



## Challenges of Teaching Philosophy in the Absence of Educational Resources Among Eleventh Grade Teachers in Duhok Governorate Preparatory Schools

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### Abstract

This study provides empirical evidence on resource-related challenges in philosophy education and informs educational decision-makers about targeted support needs for philosophy teachers. This study aimed to identify the challenges of teaching philosophy in the absence of educational resources among eleventh grade teachers in Duhok Governorate preparatory schools according to the following variables: gender, years of teaching experience, academic qualification, and school location. The study sample included 132 male and female philosophy teachers. A questionnaire consisting of 27 items was developed based on relevant literature and distributed to the research sample during November 2025. The study found statistically significant differences at the 0.05 level between the means of sample responses according to gender, years of experience, and academic qualification variables, indicating that the absence of educational resources significantly impacts teaching effectiveness differently based on these demographic factors. Significant interaction effects were also found between gender and years of experience. However, no statistically significant differences were found regarding school location. Based on these findings, the researcher recommended several measures, most importantly the need for educational authorities to provide specialized philosophy resources, establish philosophy resource centers, allocate budgets for philosophical texts and materials, and provide professional development focused on teaching philosophy with limited resources. **Keywords:** Philosophy Education, Preparatory Schools, Eleventh Grade, Duhok, Teaching Challenges.

### Introduction

Philosophy education serves as a crucial vehicle for developing students' critical thinking, logical reasoning, ethical awareness, and capacity for reflective inquiry into fundamental questions about knowledge, existence, values, and human experience.<sup>1</sup> Unlike subjects focused primarily on conveying factual information, philosophy education cultivates habits of mind including questioning assumptions, examining arguments,

<sup>1</sup> Michael Hand and Carrie Winstanley, eds., *Philosophy in Schools* (Continuum, 2008).

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considering alternative perspectives, and engaging in sustained rational dialogue about complex issues.<sup>2</sup> These intellectual capacities prepare students for thoughtful participation in democratic societies where citizens must evaluate evidence, assess reasoning, and make informed judgments on matters of public concern.

The eleventh grade represents a particularly significant stage for philosophy education. Students at this level, typically aged 16-17 years, have developed cognitive capacities for abstract thinking and metacognition that enable meaningful engagement with philosophical questions.<sup>3</sup> At this developmental stage, questions about identity, morality, meaning, and purpose become personally significant, creating natural motivation to explore philosophical themes and develop intellectual frameworks for understanding themselves and their world.<sup>4</sup>

Effective philosophy teaching requires access to educational resources including primary philosophical texts, reference materials, visual aids, and multimedia resources. Philosophy depends fundamentally on texts as primary sources of philosophical ideas and arguments. Students need access to writings by philosophers to encounter philosophical thinking in authentic forms rather than merely learning about philosophy through secondary summaries.<sup>5</sup> However, the absence or inadequacy of these essential resources creates substantial challenges for philosophy teachers, forcing excessive reliance on textbook summaries, limiting student engagement with original philosophical arguments, and constraining opportunities for independent inquiry.<sup>6</sup>

#### *Review of Related Literature*

Recent scholarship has increasingly examined philosophy education challenges, though significant gaps remain regarding resource-related difficulties in under-resourced regions. Balcı and Eryılmaz (2024) investigated Philosophy for Children (P4C) activities on speaking skills among gifted students in Turkey, identifying resource availability as critical to program implementation.<sup>7</sup> Their study found that adequate materials significantly enhanced student engagement, though they noted resource limitations as a persistent challenge. However, their research focused on gifted education rather than general secondary philosophy teaching and did not examine how resource scarcity differentially affects teachers based on demographic characteristics.

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<sup>2</sup> Matthew Lipman, *Thinking in Education, 2nd Ed*, Thinking in Education, 2nd Ed (Cambridge University Press, 2003), xii, 304, <https://doi.org/10.1017/CBO9780511840272>.

<sup>3</sup> Lu Leng, "The Role of Philosophical Inquiry in Helping Students Engage in Learning," *Frontiers in Psychology* 11 (March 2020), <https://doi.org/10.3389/fpsyg.2020.00449>; Zehra Betül Şişman et al., "The Effect Of P4C Application In The Philosophy For Children Education Program On The Metacognitive Awareness Of Secondary School 5th Grade Students," *International Journal of Education, Technology and Science* 3, no. 3 (2023): 406–26.

<sup>4</sup> Chi-Ming Lam, "The Impact of Philosophy for Children on Teachers' Professional Development," *Teachers and Teaching* 27, no. 7 (2021): 642–55, <https://doi.org/10.1080/13540602.2021.1986693>.

<sup>5</sup> Søren Sindberg Jensen, "The Art of Facilitating Philosophical Dialogues from the Perspective of Teachers," *Educational Studies* 49, no. 1 (2023): 116–30, <https://doi.org/10.1080/03055698.2020.1835612>; Marie-France Daniel et al., "Philosophical Reflection and Cooperative Practices in an Elementary School Mathematics Classroom," *Canadian Journal of Education/Revue Canadienne de l'éducation* 24, no. 4 (1999): 426–40.

<sup>6</sup> Jana Mohr Lone and Michael D. Burroughs, *Philosophy in Education: Questioning and Dialogue in Schools* (Bloomsbury Academic, 2016).

<sup>7</sup> Emine Balcı and Ramazan Eryılmaz, "The Impact of Philosophy for Children (P4C) Activities on Enhancing the Speaking Skills of Gifted Students," *Frontiers in Psychology* 15 (October 2024), <https://doi.org/10.3389/fpsyg.2024.1451532>.

Ab Wahab et al. (2022) conducted a systematic review of P4C programs globally, documenting impacts on higher-order thinking skills.<sup>8</sup> Their review revealed that resource constraints—particularly lack of philosophical texts and reference materials—limit teachers' ability to implement inquiry-based pedagogies effectively. While their comprehensive review identified resource challenges as a persistent barrier, it did not provide context-specific evidence from developing regions or examine how teacher characteristics such as gender, experience, and qualification interact to shape resource challenges.

Zulkifli and Hashim (2020) examined P4C implementation in secondary moral education in Malaysia, demonstrating that philosophy programs improve critical thinking when adequately supported.<sup>9</sup> Their quasi-experimental study identified lack of materials as a constraint affecting novice teachers more severely than experienced ones, suggesting experience as a moderating variable. However, they did not investigate whether this pattern varies by gender or academic background, nor did they examine interaction effects between teacher characteristics.

Research on educational challenges in developing contexts has documented systematic resource deficits. Zickafoose et al. (2024) examined barriers to quality education in sub-Saharan Africa, identifying funding constraints, inadequate infrastructure, and insufficient teaching materials as primary obstacles.<sup>10</sup> Their content analysis revealed that resource scarcity affects teacher effectiveness and student outcomes across all educational levels. While their findings highlighted systemic challenges, their study did not specifically address philosophy education or examine how different teacher populations experience resource limitations.

