knowledge in the study, with a total of 58 participants. They thought that research involves gathering knowledge through rigorous use of scientific methods, logical reasoning, subjective views on the world, promoting social change and combating marginalization, and maximizing practical value for solving diverse issues. Teachers' exposure to different research publications, training programs, educational experiences, societal concerns, and digital environments typically result in diverse perspectives on the goals and significance of research as a means of creating knowledge.

Additionally, some higher education teachers regarded knowledge as a scientific inquiry manifesting a strong inclination to creating new information through scientific research and experimentation. The evidence-based knowledge, which is theoretically derived from empirical information, is justified through the application of the teachers' scientific reasoning and critical thinking skills. Apart from scientific inquiry, higher education teachers also emphasized the practical value and usability of knowledge to maximize its essence. The knowledge derived from any research work serves as a driving force for innovation, invention, discovery, and development. Ekolu (2017) emphasized the importance of innovative knowledge in meeting societal needs. He also mentioned that disciplines like science, engineering, and technology make use of research and innovation's knowledge-based products for industrial growth and progress.

Only a small number of participants agreed that research is typically employed for social transformation opportunities and is dependent on how individuals interpret and negotiate ideas for themselves.

Table 5

**Dominant epistemological beliefs of the higher education teachers in research**

Epistemological Beliefs	Frequency	Percent
Agent of Transformation	9	8.80
Social Construct	6	5.90
Scientific Inquiry	17	16.70
Practical Application	12	11.80
Mixed Beliefs	58	56.90
Total	102	100.00

**Quantitative Phase: Frequency of Utilization of Different Research Designs**

The experience and competence of higher education teachers in different research designs are typical factors when planning research projects. Table 6 displays how often the teachers used various designs in their research projects. It shows that the participants often used descriptive design when studying a research issue. Descriptive research is the most frequently utilized design in academia due to its convenience, straightforward procedures, cost-effectiveness, and lack of resource-intensity. Usually, these educators use surveys to gather information and utilize statistical methods for analyzing the data. Koh and Owen (2000) stated that descriptive research is the predominant design utilized in a variety of fields, including education, nutrition, and behavioral sciences. Descriptive research is a study of status and is widely used in education, nutrition, epidemiology, and the behavioral sciences.

Higher education teachers rarely utilized ethnography, documentary, convergent parallel mixed methods study, and multiphase design due to their complexity and time-consuming nature, in contrast to descriptive research. Typically, these designs necessitate full involvement and presence in the

research areas to gather the necessary data. These also require different resources, capital, and skills to effectively manage the vast amount of information in the investigation. Furthermore, these research methodologies typically require extensive validation and cross-referencing of data, in-depth analysis and interpretation, and strict ethical adherence to the protocols consistently followed by the affiliated institutions.

On the other hand, some of these instructors occasionally utilized methods geared towards assessing the impact of interventions, conducting policy research and framework development, documenting experiences related to a specific phenomenon, providing recommendations for encountered issues and challenges, and engaging in experimentation. Moreover, other types of research design were sometimes used for exigency, further verification, and in-depth reinvestigation.

Table 6  
Frequency of utilization of different research designs

Research Designs	Weighted Mean	Std	Descriptive Interpretation
<b>Qualitative Research</b>			
1. Participatory Action Research	3.03	1.19	Sometimes
2. Case Study	3.17	1.126	Sometimes
3. Phenomenological Research	3.04	1.327	Sometimes
4. Ethnographic Research/ Ethnography	2.41	1.315	Seldom
5. Discourse Analysis	2.54	1.279	Sometimes
6. Grounded Theory Research	2.53	1.295	Sometimes
7. Narrative Research	2.96	1.342	Sometimes
8. Action Research	3.16	1.257	Sometimes
9. Historical/ Documentary Research	2.44	1.324	Seldom
<b>Quantitative Research</b>			
10. Descriptive Research	3.75	1.002	Frequent
11. Correlational Studies	3.45	1.216	Sometimes
12. Comparative Causal Studies	3.29	1.191	Sometimes
13. Experimental Research	3.41	1.277	Sometimes
14. Quasi-Experimental Research	3.16	1.28	Sometimes
15. Cross Sectional Studies	2.71	1.309	Sometimes
16. Longitudinal Studies	2.56	1.279	Sometimes
17. Meta-Analysis Studies	2.75	1.323	Sometimes
18. Data Mining and Analytics	2.69	1.393	Sometimes
<b>Mixed Methods Research</b>			
19. Convergent-Parallel Mixed Methods Study	2.46	1.287	Seldom
20. Explanatory Sequential Mixed Methods Study	2.6	1.322	Sometimes
21. Exploratory Sequential Mixed Methods Study	2.57	1.294	Sometimes
22. Empowerment Research Design	2.56	1.347	Sometimes
23. Embedded Research Design	2.51	1.384	Sometimes
24. Multi-Phase Research Design	2.48	1.333	Seldom
25. Transformative Research Design	2.53	1.34	Sometimes
26. Design-based Research	2.73	1.401	Sometimes

### Qualitative Phase: Analysis of how higher education teachers' philosophical views, epistemological beliefs, and frequency of utilization of research designs affect their research engagements and productivity

The quantitative phase revealed some significant results: (1) pragmatism as the dominant philosophical views in research; (2) mixed epistemological beliefs in nature of knowledge derived from research knowledge (3) low utilization frequency of other research designs; and (4) low research engagement and productivity as shown in the number of published and unpublished papers. These results were further explained in the qualitative phase.

