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ORIGINAL

A study on the level of philosophical intelligence among graduate student teachers of Kerala

Un estudio sobre el nivel de inteligencia filosófica entre profesores estudiantes de posgrado de Kerala

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ABSTRACT

Philosophical intelligence refers to the ability to critically consider fundamental issues related to existence, values, knowledge, and purpose. It involves exploring abstract ideas, ethical dilemmas, and synthesizing different perspectives to form a coherent worldview. This intelligence promotes wisdom, introspection, and the ability to approach life's challenges with logical discernment. The current study aimed to assess the philosophical intelligence of graduate student teachers in Kerala and examine if gender, location, or socioeconomic status influenced their philosophical intelligence. The study employed a quantitative approach, using a survey to assess the philosophical intelligence of graduate student teachers in Kerala. The sample was categorized by gender, location, and socioeconomic status to analyse potential differences. Data were analysed to determine the overall level of philosophical intelligence among participants and to identify any significant differences across the subgroups. The results indicated that the philosophical intelligence of graduate student teachers was average or mediocre. No significant differences in philosophical intelligence were found across the subgroups based on gender, location, or socioeconomic status. The findings suggest that the current teacher education curriculum should emphasize the practical application of diverse philosophical schools through creative assignments and practicums, rather than focusing solely on rote memorization of theoretical concepts. This approach could foster a deeper understanding and development of philosophical intelligence among student teachers.

Keywords: Philosophical Intelligence; Schools of Philosophy; Graduate Student Teachers.

RESUMEN

La inteligencia filosófica se refiere a la capacidad de considerar críticamente cuestiones fundamentales relacionadas con la existencia, los valores, el conocimiento y el propósito. Implica explorar ideas abstractas, dilemas éticos y sintetizar diferentes perspectivas para formar una visión del mundo coherente. Esta inteligencia promueve la sabiduría, la introspección y la capacidad de abordar los desafíos de la vida con discernimiento lógico. El presente estudio tuvo como objetivo evaluar la inteligencia filosófica de los profesores estudiantes de posgrado en Kerala y examinar si el género, la ubicación o el estatus socioeconómico influían en su inteligencia filosófica. El estudio empleó un enfoque cuantitativo, utilizando una encuesta para evaluar la inteligencia filosófica de los profesores estudiantes de posgrado en Kerala. La muestra se categorizó por género, ubicación y estatus socioeconómico para analizar posibles diferencias. Los datos se analizaron para determinar el nivel general de inteligencia filosófica entre los participantes y para identificar cualquier diferencia significativa entre los subgrupos. Los resultados indicaron que la inteligencia filosófica de los

profesores estudiantes de posgrado era promedio o mediocre. No se encontraron diferencias significativas en la inteligencia filosófica entre los subgrupos basados en género, ubicación o estatus socioeconómico. Los hallazgos sugieren que el currículo actual de formación docente debería enfatizar la aplicación práctica de diversas escuelas filosóficas a través de tareas creativas y prácticas, en lugar de centrarse únicamente en la memorización de conceptos teóricos. Este enfoque podría fomentar una comprensión más profunda y el desarrollo de la inteligencia filosófica entre los estudiantes de formación docente.

Palabras clave: Inteligencia Filosófica; Escuelas de Filosofía; Profesores Estudiantes de Posgrado.

INTRODUCTION

The capacity to reflect profoundly, and critically on the major issues, principles, and meaning of life is known as philosophical intelligence. Reflective thinking, ethical reasoning, and the ability to investigate abstract ideas like existence, truth, and morality are all part of it. Because it is associated with wisdom, moral discernment, and the search for meaning, this intelligence is crucial for both individual development and the advancement of society. The capacity to assess facts, recognize presumptions, and examine arguments. For instance, arguing over whether technology increases or decreases human freedom. The ability to evaluate moral quandaries, and reach judgments grounded in justice, fairness, and empathy. Example: Choosing how to divide up scarce resources during an emergency. Considering the ultimate concerns, meaning, and purpose of existence. For instance, examining queries such as "What makes life meaningful?" or "What is a good life?" Identifying the connections between various disciplines of expertise, such as science, art, faith, and values. For example, the moral implications of scientific advancements such as artificial intelligence. Encourages self-awareness, and clarity about one's values, and purpose, fostering a more fulfilled life. Enhances the ability to make ethical decisions, and contribute positively to society. This method provides a comprehensive way to dealing with complicated problems by taking into consideration both ethical, and practical aspects. Encourages tolerance, and respect for different customs and viewpoints.