García-Moriyón et al. (2020) investigated P4C's contribution to moral education, demonstrating positive impacts on ethical reasoning when students have access to diverse philosophical materials.<sup>11</sup> Their research emphasized that resource-rich environments enable teachers to implement dialogical approaches effectively. However, their study focused primarily on program outcomes rather than systematically assessing resource-related challenges teachers face across different professional and demographic contexts.

Lam (2021) explored P4C's impact on teachers' professional development, finding that teachers with specialized training reported greater confidence navigating resource constraints.<sup>12</sup> The study suggested that academic qualification moderates resource-related challenges, though it did not quantitatively test interaction effects or provide evidence from non-Western contexts. Additionally, gender differences in experiencing resource challenges were not examined.

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<sup>8</sup> Mohd Kaziman Ab Wahab et al., "Impact of Philosophy for Children and Its Challenges: A Systematic Review," *Children* 9, no. 11 (2022), <https://doi.org/10.3390/children9111671>.

<sup>9</sup> Hafizhah Zulkifli and Rosnani Hashim, "Philosophy for Children (P4C) in Improving Critical Thinking in a Secondary Moral Education Class," *International Journal of Learning, Teaching and Educational Research* 19, no. 2 (2020), <https://www.ijlter.org/index.php/ijlter/article/view/1824>.

<sup>10</sup> Alexis Zickafoose et al., "Barriers and Challenges Affecting Quality Education (Sustainable Development Goal #4) in Sub-Saharan Africa by 2030," *Sustainability* 16, no. 7 (2024), <https://doi.org/10.3390/su16072657>.

<sup>11</sup> Félix García-Moriyón et al., "Research in Moral Education: The Contribution of P4C to the Moral Growth of Students," *Education Sciences* 10, no. 4 (2020), <https://doi.org/10.3390/educsci10040119>.

<sup>12</sup> Lam, "The Impact of Philosophy for Children on Teachers' Professional Development."

Unal and Gunes (2024) examined P4C activities' effects on moral perception among preschool children in Turkey, noting that implementation challenges intensified when educational resources were inadequate.<sup>13</sup> Their mixed-methods study revealed that teachers struggled to maintain program quality without access to appropriate materials, though their focus on early childhood education limits transferability to secondary contexts.

Recent research on educational philosophy in globalized contexts has emphasized the need for context-specific investigations. Rudenko et al. (2025) conducted a systematic literature review on educational challenges through philosophical lenses, calling for empirical studies examining how global educational frameworks translate to local contexts, particularly in developing regions.<sup>14</sup> Their review identified a critical gap: most philosophy education research originates from Western contexts, with minimal investigation of challenges in Middle Eastern or developing educational systems.

#### *Knowledge Gap and Research Contribution*

While recent literature has advanced understanding of philosophy education challenges, three critical gaps remain. First, empirical research on philosophy education in developing and non-Western contexts is severely limited. Nearly all studies conducted in the last five years have focused on European, Asian, or North American educational systems,<sup>15</sup> leaving philosophy education challenges in regions such as the Kurdistan Region of Iraq largely unexplored. This geographic gap limits understanding of how resource constraints operate in contexts where philosophy education is valued but systematically under-resourced.

Second, existing research has not systematically examined how multiple teacher characteristics interact to shape experiences of resource scarcity. While individual studies have identified experience<sup>16</sup> and academic qualification<sup>17</sup> as potentially relevant variables, no study has investigated their combined and interactive effects, particularly including gender as a variable. Recent scholarship emphasizes that professional experiences emerge from complex interactions among demographic and professional characteristics,<sup>18</sup> yet quantitative evidence on such interactions in philosophy education remains absent.

Third, despite calls for context-specific research to inform locally relevant policies,<sup>19</sup> no systematic investigation has examined resource-related challenges among philosophy

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<sup>13</sup> Ummuhan Unal and Gokhan Gunes, "The Effect of Philosophy for Children (P4C) Activities on the Development of Moral Perception and Social Rules of Preschool Children," *Journal of Childhood, Education & Society* 5, no. 2 (2024): 238–55, <https://doi.org/10.37291/2717638X.202452392>.

<sup>14</sup> Olga Rudenko et al., "Educational Challenges of the Future through the Prism of Philosophy in the Context of Globalisation: Systematic Literature Review," *International Journal on Culture, History, and Religion* 7, no. S11 (2025): 585–610, <https://doi.org/10.63931/ijchr.v7iS11.151>.

<sup>15</sup> Lam, "The Impact of Philosophy for Children on Teachers' Professional Development"; Balci and Eryilmaz, "The Impact of Philosophy for Children (P4C) Activities on Enhancing the Speaking Skills of Gifted Students"; Wahab et al., "Impact of Philosophy for Children and Its Challenges."

<sup>16</sup> Zulkifli and Hashim, "Philosophy for Children (P4C) in Improving Critical Thinking in a Secondary Moral Education Class."

<sup>17</sup> Lam, "The Impact of Philosophy for Children on Teachers' Professional Development."

<sup>18</sup> Rudenko et al., "Educational Challenges of the Future through the Prism of Philosophy in the Context of Globalisation."

<sup>19</sup> Zickafoose et al., "Barriers and Challenges Affecting Quality Education (Sustainable Development Goal #4) in Sub-Saharan Africa by 2030"; Rudenko et al., "Educational Challenges of the Future through the Prism of Philosophy in the Context of Globalisation."

teachers in Iraqi Kurdistan. This represents a significant gap given the region's investment in curriculum development and educational reform, including introduction of philosophy education in secondary schools.

This study directly addresses these gaps by providing the first systematic, quantitative investigation of resource-related challenges in philosophy education within Duhok Governorate preparatory schools. The study's contribution is threefold: (1) it extends empirical research on philosophy education to an under-studied regional context, providing evidence from the Kurdistan Region; (2) it examines not only main effects of teacher characteristics but also their interaction effects, particularly the previously unexplored interaction between gender and teaching experience; and (3) it generates context-specific evidence to inform targeted policy interventions for supporting philosophy teachers in resource-scarce environments. By employing rigorous statistical analysis to identify differential impacts across teacher groups, this study offers empirical evidence that can guide equitable resource allocation and professional development strategies tailored to the specific needs of different teacher populations in the Kurdistan Region and similar contexts globally.

### *Research Problem*

Through engagement with philosophy teachers in preparatory schools in Duhok Governorate, resource scarcity has emerged as a persistent concern affecting instructional quality, teacher satisfaction, and student learning. Teachers report frustrations with inability to provide students access to actual philosophical texts, excessive reliance on summaries, and awareness that their students' philosophical education is impoverished by resource limitations. Despite recognition of these challenges, systematic research documenting specific difficulties philosophy teachers face remains absent in the local context.

