

## **An inquiry on the effectiveness of the teaching internship program based on pre-service teachers' appraisal**

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### **Abstract**

Based on various published scholarly works, teaching internship is an essential component of professional development in the field of teacher education. Additionally, relevant literature has accentuated the importance of students conducting reflective assessments of the internships they participate in so that educational practices can be refined. In this regard, this present study was conducted to examine the implementation of the teaching internship program of the Institute of Education, Arts, and Sciences at City College of Angeles, specifically, students from the Bachelor of Physical Education and Bachelor of Performing Arts programs. Additionally, it assessed the association and direct influence of Institutional (IE) and Company Evaluation (CE) on Program Effectiveness (PE). After obtaining data from 84 pre-service teachers ( $N_{\text{Male}} = 38$ ,  $N_{\text{Female}} = 46$ ), it was unraveled that the perception of pre-service teachers based on Institutional Evaluation and Company Evaluation are fully implemented. Concerning PE, it was perceived by the pre-service teachers as very effective. Results revealed that the internship program of the Teacher Education department is very effective since it is responsive to the needs of the stakeholders, and at the same time effective in helping students develop the skills needed for their teaching career. Lastly, a significant association and direct influence were observed between IE, CE, and PE. In the following, recommendations and potential next steps for further research related to this topic are discussed.

**Keywords:** Bachelor of Performing Arts, Bachelor of Physical Education, Pre-service teachers, Student Internship Program, Teacher Education

## Introduction

Educators have had to adapt their practices and deal with new challenges as a result of the COVID-19 virus, and these findings have been recorded in a number of studies (Adedoyin & Soykan, 2020; Debrah et al., 2021; Donitsa-Schmidt & Ramot, 2020; Tarrayo & Anudin, 2021). Various difficulties arose for HEIs as a result of the complete closure and urgency in shifting to a virtual class environment during the pandemic (Lobo, 2022a, 2022b). These included the development of school facilities, the conception and implementation of coursework in online platforms, and the availability of material resources readily available to students and educators (Adedoyin & Soykan, 2020; Donitsa-Schmidt & Ramot, 2020; Huertas-Abril et al., 2021; Rospigliosi, 2020; van der Spoel et al., 2020). As a result, the outbreak may have caused conditions where conventional professional development programs are no longer appropriate. As a result, a sophisticated comprehension of the dynamics of online teaching and transformational pedagogy should be taken into account while designing programs for professional development (Donitsa-Schmidt & Ramot, 2020).

The majority of educational institutions have done a significant amount of planning and preparation in order to adopt a variety of learning modes during and aftermath of the pandemic. At this very moment, in the post-pandemic phase that is currently experiencing here in the Philippines, the majority of educational institutions are progressively returning to face-to-face settings. They have spent the past few years cooped up and sequestered inside their various homes; they will now get the opportunity to attend classes in a real-life setting for the first time. Other educational establishments have also offered blended, hybrid, and/or hyflex learning in order to present students with various opportunities. All students now have reason to hope that they will once again have the opportunity to attend school in a traditional classroom setting or participate in blended learning. Additionally, as a result of this, students who are about to graduate from the teacher education program are given the opportunity to participate in a face-to-face internship before they exit the confines of the college or university.

Student internships in the Philippines are governed by the Commission on Higher Education Memorandum Order (CMO) No. 104, Series of 2017, Article I: Guiding Principle, Section 1. The internship program is defined as *“the internship program is meant to provide students with an opportunity to complement their formal learning with practical knowledge, skills and desirable attitudes and to gain hands on experience in recognized Host Training Establishment (HTE)”* (Commission on Higher Education, 2017, p. 1).

Every student who is enrolled in a program to become a teacher is required to complete a teaching internship as part of their preparation to enter the workforce as a full-fledged educator. This internship is an essential component of professional development in the field of teacher education (Michos et al., 2022; Rogayan & Reusia, 2021; Ugalingan et al., 2021). Pre-service teachers, also known as PSTs, are required by the Commission on Higher Education (CHED) to complete a culminating stage referred to as direct teaching, during which they gain experience teaching in actual or virtual classrooms. To ensure that all students in the country have access to a high-quality education, the Commission on Higher Education and the Department of Education has issued a joint memorandum (Joint Memorandum Order No. 39 of 2005). In this document, guidelines for the deployment of pre-service teachers are outlined. This opens up a wide variety of doors for interns, giving them the chance to contextualize their educational skills and theoretical understanding (Baylan, 2019). In addition, this is the environment in which students can build their abilities to do their jobs as teachers in the future (Jogan, 2019). In order for them to become fully equipped and highly competent educators, interns are now being taught with the fundamentals of learning-centered instruction, and they are also being immersed in the real classroom experience. Higher