Although Howard Gardner did not specifically name philosophical intelligence in his Multiple Intelligences (1983), certain elements align with existential intelligence, which he defined as the ability to reflect deeply on life, death, and existence. Matthew Lipman (1970) shown through his Philosophy for Children (P4C) program that including children in philosophical discourse enhances their intellectual thinking, reasoning skills, and ethical awareness. The Reflective Judgment Model, established by Kitchener and King (1994), illustrates that individuals with elevated levels of reflective thinking, an essential aspect of philosophical intelligence, are more adept at addressing ambiguous or poorly defined problems. According to Nussbaum (2010), philosophical thought is essential for fostering empathy, critical thinking, and global citizenship. Philosophical intelligence, according to Wilber's Integral Theory (2000), contributes to the integration of various viewpoints, and promotes holistic thinking that cuts across disciplinary boundaries. Philosophy instruction fosters the growth of pupil's critical thinking, moral reasoning, and intellectual curiosity. Example: To promote reflective, and collaborative learning, philosophy-based curriculum such as P4C are utilized globally. Leaders possessing philosophical intelligence are able to make judgments with inclusion, long-term vision, and ethical integrity. For instance, leadership with a philosophical foundation is essential for tackling global issues like social inequality, and climate change. Navigating moral conundrums in medicine, such as resource allocation or end-of-life care, is made easier by philosophical knowledge Philosophical reasoning facilitates communication, and understanding in interpersonal or societal conflicts by bridging viewpoint gaps.

Literature review

A key objective of higher education, according to Ishfaq, Vijaya, and Chitra (2023), is to assist instructors, and students in gaining a comprehensive perspective on life. They are better able to handle difficult situations, and lead satisfying lives when they possess spiritual intelligence (SI). Given this, the present study's objectives were to use a cross-sectional survey design to evaluate the SI levels of teachers, and students, and look into the ways in which designation influences SI, and its dimensions. Data was collected at random from 1266 students, and 330 teachers using a self-developed SI evaluation scale. The findings indicate that almost identical quantities of teachers, and pupils are distributed throughout low, medium, and high SI levels. Furthermore, there was no association between the participant's designation, and SI level, according to the results.

Chris James (2021) evaluated responses from a target group of teacher candidates based on their completion of pre- and post-instructional surveys, and reflective written responses. The findings demonstrated a relationship between the teacher-candidate's demonstrated intentionality, care, optimism, respect, and trust (I-CORT) to invite personal, and professional development and their emotional intelligence sub-skills, and adoption of an educational theory that supports equity and social justice. The findings indicate that educational leaders aiming

to enhance teacher preparation programs should ensure that the curriculum clearly emphasizes the necessity for applicants to possess high emotional intelligence, adhere to invitational education principles, and demonstrate dispositions that foster equity and social justice.

The impact of using the philosophical inquiry method of instruction on the reasoning skills, and classroom involvement of low achievers was investigated by Wan Maswati (2018). In this study, 22 low-achieving students aged 12 to 13 from a school in the Gombak district of Malaysia took part. As they discussed the questions they had created in response to the provided stimulus items, the students were watched and captured on camera. The findings demonstrated that allowing low achievers to voice their opinions through dialogic education helped them maintain concentration, and engage in class discussions. Low achievers have also been successfully encouraged to employ higher-order thinking or reasoning skills through this teaching approach.

In order to help conflict victims individually, and collectively across opposing parties form a political process that supports a deeper understanding of one another in order to foster reconciliation, and create a future in which the breakdown of societies into violence is less likely to occur, many projects around the world include some form of artistic endeavor (Pauline, 2015). This got me to thinking about how paintings, and drawings made by the victims or witnesses of war, genocide, and ethnic cleansing would help students taking an elective course on the philosophy of religion, which included the subjects of God, evil, and suffering.