### *Research Questions*

This study investigates: What are the challenges of teaching philosophy in the absence of educational resources among eleventh grade teachers in Duhok Governorate preparatory schools? Specific questions include:

1. What is the overall level of challenges that philosophy teachers face when educational resources are absent or inadequate?
2. Do these challenges differ significantly based on teachers' gender?
3. Do the challenges differ significantly based on teachers' years of teaching experience?
4. Do the challenges differ significantly based on teachers' academic qualifications?
5. Do the challenges differ significantly based on school location?
6. Is there a significant interaction effect between teacher gender and years of experience on experienced challenges?

### *Research Objectives*

The study aims to: (1) identify and document specific challenges philosophy teachers face when teaching without adequate resources; (2) assess overall challenge levels; (3) examine differences based on gender and experience; (4) investigate the role of academic qualification; (5) determine whether challenges vary by school location; (6) analyze interaction effects between teacher characteristics; and (7) provide evidence-based recommendations for educational authorities regarding resource provision.

### *Research Hypotheses*

Ho1: There are no statistically significant differences at  $\alpha = 0.05$  between the sample mean and hypothetical mean regarding challenges of teaching philosophy in absence of educational resources.

Ho2: There are no statistically significant differences at  $\alpha = 0.05$  in challenges attributed to teacher gender.

Ho3: There are no statistically significant differences at  $\alpha = 0.05$  in challenges attributed to years of experience.

Ho4: There are no statistically significant differences at  $\alpha = 0.05$  in challenges attributed to academic qualification.

Ho5: There are no statistically significant differences at  $\alpha = 0.05$  in challenges attributed to school location.

Ho6: There are no statistically significant interaction effects at  $\alpha = 0.05$  between gender and years of experience.

## **Research Method**

### *Research Approach*

This study employs a descriptive-analytical research approach suitable for investigating phenomena in natural settings through systematic data collection and analysis.<sup>20</sup> The approach enables documenting teachers' experiences with resource-related challenges, analyzing patterns and relationships among variables, and developing evidence-based conclusions through structured questionnaire data collection and statistical analysis.

### *Study Population*

The population consists of philosophy teachers teaching eleventh grade in preparatory schools throughout Duhok Governorate during the 2025-2026 academic year. This population includes male and female teachers with varying experience levels and qualifications, teaching eleventh grade philosophy courses in preparatory schools across urban, suburban, and rural areas.<sup>21</sup> These teachers are responsible for teaching principles of philosophy as defined in approved curriculum, implementing appropriate pedagogies, assessing student progress, and developing students' philosophical thinking and understanding.

### *Study Sample*

The study sample consists of 132 philosophy teachers teaching eleventh grade, selected through stratified random sampling ensuring representation of different teacher characteristics and school contexts.<sup>22</sup> Sample size was determined to ensure adequate statistical power while remaining feasible. The sampling procedure involved identifying all preparatory schools with eleventh grade in Duhok Governorate, stratifying by location, randomly selecting schools within strata, and inviting all eleventh grade philosophy teachers in selected schools to participate voluntarily.

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<sup>20</sup> John W. Creswell and J. David Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (SAGE Publications, 2017).

<sup>21</sup> James H. McMillan and Sally Schumacher, *Research in Education: Evidence-Based Inquiry, 7th Edition. MyEducationLab Series*, in Pearson (Pearson, 2010).

<sup>22</sup> Sharon L. Lohr, *Sampling: Design and Analysis*, 3rd ed. (Chapman and Hall/CRC, 2021), <https://doi.org/10.1201/9780429298899>.

**Table 1. Distribution of Study Sample by Demographics and Professional Characteristics**

| <b>Variable</b>               | <b>Category</b>            | <b>Frequency</b> | <b>Percentage</b> |
|-------------------------------|----------------------------|------------------|-------------------|
| <b>Gender</b>                 | Male                       | 73               | 55.3%             |
|                               | Female                     | 59               | 44.7%             |
|                               | <b>Total</b>               | <b>132</b>       | <b>100%</b>       |
| <b>Years of Experience</b>    | Less than 5 years          | 41               | 31.1%             |
|                               | 5-10 years                 | 56               | 42.4%             |
|                               | More than 10 years         | 35               | 26.5%             |
|                               | <b>Total</b>               | <b>132</b>       | <b>100%</b>       |
| <b>Academic Qualification</b> | Bachelor's in Philosophy   | 48               | 36.4%             |
|                               | Bachelor's in other fields | 57               | 43.2%             |
|                               | Master's degree or higher  | 27               | 20.4%             |
|                               | <b>Total</b>               | <b>132</b>       | <b>100%</b>       |
| <b>School Location</b>        | Urban                      | 76               | 57.6%             |
|                               | Suburban                   | 34               | 25.8%             |
|                               | Rural                      | 22               | 16.6%             |
|                               | <b>Total</b>               | <b>132</b>       | <b>100%</b>       |

The sample shows gender distribution with 55.3 percent male and 44.7 percent female teachers, largest group being mid-career teachers at 42.4 percent, majority holding bachelor's degrees in fields other than philosophy at 43.2 percent, and predominance of urban school teachers at 57.6 percent.<sup>23</sup>

*Research Instrument*

The primary instrument is a structured questionnaire assessing challenges teachers face when teaching philosophy without adequate educational resources. Development involved literature review on philosophy education, resource challenges, and pedagogical approaches, generating initial items through literature and consultation with philosophy educators, expert review by seven specialists in philosophy education, curriculum and instruction, and educational measurement evaluating relevance and clarity, and pilot testing with 19 philosophy teachers not in main sample providing feedback.<sup>24</sup>

The final questionnaire has two sections. Section one collects demographic information including gender, years of experience, academic qualification, and school location. Section two contains 27 items addressing challenges across five dimensions: philosophical text and primary source difficulties (6 items) addressing lack of philosophical writings, absence of diverse philosophical texts, insufficient classic philosophy texts, no contemporary philosophy materials, and limited access to philosophical excerpts; reference and supplementary material difficulties (6 items) addressing absence of philosophy dictionaries and encyclopedias, lack of philosophy anthologies, insufficient biographical materials about philosophers, no philosophy journals or periodicals, and limited secondary literature; visual and multimedia resource difficulties (5 items) addressing lack of visual aids for philosophical concepts, absence of videos or documentaries, no multimedia presentations, insufficient charts or diagrams, and limited engaging materials; library and research resource difficulties (5 items) addressing absence of philosophy library collections,

<sup>23</sup> Jack R. Fraenkel and Norman E. Wallen, *How to Design and Evaluate Research in Education* (McGraw-Hill, 2006).