In this phase, 16 higher education teachers were selected from the pool of respondents in the quantitative phase. This phase deepens the discussions of the quantitative results. In this phase, these teachers shared their perspectives and views on research engagement and productivity in higher education, assumptions about how philosophical and epistemological beliefs affect research productivity, and challenges encountered in utilizing different research designs. Results were analyzed using the thematic analysis. Below are the five (5) emerging themes derived from the qualitative data collection:

**Theme 1: Exposure is limited, knowledge is less.** This theme entails that the higher education teachers' limited exposure to various research outputs that reflect different kinds of philosophical views and epistemological beliefs lowers their understanding of the scope and nature of research as conglomeration of knowledge. It also allows them to repeatedly use the same lens when viewing the research problems. One of the contributing factors to this issue is the teachers' lack of knowledge in the conduct of research (Tindowen et al., 2019). Moreover, the ignorance to different research designs also limits the teachers' perspectives about the personal, institutional, and societal purposes of research, making them unproductive contributors to the development of knowledge.

Ten teachers collectively shared that poor attention to research training and conferences and reading a small number of journal articles have decreased their ability to win arguments, to contribute to data-driven discussions, and to hold healthy and productive conversations, making feel unproductive in the world of academe. They also argued that as much as they want to employ appropriate methods in research, poor knowledge of and limited exposure to varied constructs of research designs hinder them to do so. This result explains why teachers' understanding of research methodological concepts emerged as one of the challenges in pedagogical research writing in higher education (Freitas et al., 2024).

**Theme 2: Convenience as the topmost consideration.** This theme emphasizes that teachers usually employ research designs they are more competent in, familiar with, and believe to be convenient for the context of the study problem even without taking into account its practical and theoretical suitability to the functions and nature of research to be carried out. In the research conducted by Froehlich et al. (2021), competence in research method can be characterized by how a researcher appropriately uses it to study the complexity of life. Convenience is often cited as a primary factor preventing many teachers from conducting research with significant impact. It also hinders the significant effects of teachers' philosophical perspectives and epistemological beliefs on maintaining their motivation and participation in research projects. While they emphasize the importance of understanding a variety of research methods, these teachers often have to resort to using research methods that are most convenient for them due to limited financial support and time limitations.

Eight individuals stated that their philosophical and epistemological beliefs are completely disregarded in determining the research methodology, as they adhere to established and commonly used approaches. These teachers further mentioned that they had already become proficient in conducting descriptive research, having utilized it extensively in their previous projects. As

highlighted by higher education teachers, this mindset is the outcome of prioritizing convenience more than complexities of research. This, in effect, lessens their effort to read additional journal articles and explore various research methodologies. According to Al-Ghattami and Al-Husseini (2014), teachers' expertise in research plays a significant role in teacher research (TR).

**Theme 3: Productivity is for individual merits not for its practical essence.** This theme reveals that the constant engagement of teachers in research is heavily influenced by personal and institutional factors. While they dominantly considered themselves as pragmatists, most of teachers look for the practical essence of research that highlights personal gains and benefits such as promotion, recognition, incentives, and entitlements in their respective institutions. Only a few of them prioritize the practical essence of research in social transformation such as utilizing its main output as basis for policy making, intervention programs, social innovation, environmental protection, and some other worthy causes in which research is a prime requirement for its realizations. Ulla (2018) affirmed that personal and professional development as motivations of schoolteachers for doing research.

All participants unanimously agreed that research is an investment for professional growth as it is one of the main considerations for ranking, accreditation, recognition, and scholarships. These teachers also mentioned that the productive engagement in research is driven by the desire to increase points for salary adjustments, to satisfy institutional compliances, and to acquire other merits and benefits rather than using its practical value to improve human welfare and transform lives. Tarrayo et al. (2021) also found that HEI teachers' motivations for conducting research often stem from personal factors, such as financial benefits from internal and external funding, points for academic promotion, and validation of their academic expertise.

**Theme 4: Disengagement as a result of lack of researcher's identity.** This theme asserts that the low engagement and unstable motivation in pursuing research undertaking are caused by the identity-crisis of the higher education teachers as researchers. Transitioning to a different persona when engaging in research works, these teachers are now conditioned for a great purpose which apparently changes their roles from knowledge sharers to knowledge creators and from lessons facilitators to the principal investigators, viewing and treating the entire world as classrooms. Similarly, Taylor (2017) described the challenge of teachers in forming an identity as teacher-researchers.