According to the findings, teachers can assist students develop higher-order thinking, and reasoning skills by teaching them appropriate philosophical principles, and implementing different philosophical approaches in the classroom. The researcher opted to conduct a philosophical intelligence assessment for graduate pupil instructors to evaluate their philosophical intelligence level. This will illustrate the efficacy of contemporary teacher education programs in cultivating robust philosophical underpinnings in future educators, as there is a paucity of research about the influence of philosophical intelligence on the teaching-learning process. The subsequent principal questions of inquiry formulated for this study are as follows; What will be the philosophical intelligence level of Kerala's graduate student teachers? Does the gender sub-sample significantly influence the Philosophical Intelligence of graduate student educators? Does the sub-sample location significantly influence the Philosophical Intelligence of graduate student educators? Do the Philosophical Intelligence ratings of graduate student teachers vary considerably across different subsamples? What exactly is the socioeconomic status? The primary objectives derived from the investigation are as follows; To ascertain the degree of Philosophical Intelligence among graduate student educators in Kerala. To determine whether sub-sample gender significantly affects graduate student instructor’s levels of philosophical intelligence. To ascertain if the philosophical intelligence levels of graduate student instructors vary significantly by sub-sample location. To determine whether the sub-sample socioeconomic position of graduate student instructors significantly affects their level of philosophical intelligence

The main theories suggested for this investigation are, the degree of philosophical intelligence exhibited by graduate student teachers in Kerala would vary significantly. Depending on the sub-sample gender, there will be notable variations in the philosophical intelligence of graduate student teachers. The Philosophical Intelligence of graduate student teachers will differ significantly depending on the sub-sample location. Graduate student teacher’s Philosophical Intelligence will differ significantly depending on their sub-sample socioeconomic status.

METHOD

The normative survey approach was utilized for this inquiry (Best and Kahn, 2010). A standardized Philosophical Intelligence measure developed by the researcher was administered to the target population, and score sheets were subsequently compiled to get data. Following the compilation of scores, the necessary statistical analyses were conducted to interpret the gathered data. Following the study of statistical facts, the researcher reached many plausible conclusions. The study's population consists of graduate student teachers enrolled in Bachelor of Education programs at many Keralan universities, including the University of Calicut, Kerala University, and Mahatma Gandhi University. Using a stratified random selection technique, the study's samples are chosen. Strata like gender, location, and socioeconomic class are given the weight they deserve when choosing samples in this case. The research was performed with the Philosophical Intelligence Scale, which was developed by assigning appropriate weight to a number of philosophical intelligence-related ideas, and theoretical underpinnings. The 25 items on the standardized measure elicited answers that varied from "no," "rarely," "sometimes," "frequently," "almost always," and "I don't know," with scores spanning from 1 to 6. Therefore, the scale has a minimum score of 25, and a maximum score of 150. Using the test-retest method, the scale's reliability was determined to be 0,87 for the entire scale. To make sure the scale was legitimate, both face validity, and content validation were carried out.

RESULTS

Garrett (2005) asserts that the primary statistical approaches utilized in this study are as follows:

- Descriptive Statistics
- Test of significance of difference between means
- Percentage analysis

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- ANOVA
- Scheffe's post – hoc test

The attributes of the student instructors, the duration of the research, and the contextual factors are the primary limitations of this research. The subsequent are the primary delimitations:

- The study was restricted to the districts of Ernakulum, Thrissur, and Thiruvananthapuram.
- The study was restricted to graduate students who were professors at Calicut, Mahatma Gandhi, and Kerala universities.

The study was restricted to only three subsamples: socioeconomic level, gender, and location.

The descriptive statistics for the entire sample regarding the philosophical intelligence level of Kerala graduate student teachers are displayed below.

Table 1. Descriptive statistics for all graduate student teachers in Kerala who scored highly on the philosophical intelligence scale

Item	Mean	Median	SD	Skewness	Kurtosis
Level of Philosophical Intelligence among graduate student teachers of Kerala	93,72	95,0	19,6	- 0,420	0,305

Since the median and mean values in table 1 are very close to each other, the standard deviation shows that the distribution is not significantly off from normal, and the adverse skewness value shows that the population contains more higher outcomes, we can conclude that the distribution is platykurtic. The Kurtosis value exceeded 0,263.