<sup>24</sup> Arlene Fink, *How to Conduct Surveys: A Step-by-Step Guide. Sixth Edition*, in *SAGE Publications Ltd (CA)* (SAGE Publications, 2016).

no access to research databases, insufficient resources for student inquiry, lack of current philosophy materials, and limited independent study resources; and assessment and pedagogical material difficulties (5 items) addressing lack of materials for varied teaching approaches, insufficient resources for student activities, no materials for differentiation, limited assessment resources, and constraints on inquiry-based learning.<sup>25</sup>

Each item uses a 5-point Likert scale from Strongly Agree worth 5 points to Strongly Disagree worth 1 point. Total scores range from 27 minimum to 135 maximum.<sup>26</sup>

#### *Instrument Validity and Reliability*

Content validity was established through expert review with items retained if approved by at least 85 percent of seven experts, meaning 6 of 7. All 27 items met this criterion with minor revisions. Experts confirmed comprehensive coverage and appropriateness.<sup>27</sup> Reliability assessed using Cronbach's alpha based on pilot responses yielded overall alpha of 0.94 indicating excellent internal consistency. Dimension-specific alphas were: philosophical texts 0.89, reference materials 0.91, visual and multimedia 0.87, library resources 0.88, and assessment materials 0.86, all exceeding 0.85.<sup>28</sup>

#### *Data Collection Procedures*

Data collection occurred during November 2025 following approvals and informed consent. Formal permission was obtained, schools were contacted, teachers were assured of confidentiality, consent was collected, and questionnaires were distributed with two-week completion period and reminders.<sup>29</sup> The process yielded 132 completed questionnaires from approximately 153 contacted teachers, representing 86 percent response rate.

#### *Data Analysis Procedures*

Data were entered into SPSS version 28 and screened with less than 2 percent missing data handled through listwise deletion.<sup>30</sup> Analyses included descriptive statistics, one-sample t-test comparing sample mean to hypothetical mean of 81, independent samples t-test for gender, one-way ANOVA for experience, qualification, and location with Scheffe post-hoc tests, two-way ANOVA for gender by experience interaction, and effect size calculations.<sup>31</sup> Significance level was alpha equals 0.05 with two-tailed tests. Assumptions were checked and met.

## **Results and Discussion**

### *Results*

Results are presented through statistical analyses addressing research questions and testing hypotheses regarding challenges philosophy teachers face when educational resources are absent.

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<sup>25</sup> Bill Gillham, *Developing a Questionnaire* (A&C Black, 2008).

<sup>26</sup> A. N. Oppenheim, *Questionnaire Design, Interviewing and Attitude Measurement, New Ed*, Questionnaire Design, Interviewing and Attitude Measurement, New Ed (Pinter Publishers, 1992), 303.

<sup>27</sup> Arlene Fink and Mark S. Litwin, *How to Measure Survey Reliability and Validity* (SAGE, 1995).

<sup>28</sup> Mohsen Tavakol and Reg Dennick, "Making Sense of Cronbach's Alpha," *International Journal of Medical Education* 2 (June 2011): 53–55, <https://doi.org/10.5116/ijme.4dfb.8dfd>.

<sup>29</sup> Zoltan Dörnyei, *Research Methods in Applied Linguistics: Quantitative, Qualitative, and Mixed Methodologies* (OUP Oxford, 2007).

<sup>30</sup> Barbara G. Tabachnick and Linda S. Fidell, *Using Multivariate Statistics* (Pearson, 2018).

<sup>31</sup> Frederick J. Gravetter and Larry B. Wallnau, *Statistics for the Behavioral Sciences*, 10th ed. (Cengage Learning, 2017).

The first analysis examined overall challenge levels using one-sample t-test comparing sample mean to hypothetical mean of 81 representing scale midpoint.

**Table 2. Results of One-Sample t-test**

| Sample | Hypothetical Mean | Mean   | Std. Deviation | t. value     |                      | Result                                      |
|--------|-------------------|--------|----------------|--------------|----------------------|---|
|        |                   |        |                | t-calculated | t-tabulated          |   |
| 132    | 81                | 103.47 | 13.24          | 19.512       | 1.657<br>(0.05)(131) | There is a difference in favour of the Mean |

Results demonstrate sample mean of 103.47 significantly higher than hypothetical mean of 81, with calculated t-value of 19.512 exceeding tabulated value of 1.657 at significance level 0.05 with 131 degrees of freedom. The first null hypothesis is rejected, demonstrating teachers report experiencing substantial challenges.

The second analysis examined differences across years of experience using one-way ANOVA.

**Table 3. Results of the One Way ANOVA Test According to Years of Experience Variable**

| Source of Variation | Sum of Squares | df  | Mean Square | F-calculated | P-value | F-tabulated         |
|---------------------|----------------|-----|-------------|--------------|---------|---------------------|
| Between Groups      | 2,147.38       | 2   | 1,073.69    | 6.842        | 0.0015  | 3.068 (2-129)(0.05) |
| Within Groups       | 20,238.95      | 129 | 156.89      |              |         |                     |
| Total               | 22,386.33      | 131 |             |              |         |                     |

ANOVA results reveal statistically significant differences across experience groups with calculated F-value of 6.842 exceeding tabulated value of 3.068 and p-value of 0.0015 below significance level 0.05. Scheffe post-hoc tests indicated teachers with less than 5 years experience reported significantly higher challenges with mean of 108.73 compared to those with 5-10 years at mean of 102.39 and more than 10 years at mean of 98.26. The third null hypothesis is rejected.

The third analysis examined interaction effects using two-way ANOVA testing main effects and interaction between gender and years of experience.

**Table 4. Results of Tests of Between-Subjects Effects According to Variables (Gender, Years of Experience, and Interaction)**

| Source of Variation          | Type III Sum of Squares | df  | Mean Square | F-calculated | Sig-value | F-tabulated            |
|------------------------------|-------------------------|-----|-------------|--------------|-----------|------------------------|
| GENDER                       | 1,254.83                | 1   | 1,254.83    | 8.127        | 0.005     | 3.917<br>(0.05)(1-126) |
| YEARS OF EXPERIENCE          | 2,089.47                | 2   | 1,044.74    | 6.767        | 0.002     |                        |
| GENDER * YEARS OF EXPERIENCE | 987.62                  | 2   | 493.81      | 3.198        | 0.044     |                        |
| Error                        | 19,456.28               | 126 | 154.41      |              |           |                        |
| Total                        | 1,437,892.00            | 132 |             |              |           |                        |

Two-way ANOVA confirms significant main effects for gender with F-value 8.127 and p-value 0.005, and years of experience with F-value 6.767 and p-value 0.002, both exceeding tabulated F-value of 3.917. Significantly, the interaction effect between gender and years of experience is statistically significant with F-value 3.198 and p-value 0.044, indicating the effect of experience on challenges differs for male versus female teachers. Male teachers showed mean of 106.82 compared to female teachers' mean of 99.47. The second and sixth null hypotheses are rejected.