Without deep understanding of their philosophical and epistemological orientations, these teachers might experience delving into different areas and disciplines, making them vulnerable researchers for failing to become a specialized researcher and staunch advocate of a certain discipline. While having a multidisciplinary mindset and mixed epistemological beliefs provide them several opportunities, this might reduce the teachers' security in having a competitive advantage in their field of specialization, resulting in disengagement and low productivity. Six (6) of the participants stated that they have hard time finding and defining themselves as researchers and becoming productive researchers due to the changing field of interests. They also shared that the weak philosophizing of the nature and purpose of research in life loses their identity as contributors of knowledge. A study conducted by Castelló et al. (2021) highlighted a distinct viewpoint on researcher identity, demonstrating the diversity of researcher background based on meta-theoretical assumptions.

**Theme 5: Fragile personality reduces knowledge-generating opportunities.** This asserts that higher education teachers' inability to sustain research engagement has resulted in limiting themselves for self-growth and from securing knowledge-acquisition opportunities. The teachers' fragile personality is perceived as the spillover effect of weak understanding of their philosophical views and epistemological beliefs as researchers. The fear of taking risks usually resorts them to not trying to publish research papers and lessening their participation in knowledge-sharing process. As long-term effects, the teachers' risk avoidance attitude reduces the rate of innovation and improvement.

Seven participants shared that teachers resist new research methods because they are unfamiliar and complex, leading to the need for increased effort and intellectual resources. They still see research as a way to showcase individual experiences within a social context. They also suggested that sticking to familiar methods of acquiring knowledge can sometimes be more beneficial than delving into complex, rigorous, and resource-intensive research. This approach was surfaced also in the study by Case and Light (2011), stating that researchers would rather employ those methods they are most familiar with than use the unfamiliar ones.

## **DISCUSSION**

As knowledge-generating partner of the government, education institutions of higher learning are expected to contribute to the innovation and transformation of society through the theoretical and practical outputs derived from any research endeavor. Higher education teachers are compelled to produce research outputs which would advance the current knowledge. However, in a local college, there was a relatively small number of teachers who have consistently maintained their dedication and diligence in creating research papers of high quality that are suitable for publication. Identifying factors like philosophical perspectives, beliefs about knowledge, and how often research designs are used have been found to impact low productivity and involvement of teachers in research.

Pragmatism was found to be the most dominant research philosophy of the higher education teachers. They believed that research is a conglomeration of experiences and evidence for making specific actions geared towards societal improvement. As pragmatists, these teachers supported that idea of using different designs when doing a research investigation which also reflected their mixed epistemological beliefs in the knowledge produced by any research work.

Furthermore, the findings highlighted that the teachers rarely utilized research designs like ethnography, mixed methods, and documentary due to their perception of being time-consuming, resource-intensive, complex, and inconvenient. Teachers' lack of awareness regarding philosophical views and epistemological beliefs are the reasons for the limited use of these research designs in their identity formation in research. The lack of teacher-researcher identity resulted in their confusion towards the way to view a research problem from a specific lens and the most appropriate research design(s) to varied study contexts.

Aside from that, these teachers resorted to avoid trying out new methods and stuck to the descriptive research as the commonly used design when investigating a phenomenon due to the weak foundational learning and fragile personality. The teachers' resistance to expand knowledge in research, which further resulted in disengagement and unproductivity, was caused by limited exposures to research conferences, unidentified field of expertise and research interests, and other socio-cultural factors.

## **CONCLUSION**

Philosophical views, epistemological beliefs, and frequency of utilization of research designs are crucial influencing factors on higher education teachers' research engagement and productivity. These orientations are inner driving forces that strengthen teachers' identity as researchers. Their research identity is confronted by certain factors which are rooted in their personal orientations as contributors of knowledge. Higher education teachers, lacking research identities, have demonstrated low engagement and productivity. This has serious implications on the effective delivery of research functions at the institutional level. Producing research outputs is integral in the development of initiatives of HEIs. The sustainability of this goal heavily relies on the formation of research identity of teachers which can be strengthened by considering factors such as teachers' philosophical views and epistemological beliefs.

## RECOMMENDATIONS

There is a need for HEIs to conduct a large-scale assessment of the teachers' philosophical views and epistemological beliefs and ensure the alignment of these orientations with their research engagements. The assessments may also include the research designs they are most familiar with and competent in and those which they are afraid of using due to lack of knowledge and technical expertise. Aside from that, in-housing evaluation research engagement and productivity of each institute must be conducted; however, unlike the typical evaluation which heavily relies on a number of published papers, this in-housing evaluation covers the scope and practical utilization of research outputs, including how many lives have been transformed, social issues have been solved, personal aspirations and advocacies of the researchers have been satisfied, and risks, challenges, and failures have been surpassed to sustain their research engagements.

Additionally, capacity building initiatives that would expose higher education teachers to various research philosophies, designs and methods, and analysis tools must be pushed through to further deepen their knowledge and competence in research undertaking. These initiatives should also allow teachers to determine worthy causes and advocacies where they could use the practical value of their research undertaking. Since the study was only limited to higher education teachers, future researchers may also conduct the same study at the basic education level. Other facilitating factors that affect the productivity of teachers in research such as persistence, competence, and motivation. Moreover, future researchers may opt develop a research engagement policy that includes philosophical views, epistemological beliefs, and engagements in research designs as core components, highlighting the significance of researcher-identity formation.

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