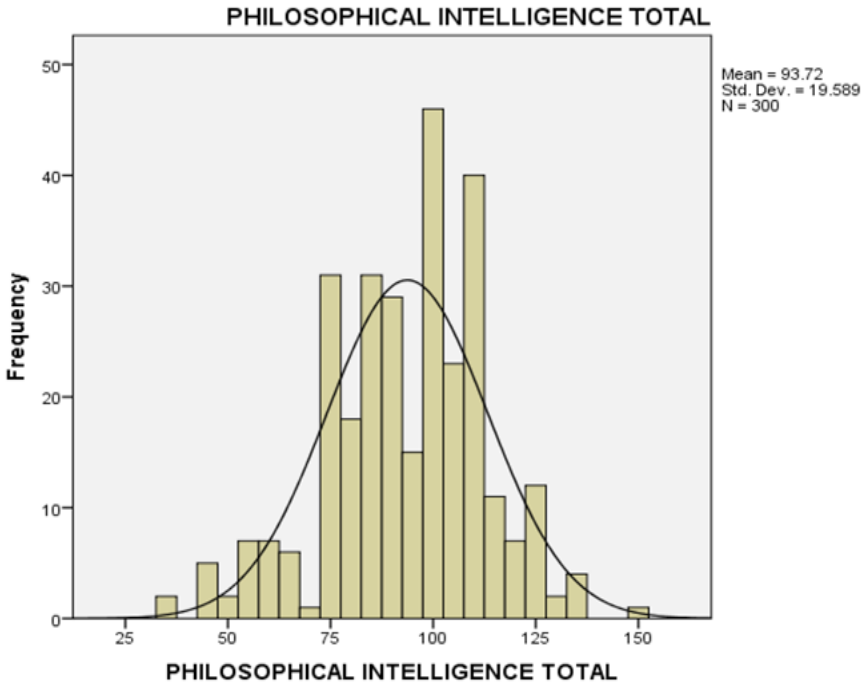

Figure 1. Histogram showing the overall Philosophical Intelligence scores of Kerala's graduate student teachers

Table 2 displays a percentage analysis of the Philosophical Intelligence scores of graduate student teachers in Kerala.

Table 2. Level of Philosophical Intelligence among graduate student teachers of Kerala

Item	Low-Level	Average Level	High Level
No. of student teachers	37	227	36
Percentage	12,3	75,7	12,0

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The majority of graduate student teachers have an average degree of philosophical intelligence, as can be seen from table 1. Figure 1 illustrates the disparity in graduate student teacher's philosophical intelligence levels.

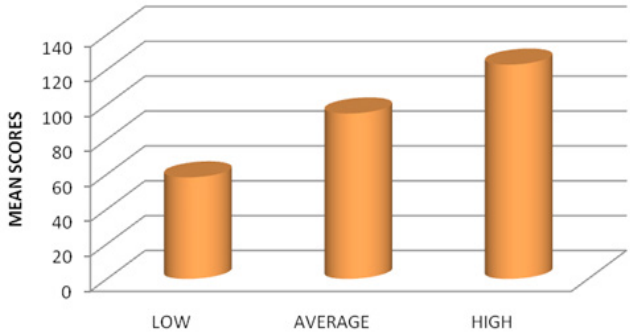

Figure 2. illustrates the differing levels of philosophical intelligence among graduate student teachers

Consequently, it was apparent from tables 1, and 2, along with figures 1 and 2, that the philosophical intelligence levels of graduate student teachers exhibited variability, with the majority demonstrating average intelligence. Thus, it was determined that there is a notable disparity in graduate student instructor's philosophical intelligence. Thus, Hypothesis I is approved.

Table 3 displays the descriptive statistics for the sub-sample of gender's total Philosophical Intelligence scores among graduate student instructors.

Table 3. Descriptive statistics for the subsample based on gender for the graduate student instructor's overall Philosophical Intelligence scores

Item	Sub sample	Mean	Median	SD	Skewness	Kurtosis
Philosophical Intelligence among Graduate Student teachers	Male	89,44	88,0	20,1	-0,161	-0,015
	Female	95,86	100,0	19,04	-0,557	0,713

It is evident from table 3 that the mean, and median values for graduate-level student educators who are male, and female are nearly identical.

According to the data on standard deviation, the distribution stays rather close to the usual range. The skewness values of graduate-level student educators exhibit a negative gender bias. As one advances up the scale, a more even distribution of scores becomes apparent. Since the kurtosis value of male graduate student teachers is less than 0,263, we may say that their distribution is leptokurtic. Graduate student teachers who are female have kurtosis levels higher than 0,263. The result is a platykurtic distribution.