Regarding academic qualification, one-way ANOVA comparing three qualification groups yielded F-value of 5.234 with p-value 0.007, indicating significant differences. Teachers with bachelor's in other fields reported highest challenges with mean 107.19, followed by bachelor's in philosophy at 102.54, and master's or higher at 96.33. The fourth null hypothesis is rejected.

Regarding school location, one-way ANOVA comparing three location groups yielded F-value of 1.847 with p-value 0.162, indicating no significant differences. Urban teachers reported mean 104.28, suburban 103.12, and rural 100.95. The fifth null hypothesis is retained.

#### *Discussion*

The present study sought to examine the challenges of teaching philosophy in the absence of educational resources among eleventh grade teachers in preparatory schools in Duhok Governorate, and to determine whether these challenges vary according to gender, years of teaching experience, academic qualification, and school location. The findings provide clear empirical evidence that resource scarcity represents a fundamental constraint on philosophy education, with important variations across different teacher populations.

The first research question asked about the overall level of challenges philosophy teachers face when educational resources are inadequate. Results demonstrated that the sample mean was significantly higher than the hypothetical mean, leading to rejection of the first null hypothesis. This finding is both statistically significant and practically meaningful, indicating that philosophy teachers experience substantial and pervasive difficulties when essential educational resources are absent. This result matters because it confirms that resource scarcity is not a marginal issue but a critical barrier to quality philosophy teaching. Philosophy is fundamentally a text-based discipline where engagement with philosophical writings is essential for authentic philosophical education.<sup>32</sup> When teachers lack access to philosophical texts, reference materials, and supporting instructional tools, they cannot provide the rich philosophical education that develops students' capacity for philosophical thinking and inquiry. Instead, philosophy instruction becomes reduced to learning about philosophy through summaries rather than doing philosophy through direct engagement with arguments and ideas. Students may memorize philosophical positions and terminology

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<sup>32</sup> Daniel et al., "Philosophical Reflection and Cooperative Practices in an Elementary School Mathematics Classroom"; Karen S. Emmerman, "Is That a Philosophical Question? The Philosopher as Teacher," *Metaphilosophy* 52, no. 2 (2021): 302–20, <https://doi.org/10.1111/meta.12484>; Leng, "The Role of Philosophical Inquiry in Helping Students Engage in Learning"; Kerstin Michalik, "Philosophical Inquiry with Children: Inviting Uncertainty into the Classroom," in *Fostering Inclusion in Education: Alternative Approaches to Progressive Educational Practices*, ed. Enrico Postiglione (Springer International Publishing, 2022), [https://doi.org/10.1007/978-3-031-07492-9\\_6](https://doi.org/10.1007/978-3-031-07492-9_6).

without developing the skills to read, interpret, and evaluate philosophical writing—precisely the competencies that philosophy education aims to cultivate.

This finding aligns with recent research documenting resource challenges in philosophy education globally. Ab Wahab et al. (2022) identified resource constraints as a persistent barrier limiting teachers' ability to implement inquiry-based pedagogies effectively in their systematic review of Philosophy for Children programs.<sup>33</sup> Similarly, García-Moriyón et al. (2020) demonstrated that resource-rich environments enable teachers to implement dialogical approaches more effectively, while resource scarcity constrains pedagogical depth.<sup>34</sup> The present study extends these findings by providing context-specific quantitative evidence from a developing region where philosophy education is valued but systematically under-resourced, confirming that resource challenges documented in other contexts also characterize philosophy teaching in the Kurdistan Region.

The second research question examined whether challenges differ based on teachers' gender. Results revealed statistically significant differences, with male teachers reporting higher challenge levels than female teachers, leading to rejection of the second null hypothesis. This gender difference invites interpretation within the specific context of philosophy teaching in Duhok Governorate. One plausible explanation relates to potential differences in pedagogical approaches, where male teachers may emphasize resource-intensive instructional methods that are more severely affected by resource shortages. Alternatively, professional socialization and networks may differ by gender in the local context, affecting resource access and acquisition strategies. Cultural factors specific to the region may also influence how teachers of different genders navigate resource constraints and seek support. While limited research has directly examined gender differences in philosophy teaching, this result aligns with broader educational literature suggesting that professional experiences and access to resources may be shaped by gender in context-specific ways.<sup>35</sup> Importantly, both male and female teachers reported challenge levels well above the scale midpoint, confirming that resource scarcity affects all teachers regardless of gender, though the degree of impact varies.

The third research question investigated whether challenges vary by years of teaching experience. ANOVA results showed significant differences across experience groups, with novice teachers reporting significantly higher challenges than their more experienced counterparts, resulting in rejection of the third null hypothesis. This finding aligns with theoretical expectations and prior research. Burgh and Yorshansky (2011)<sup>36</sup> noted that professional experience enables teachers to develop adaptive strategies and accumulate resources over time. Reznitskaya and Wilkinson (2015)<sup>37</sup> similarly found that novice teachers face greater difficulties adapting to resource constraints than experienced teachers. The present study confirms this pattern in the Duhok context. Beginning philosophy teachers

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<sup>33</sup> Wahab et al., "Impact of Philosophy for Children and Its Challenges."

<sup>34</sup> García-Moriyón et al., "Research in Moral Education."

<sup>35</sup> Michael Waring, *Finding Your Theoretical Position* (SAGE Publications, 2021), 15–22.

<sup>36</sup> Gilbert Burgh and Mor Yorshansky, "Communities of Inquiry: Politics, Power and Group Dynamics," *Educational Philosophy and Theory* 43, no. 5 (2011): 436–52, <https://doi.org/10.1111/j.1469-5812.2007.00389.x>.

<sup>37</sup> Alina Reznitskaya and Ian Wilkinson, *Professional Development in Dialogic Teaching: Helping Teachers Promote Argument Literacy* (2015), 219–32.

have not had time to accumulate personal resource collections that experienced teachers build over their careers. They face the compound challenge of simultaneously developing content knowledge, pedagogical skills, classroom management abilities, and resource collections—a burden that experienced teachers have distributed across many years. The significantly higher challenges reported by teachers with less than five years of experience suggest particular vulnerability among this group and indicate clear need for targeted support during early career stages.

A particularly important contribution of this study emerges from the sixth research question, which examined interaction effects between gender and years of experience. Two-way ANOVA revealed a significant interaction, leading to rejection of the sixth null hypothesis. Analysis of means indicated that gender differences are most pronounced among novice teachers, with male beginning teachers reporting the highest challenges, while gender differences diminish among more experienced teachers. This interaction effect has not been reported in prior philosophy education literature and represents a novel finding. The interaction suggests that male and female teachers may develop different resource acquisition and utilization strategies over career progression, or that early career challenges affect male and female teachers differently due to socialization patterns, professional networks, or institutional factors. From a theoretical perspective, this finding demonstrates that professional experiences cannot be fully understood by examining demographic variables in isolation but emerge from complex interactions among multiple characteristics. Contextually, the finding may reflect gendered differences in how beginning teachers access informal support systems, navigate institutional structures, or receive mentoring in the local educational environment. This complex pattern warrants further investigation to understand underlying mechanisms and inform differentiated support strategies.

The fourth research question examined whether challenges differ by academic qualification. Results showed significant differences among qualification groups, with teachers holding bachelor's degrees in fields other than philosophy reporting the highest challenges, followed by those with bachelor's degrees in philosophy, while teachers with master's degrees or higher reported the lowest levels, leading to rejection of the fourth null hypothesis. This pattern can be explained through differences in subject-matter expertise and familiarity with philosophical literature. Teachers without specialized training in philosophy likely have less familiarity with philosophical texts, less developed professional networks in philosophy education, and less confidence navigating philosophical resources. Teachers with specialized philosophy education possess advantages in content knowledge and resource familiarity that help partially mitigate resource constraints. This finding aligns with Lam's (2021)<sup>38</sup> research showing that teachers with specialized training reported greater confidence navigating resource limitations. However, a critical observation is that even teachers with advanced philosophy degrees reported substantial challenges, confirming that individual expertise and qualification level cannot fully substitute for adequate institutional resources. This finding underscores that while teacher education is important, it represents only one component of effective philosophy teaching; adequate material resources remain essential regardless of teacher qualification.

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<sup>38</sup> Lam, "The Impact of Philosophy for Children on Teachers' Professional Development."

The fifth research question asked whether challenges vary by school location. Contrary to expectations, ANOVA results showed no significant differences across urban, suburban, and rural schools, leading to retention of the fifth null hypothesis. This finding is somewhat surprising, as urban schools might be expected to have better access to bookstores, libraries, universities, and other sources where philosophical materials could be obtained. The absence of location-based differences suggests that resource scarcity in philosophy education is a systemic issue affecting all school contexts equally. Philosophy, as a specialized subject area, appears to be uniformly under-resourced throughout the educational system in Duhok Governorate regardless of geographic location. While research on educational challenges in developing contexts<sup>39</sup> has documented that rural schools often face greater resource deficits than urban schools, the present study suggests this pattern may not apply to specialized subjects like philosophy that receive limited resources across all contexts. This finding has important implications, indicating that resource provision strategies must address all schools comprehensively rather than targeting particular geographic locations.

The study's novelty and contribution to the literature are threefold. First, it provides the first systematic, quantitative investigation of philosophy education challenges in the Kurdistan Region of Iraq, extending empirical research beyond the predominantly Western contexts that have dominated philosophy education scholarship.<sup>40</sup> This context-specific evidence addresses the research gap identified by Rudenko et al. (2025),<sup>41</sup> who called for empirical studies examining how global educational frameworks translate to local contexts in developing regions. Second, the study goes beyond examining main effects of individual variables to investigate interaction effects, particularly the previously unexplored interaction between gender and teaching experience. This methodological contribution demonstrates that professional experiences emerge from complex interactions among demographic and professional characteristics, advancing understanding beyond what single-variable analyses reveal. Third, the study generates evidence directly applicable to educational policy and practice in the Kurdistan Region, providing local educational authorities with empirical basis for resource allocation decisions and professional development priorities.

The findings carry important theoretical implications for understanding philosophy education. Theoretically, the results reinforce that educational resources are not merely helpful supports but are integral to the epistemic and pedagogical foundations of philosophy education. Philosophy teaching without adequate textual resources fundamentally alters the nature of the educational experience, transforming it from an inquiry-based engagement with philosophical reasoning into transmission of information about philosophical positions. This finding supports social constructivist perspectives emphasizing that learning emerges through engagement with cultural tools and artifacts.<sup>42</sup> Philosophical texts function as

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<sup>39</sup> Zickafoose et al., "Barriers and Challenges Affecting Quality Education (Sustainable Development Goal #4) in Sub-Saharan Africa by 2030."

<sup>40</sup> Balçı and Eryılmaz, "The Impact of Philosophy for Children (P4C) Activities on Enhancing the Speaking Skills of Gifted Students"; Wahab et al., "Impact of Philosophy for Children and Its Challenges."

<sup>41</sup> Rudenko et al., "Educational Challenges of the Future through the Prism of Philosophy in the Context of Globalisation."

<sup>42</sup> Daniel et al., "Philosophical Reflection and Cooperative Practices in an Elementary School Mathematics Classroom."

essential cognitive tools mediating students' development of philosophical thinking capacities. The study also contributes to understanding of how teacher characteristics interact with contextual constraints. The significant interaction between gender and experience demonstrates that professional experiences are shaped by intersections among multiple identity and career factors rather than operating independently—a theoretical insight with implications beyond philosophy education.

The practical implications are equally significant. For educational policymakers and administrators, the findings demonstrate that providing adequate philosophy educational resources must be recognized as essential for quality philosophy education, not optional enhancement. Budget allocations specifically for philosophy teaching materials should reflect the subject's unique resource requirements as a text-based discipline. Procurement systems should prioritize acquisition of essential philosophical texts including classic works, contemporary writings, diverse philosophical traditions, and age-appropriate anthologies. School libraries should develop dedicated philosophy collections including reference works, supplementary readings, and periodicals. For schools and districts, establishing teacher resource centers where philosophy teachers can access, share, and collaboratively develop materials could partially address individual school limitations through resource pooling. Digital resource repositories providing access to philosophical texts and materials could leverage technology to expand resource availability, though implementation requires addressing infrastructure and access barriers. For teacher educators and professional development providers, the findings indicate particular need to support novice teachers and those without specialized philosophy training through targeted resource provision, mentoring on resource acquisition strategies, and pedagogical training that addresses teaching effectively despite resource constraints while simultaneously advocating for improved institutional support. The significant interaction effect suggests that support systems should be differentiated based on career stage and potentially customized considering gender-related differences in how teachers experience and navigate resource challenges.

Despite its contributions, the study has several limitations that should be acknowledged. First, reliance on self-reported questionnaire data means that findings reflect teachers' perceptions of challenges, which may not fully correspond to actual classroom practices or student learning outcomes. Teacher reports provide valuable insights into experienced difficulties but represent one perspective on a complex phenomenon. Second, the study is limited to eleventh-grade philosophy teachers in Duhok Governorate, which restricts generalizability to other grade levels, subject areas, or geographic regions. The specific cultural, institutional, and educational context of Duhok may shape resource challenges in ways that differ from other contexts. Third, the quantitative survey design, while enabling systematic comparison across teacher groups, does not capture in-depth qualitative insights into how teachers cope with resource scarcity in daily practice, what specific strategies they employ, or how students experience resource-limited philosophy instruction. Fourth, the cross-sectional design captures challenges at a single time point but cannot reveal how challenges evolve over time or how policy interventions might affect challenge levels. Fifth, while the study identifies statistically significant differences and interaction effects, the mechanisms underlying these patterns require further investigation.