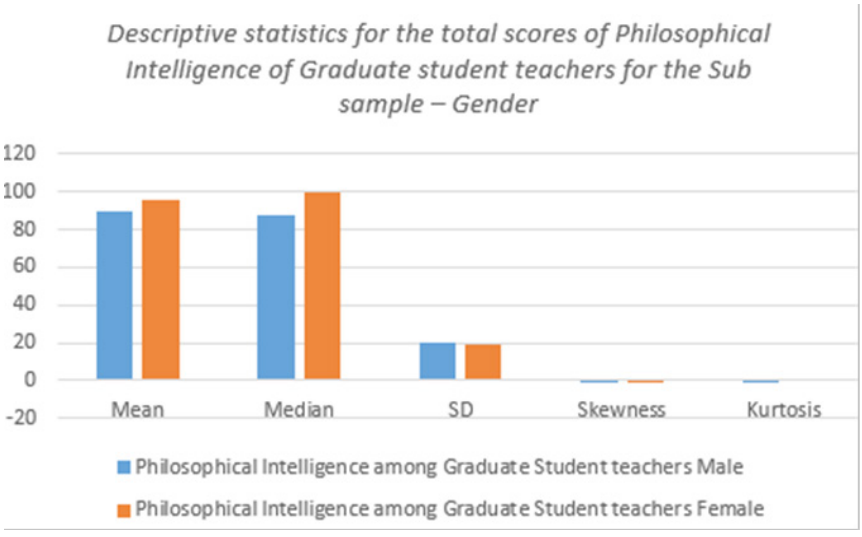

Figure 3. Descriptive statistics for the total scores of Philosophical Intelligence of Graduate student teachers for the Sub sample - Gender

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Using the significance of the difference between means, the mean Philosophical Intelligence scores of male, and female graduate student instructors were compared. A summary of the findings is provided in table 4.

Table 4. A comparative analysis of the mean scores of graduate-level student educators on the philosophical intelligence sub-sample, categorized by gender

Sub sample	Groups	N	Mean	Standard Deviation	t- value
Gender	Male	100	89,44	20,1	2,704**
	Female	200	95,86	19,04	

It was discovered from table 4 that the t-value (t = 2,704) is significant at the 0,01 level, meaning that the mean philosophical intelligence scores of male, and female graduate student teachers differ significantly. Thus, Hypothesis II is approved.

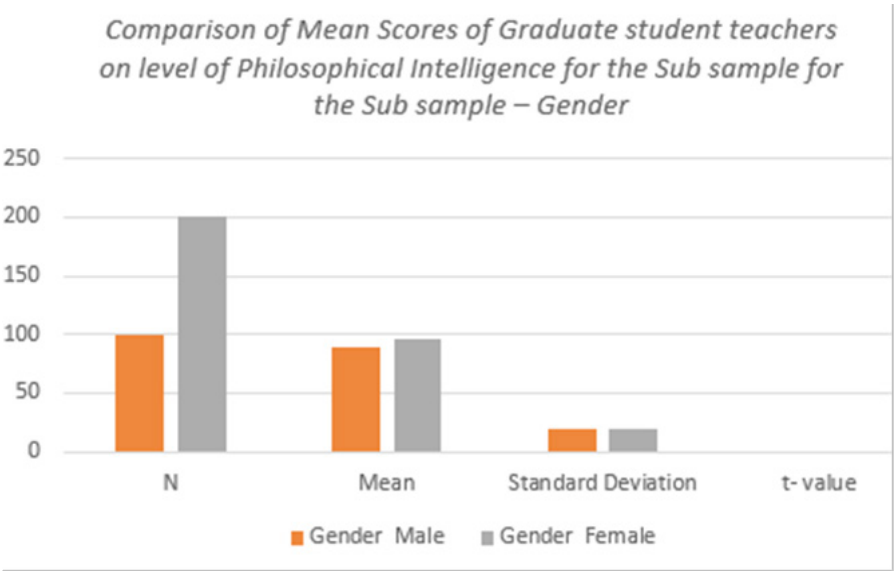

Figure 4. Comparison of Mean Scores of Graduate student teachers on level of Philosophical Intelligence for the Sub sample for the Sub sample - Gender

Table 5 displays the descriptive statistics for the overall Philosophical Intelligence scores of graduate student instructors for the sub-sample Locale.

Table 5. Descriptive statistics for the subsample-locale's overall Philosophical Intelligence scores for graduate student instructors

Item	Sub sample	Mean	Median	SD	Skewness	Kurtosis
Philosophical Intelligence among Graduate Student teachers	Rural	89,66	88,50	20,64	-0,247	-0,058
	Urban	97,28	101,0	17,95	-0,510	0,925

The mean, and median values of graduate student teachers in rural, and urban areas are nearly identical, as can be shown in table 5. Additionally, the standard deviation figures demonstrate how little the distribution deviates from normalcy. Graduate student instructors in rural, and urban areas had negatively skewed skewness values. This indicates that the higher end of the scale has more massed scores. For graduate student teachers in rural areas, the kurtosis value is smaller than 0,263, indicating a leptokurtic distribution. Urban graduate student teachers have a kurtosis value of more than 0,263. The distribution is hence platykurtic.