The gender difference and gender-by-experience interaction, in particular, invite multiple plausible explanations that the current data cannot definitively adjudicate.

Future research should address these limitations through several directions. Mixed-methods studies combining quantitative surveys with qualitative interviews and classroom observations would provide richer understanding of how teachers experience and navigate resource scarcity in practice, what specific coping strategies prove effective, and how resource limitations affect actual instructional quality and student learning. Comparative studies examining philosophy education challenges across different regions of Iraq, across different countries in the Middle East, or between developing and developed educational systems could identify which findings are context-specific versus generalizable and reveal how different educational systems address resource challenges. Longitudinal research tracking teachers over time could reveal how challenges evolve across career stages and whether professional development interventions successfully mitigate resource-related difficulties. Intervention studies examining the effectiveness of specific strategies such as digital resource platforms, teacher resource centers, or targeted professional development programs could provide evidence-based guidance for addressing identified challenges. Finally, qualitative research specifically investigating the mechanisms underlying the gender difference and gender-by-experience interaction would deepen understanding of how professional socialization, institutional structures, and cultural factors interact to shape teachers' differential experiences of resource constraints. Such research would inform more nuanced and equitable support systems responsive to the complex ways that teacher characteristics intersect with contextual challenges.

## **Conclusion**

This study examined the challenges of teaching philosophy in the absence of educational resources among eleventh-grade teachers in preparatory schools in Duhok Governorate, investigating whether these challenges vary according to gender, years of teaching experience, academic qualification, and school location. The core findings demonstrate that insufficient educational resources constitute a major and systemic obstacle to effective philosophy teaching. Philosophy teachers across the sample reported experiencing substantial difficulties when essential materials are absent or inadequate, with challenge levels significantly exceeding the scale midpoint. These challenges are not uniformly experienced; rather, they vary significantly based on teachers' gender, years of experience, and academic qualification, while remaining consistent across urban, suburban, and rural school locations. Notably, the study identified a significant interaction between gender and teaching experience, revealing that male novice teachers report the highest challenges while gender differences diminish among more experienced teachers. Teachers with less than five years of experience and those without specialized philosophy training emerge as particularly vulnerable populations facing the most severe resource-related constraints.

The study makes three significant contributions to the philosophy education literature. First, it provides the first systematic, empirical investigation of resource-related challenges in philosophy teaching within the Kurdistan Region of Iraq, addressing a critical geographic gap in philosophy education research that has predominantly focused on Western

and well-resourced contexts. Second, it advances methodological understanding by examining not only main effects of individual teacher characteristics but also their interaction effects—particularly the previously unexplored interaction between gender and teaching experience—demonstrating that professional experiences emerge from complex intersections among demographic and career variables rather than operating independently. Third, it generates context-specific evidence directly applicable to educational policy and practice in developing regions where philosophy education is valued but systematically under-resourced, providing empirical basis for targeted interventions tailored to local needs and conditions.

The findings carry important implications for both theory and practice. Theoretically, the results reinforce that educational resources are integral to the epistemic and pedagogical foundations of philosophy education and cannot be replaced solely by teacher expertise or pedagogical skill. Philosophy without adequate textual resources fundamentally transforms the nature of instruction from inquiry-based engagement with philosophical reasoning to transmission of information about philosophical positions, undermining the discipline's core educational purposes. The significant interaction effects demonstrate that professional experiences must be understood as emerging from complex intersections among multiple identity and career factors, contributing to theoretical frameworks that recognize the situated and multifaceted nature of teaching practice.

Practically, the findings underscore urgent need for educational authorities to prioritize provision of philosophy-specific resources including primary philosophical texts from diverse traditions and periods, reference materials such as dictionaries and encyclopedias of philosophy, age-appropriate anthologies organized thematically or historically, and supplementary instructional materials supporting varied pedagogical approaches. Budget allocations for philosophy teaching materials should reflect the subject's unique requirements as a fundamentally text-based discipline. Schools should develop dedicated philosophy sections within libraries and establish teacher resource centers where philosophy teachers can access, share, and collaboratively develop materials. Digital resource repositories could expand access while addressing infrastructure constraints. Special attention should be directed toward supporting novice teachers and those without specialized philosophy training through targeted resource provision during early career stages, mentoring on resource acquisition strategies, and professional development addressing effective teaching despite constraints while advocating for improved institutional support. The absence of location-based differences indicates that resource provision strategies must address all schools comprehensively rather than concentrating efforts on particular geographic areas.

The study has several limitations that should be acknowledged. Reliance on self-reported questionnaire data means findings reflect teachers' perceptions of challenges, which may not fully correspond to actual classroom practices or student learning outcomes. The study's focus on eleventh-grade philosophy teachers in Duhok Governorate limits generalizability to other grade levels, subject areas, or geographic regions, as the specific cultural, institutional, and educational context may shape resource challenges in context-specific ways. The quantitative survey design, while enabling systematic comparison across teacher groups, does not capture in-depth qualitative insights into how teachers cope with

resource scarcity in daily practice or how students experience resource-limited instruction. The cross-sectional design captures challenges at a single time point but cannot reveal how challenges evolve over time or how interventions might affect challenge levels.

Future research should address these limitations through several directions. Mixed-methods studies combining quantitative surveys with qualitative interviews and classroom observations would provide richer understanding of how teachers navigate resource scarcity in practice, what specific coping strategies prove effective, and how resource limitations affect actual instructional quality and student learning. Comparative studies examining philosophy education challenges across different regions of Iraq, across Middle Eastern countries, or between developing and developed educational systems could identify which findings are context-specific versus generalizable and reveal how different systems address resource challenges. Longitudinal research tracking teachers over time could reveal how challenges evolve across career stages and whether professional development interventions successfully mitigate difficulties. Intervention studies examining effectiveness of specific strategies such as digital resource platforms, teacher resource centers, or targeted professional development programs could provide evidence-based guidance for addressing identified challenges. Finally, qualitative research investigating mechanisms underlying the gender difference and gender-by-experience interaction would deepen understanding of how professional socialization, institutional structures, and cultural factors shape teachers' differential experiences, informing more nuanced and equitable support systems.

## **References**

- Balcı, Emine, and Ramazan Eryılmaz. "The Impact of Philosophy for Children (P4C) Activities on Enhancing the Speaking Skills of Gifted Students." *Frontiers in Psychology* 15 (October 2024). <https://doi.org/10.3389/fpsyg.2024.1451532>.
- Burgh, Gilbert, and Mor Yorshansky. "Communities of Inquiry: Politics, Power and Group Dynamics." *Educational Philosophy and Theory* 43, no. 5 (2011): 436–52. <https://doi.org/10.1111/j.1469-5812.2007.00389.x>.
- Creswell, John W., and J. David Creswell. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. SAGE Publications, 2017.
- Daniel, Marie-France, Louise Lafortune, Richard Pallascio, and Michael Schleifer. "Philosophical Reflection and Cooperative Practices in an Elementary School Mathematics Classroom." *Canadian Journal of Education/Revue Canadienne de l'éducation* 24, no. 4 (1999): 426–40.
- Dörnyei, Zoltan. *Research Methods in Applied Linguistics: Quantitative, Qualitative, and Mixed Methodologies*. OUP Oxford, 2007.
- Emmerman, Karen S. "Is That a Philosophical Question? The Philosopher as Teacher." *Metaphilosophy* 52, no. 2 (2021): 302–20. <https://doi.org/10.1111/meta.12484>.
- Fink, Arlene. *How to Conduct Surveys: A Step-by-Step Guide. Sixth Edition*. In *SAGE Publications Ltd (CA)*. SAGE Publications, 2016.
- Fink, Arlene, and Mark S. Litwin. *How to Measure Survey Reliability and Validity*. SAGE, 1995.
- Fraenkel, Jack R., and Norman E. Wallen. *How to Design and Evaluate Research in Education*. McGraw-Hill, 2006.

- García-Moriyón, Félix, Jara González-Lamas, Juan Botella, et al. "Research in Moral Education: The Contribution of P4C to the Moral Growth of Students." *Education Sciences* 10, no. 4 (2020). <https://doi.org/10.3390/educsci10040119>.
- Gillham, Bill. *Developing a Questionnaire*. A&C Black, 2008.
- Gravetter, Frederick J., and Larry B. Wallnau. *Statistics for the Behavioral Sciences*. 10th ed. Cengage Learning, 2017.
- Hand, Michael, and Carrie Winstanley, eds. *Philosophy in Schools*. Continuum, 2008.
- Jensen, Søren Sindberg. "The Art of Facilitating Philosophical Dialogues from the Perspective of Teachers." *Educational Studies* 49, no. 1 (2023): 116–30. <https://doi.org/10.1080/03055698.2020.1835612>.
- Lam, Chi-Ming. "The Impact of Philosophy for Children on Teachers' Professional Development." *Teachers and Teaching* 27, no. 7 (2021): 642–55. <https://doi.org/10.1080/13540602.2021.1986693>.
- Leng, Lu. "The Role of Philosophical Inquiry in Helping Students Engage in Learning." *Frontiers in Psychology* 11 (March 2020). <https://doi.org/10.3389/fpsyg.2020.00449>.
- Lipman, Matthew. *Thinking in Education, 2nd Ed.* Thinking in Education, 2nd Ed. Cambridge University Press, 2003. <https://doi.org/10.1017/CBO9780511840272>.
- Lohr, Sharon L. *Sampling: Design and Analysis*. 3rd ed. Chapman and Hall/CRC, 2021. <https://doi.org/10.1201/9780429298899>.
- Lone, Jana Mohr, and Michael D. Burroughs. *Philosophy in Education: Questioning and Dialogue in Schools*. Bloomsbury Academic, 2016.
- McMillan, James H., and Sally Schumacher. *Research in Education: Evidence-Based Inquiry, 7th Edition. MyEducationLab Series*. In Pearson. Pearson, 2010.
- Michalik, Kerstin. "Philosophical Inquiry with Children: Inviting Uncertainty into the Classroom." In *Fostering Inclusion in Education: Alternative Approaches to Progressive Educational Practices*, edited by Enrico Postiglione. Springer International Publishing, 2022. [https://doi.org/10.1007/978-3-031-07492-9\\_6](https://doi.org/10.1007/978-3-031-07492-9_6).
- Oppenheim, A. N. *Questionnaire Design, Interviewing and Attitude Measurement, New Ed.* Questionnaire Design, Interviewing and Attitude Measurement, New Ed. Pinter Publishers, 1992.
- Reznitskaya, Alina, and Ian Wilkinson. *Professional Development in Dialogic Teaching: Helping Teachers Promote Argument Literacy*. 2015.
- Rudenko, Olga, Nataliia Polishchuk, Nataliia Didenko, Iryna Sadova, and Nataliia Kalyta. "Educational Challenges of the Future through the Prism of Philosophy in the Context of Globalisation: Systematic Literature Review." *International Journal on Culture, History, and Religion* 7, no. S11 (2025): 585–610. <https://doi.org/10.63931/ijchr.v7iS11.151>.
- Şişman, Zehra Betül, İhsan Ünlü, and Alper Kaşkaya. "The Effect Of P4C Application In The Philosophy For Children Education Program On The Metacognitive Awareness Of Secondary School 5th Grade Students." *International Journal of Education, Technology and Science* 3, no. 3 (2023): 406–26.
- Tabachnick, Barbara G., and Linda S. Fidell. *Using Multivariate Statistics*. Pearson, 2018.

- Tavakol, Mohsen, and Reg Dennick. "Making Sense of Cronbach's Alpha." *International Journal of Medical Education* 2 (June 2011): 53–55. <https://doi.org/10.5116/ijme.4dfb.8dfd>.
- Unal, Ummuhan, and Gokhan Gunes. "The Effect of Philosophy for Children (P4C) Activities on the Development of Moral Perception and Social Rules of Preschool Children." *Journal of Childhood, Education & Society* 5, no. 2 (2024): 238–55. <https://doi.org/10.37291/2717638X.202452392>.
- Wahab, Mohd Kaziman Ab, Hafizhah Zulkifli, and Khadijah Abdul Razak. "Impact of Philosophy for Children and Its Challenges: A Systematic Review." *Children* 9, no. 11 (2022). <https://doi.org/10.3390/children9111671>.
- Waring, Michael. *Finding Your Theoretical Position*. SAGE Publications, 2021.
- Zickafoose, Alexis, Olawunmi Ilesanmi, Miguel Diaz-Manrique, et al. "Barriers and Challenges Affecting Quality Education (Sustainable Development Goal #4) in Sub-Saharan Africa by 2030." *Sustainability* 16, no. 7 (2024). <https://doi.org/10.3390/su16072657>.
- Zulkifli, Hafizhah, and Rosnani Hashim. "Philosophy for Children (P4C) in Improving Critical Thinking in a Secondary Moral Education Class." *International Journal of Learning, Teaching and Educational Research* 19, no. 2 (2020). <https://www.ijlter.org/index.php/ijlter/article/view/1824>.