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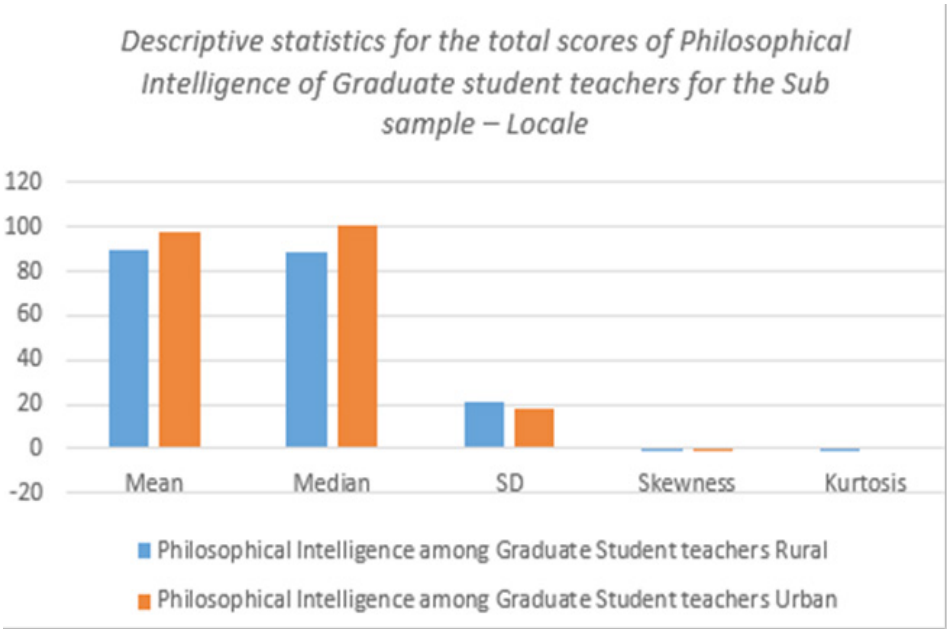

Figure 5. Descriptive statistics for the total scores of Philosophical Intelligence of Graduate student teachers for the Sub sample - Locale

Employing the importance of the disparity between means, the mean Philosophical Intelligence scores of graduate student instructors in rural, and urban areas were compared. A summary of the findings is provided in table 6.

The t-value (t = 3,42) obtained from table 6 is significant at the 0,01 level, suggesting that the mean philosophical intelligence scores of graduate student instructors in rural, and urban areas differ significantly. Thus, Hypothesis III is approved.

Table 6. Comparing the Mean Philosophical Intelligence Scores of Graduate Student Teachers by Sub-sample: Locale

Sub sample	Groups	N	Mean	Standard Deviation	t- value
Locale	Rural	140	89,66	20,64	3,42**
	Urban	160	97,28	17,95	

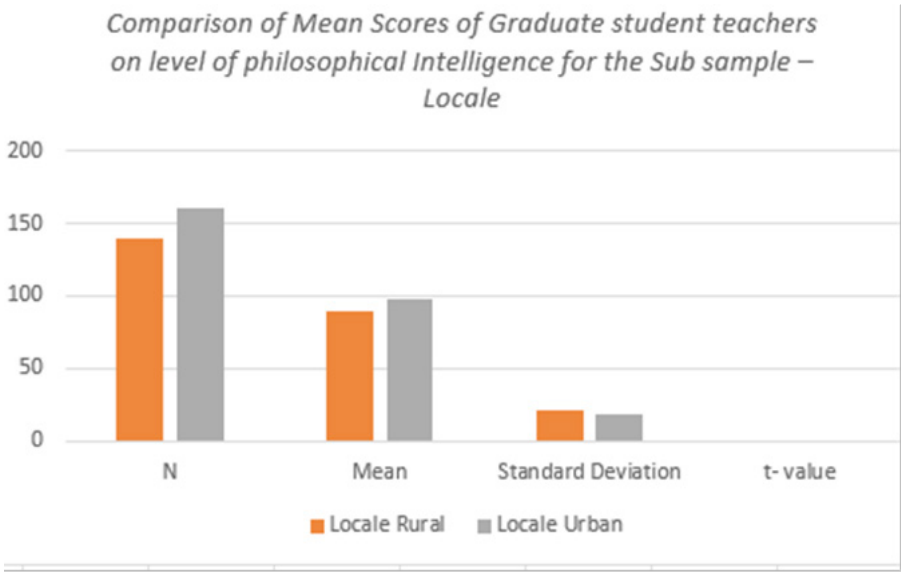

Figure 6. Comparison of Mean Scores of Graduate student teachers on level of philosophical Intelligence for the Sub sample - Locale

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Table 7. displays the descriptive statistics for the sub-sample socioeconomic status of the overall Philosophical Intelligence scores among graduate student instructors

Item	Sub sample	Mean	Median	SD	Skewness	Kurtosis
Philosophical Intelligence among Graduate Student teachers	High class	95,42	99,0	18,01	-0,400	1,104
	Upper Middle class	89,49	88,0	19,96	-0,169	0,014
	Lower Middle Class	96,56	101,0	20,75	-0,746	0,359

High-class, upper-middle-class, and lower-middle-class graduate student teachers have mean, and the medians that are virtually indistinguishable, according to table 7. Additionally, the standard deviation figures demonstrate how little the distributions depart from normalcy. Higher-class, upper-middle-class, and lower-middle-class graduate student teachers have negatively skewed skewness values. This indicates that the higher end of the scale has more massed scores. For upper-middle-class graduate student instructors, the distribution is leptokurtic since the kurtosis value is smaller than 0,263. Both upper-class, and lower-middle-class graduate student teachers have kurtosis values larger than 0,263. The distributions are hence platykurtic.

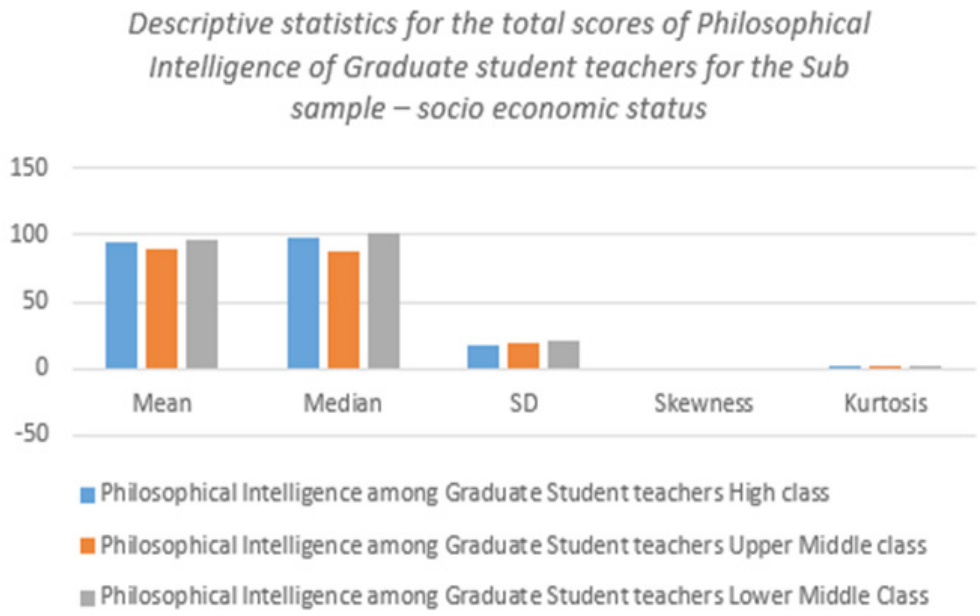

Figure 7. Descriptive statistics for the total scores of Philosophical Intelligence of Graduate student teachers for the Sub sample - socio economic status

The obtained data was subsequently analyzed using ANOVA. Table 8 presents a brief overview of the data and results obtained from the one-way ANOVA regarding the level of philosophical intelligence among graduate student instructors, categorized by socioeconomic status within the sub-sample.

Table 8. An overview of the one-way ANOVA of graduate student instructor's overall philosophical intelligence scores

Component	Source of Variation	Sum of Squares	Degrees of Freedom	Mean squares (Variance)	F value
Philosophical Intelligence among Graduate Student teachers	Between Groups	2792,569	2	1396,284	3,71
	Within Groups	111943,111	297	376,916	

Significant at 0,01 level

The tabulated value for equal degrees of freedom at the 0,01 significance level exceeds the F value of 3,71. This indicates that the graduate student teacher's levels of philosophical intelligence did not conform to discrete categories.

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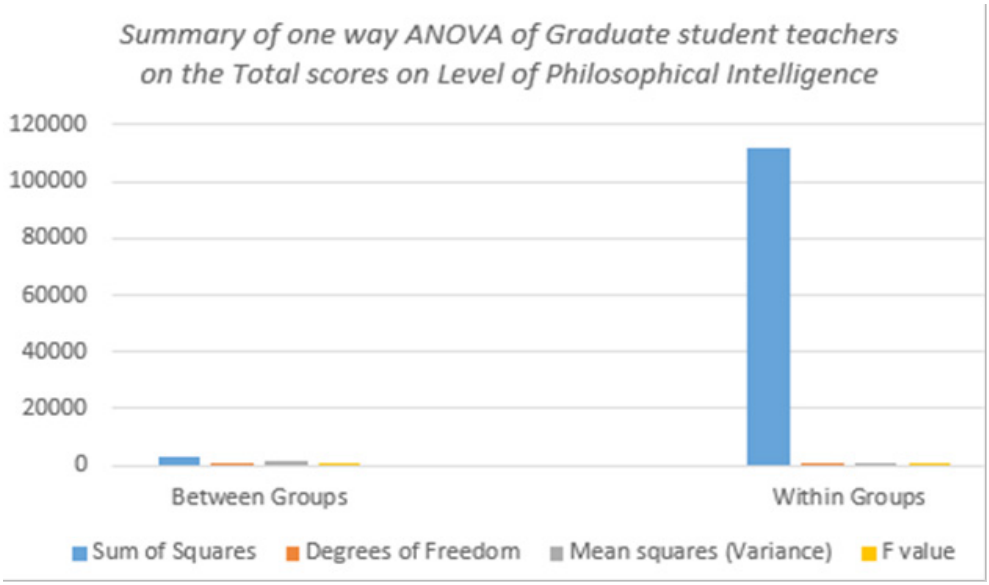

Figure 8. Summary of one way ANOVA of Graduate student teachers on the Total scores on Level of Philosophical Intelligence

According to tables 7 and 8, there is no distinction in the Philosophical Intelligence of graduate student teachers. The conclusion indicates that there is no substantial variation in the mean Philosophical Intelligence scores of graduate student instructors based on the sub-sample socioeconomic level, leading to the rejection of hypothesis.

DISCUSSION

The outcomes of this research contradict those of a study by Ishfaq, Vijaya, and Chitra (2023), Chris James (2021), Wan Maswati (2018), and Pauline (2015), which found that knowing the right philosophical principles, and using different philosophical approaches in the classroom would Assist educators in fostering pupil's higher-order thinking and reasoning abilities. Based on the results of the current study, graduate student teacher's philosophical intelligence is mediocre, regardless of their socioeconomic background. A significant discrepancy exists in the philosophical acumen of graduate student instructors. Generally speaking, graduate student instructor's philosophical intelligence is mediocre. There is a significant disparity in the philosophical intelligence of graduate student teachers based on the gender sub-sample. The level of philosophical intelligence exhibited by graduate student instructors, varies significantly depending on the sub-sample Locale. Based on the socioeconomic position of the subsample, there is no discernible variation in the philosophical intelligence of the graduate student teachers. As a fundamental element of professional development, reflective practices ought to emphasize in teacher education programs. Their capacity to participate in meaningful intellectual debate can be improved by incorporating classes, and activities that encourage philosophical inquiry, and critical thinking.

CONCLUSION

For graduate student instructors, philosophical intelligence is crucial because it allows them to critically examine, challenge presumptions, and consider the significance, and goal of education in great detail. Their ability to deal with challenging educational issues, make moral decisions, and adapt to different classroom conditions is developed. By developing philosophical intelligence, educators can assist their pupils in cultivating critical thinking skills, intellectual curiosity, and the creation of a thoughtful and friendly learning environment.

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FINANCING

None.

CONFLICT OF INTEREST

None.

AUTHORSHIP CONTRIBUTION

Conceptualization: Praseeda V, Vasuki N.
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Methodology: Praseeda V, Vasuki N.
Drafting - original draft: Praseeda V, Vasuki N.
Writing - proofreading and editing: Praseeda V, Vasuki N.