education institutions (HEIs) in the Philippines have been attempting to develop and implement innovative teaching internship programs in recent years. The goals of these programs are not only to produce teachers and practitioners who are effective and introspective, but also to produce teachers and practitioners who are highly marketable and employable by a number of schools (Borja II, 2018; De Castro & Laguador, 2016; McGee, 2019).

The City College of Angeles (CCA), which is a Higher Education Institution that has been appropriately accredited by the Commission on Higher Education in Angeles City, Philippines, stays true to its mission of providing quality education for the overall development of technically competent professionals with a profound sense of excellence, resiliency, stewardship, and patrimony, including Teacher Education. CCA's mission is to conform to its mission of providing solid education for the holistic formation of highly skilled and technically competent professionals. According to Mangila (2018), the purpose of establishing Teacher Education Institutions (TEIs) is to provide potential teachers with a pre-service education that is both of high quality and of a holistic nature. As things stand, the teaching internship that is offered via the Institute of Education, Arts and Sciences, more especially within the Bachelor of Physical Education and Performing Arts Program, lasts for one semester and is intended to prepare interns for the actual world of teaching. They are engaged for a half academic year to work outside of the classroom at a number of different public schools. There is a common theme throughout the relevant literature that emphasizes the importance of students conducting reflective assessments of the internships they participate in so that educational practices can be refined (Tindowen et al., 2019). In this way, pre-service teachers have the opportunity to reflect on important concerns and difficulties based on their experiences, which may be useful input about not just the quality of the teacher education program offered by the institution.

### ***Strategy of the City College of Angeles in the implementation of internship program during the pandemic***

Since pre-service teachers were not sent out into the field during the outbreak, the institute appointed supervisors to each student from the full-time and part-time faculty members aligned with their specialty to help address the issues faced by the department. The internship requirements and expectations are spelled out in great detail for all collaborating instructors and supervisors. Through close supervision from their cooperating teachers, students will have a positive internship experience. In the course of the internship program's orientation, faculty members are briefed on the many ways in which they can contribute to the development of their interns. Teachers are an integral part of any good school system, and their professional growth is greatly aided by their cooperating teacher (Griffiths et al., 2021). Mentoring is a powerful learning and teaching strategy, based on a collaborative relationship, which allows interns to advance their professional skills and, by extension, their professional identity because most assigned cooperating teachers are highly experienced professionals in their field of specialization (Griffiths et al., 2021).

On the other hand, while many studies have been done to determine the efficacy of their respective internship programs and how they are implemented for aspiring educators, none have been done in the setting of this research. Therefore, it is crucial to conduct a comparable study to evaluate its efficacy and implementation in order to meet the needs and enhance the delivery of service for the next cohort of pre-service teachers. In this regard, the major purpose of this research is to survey aspiring educators regarding the quality of their college's internship program in terms of institutional evaluation (IE), company evaluation (CE), and program effectiveness (PE). Focus is also placed on the correlation between and

direct influence of institutional and company evaluations on program effectiveness. Students in the Bachelor of Physical Education and Bachelor of Performing Arts program at City College of Angeles' Institute of Education, Arts, and Sciences will be assessed as part of an effort to enhance the internship program, which will in turn provide challenging but rewarding work experience to its students. Hence, this study is interested in testing the following hypotheses:

**H<sub>1</sub>:** IE and CE have no significant association with PE;

**H<sub>2</sub>:** IE and CE (as model) have no influence on PE;

**H<sub>3</sub>:** IE has no direct effect on PE; and

**H<sub>4</sub>:** CE has no direct influence on PE.

## Methodology

### *Participants and sampling technique*

All of the pre-service teachers who participated in this study had completed their respective student internship programs by the time the research was conducted (Academic year 2021-2022). Students enrolled in the Bachelor of Physical Education (BPEd) and the Bachelor of Performing Arts (BPeA) programs at City College of Angeles make up the pre-service teaching cohort. Both of these programs fall under the purview of the Physical Education Department of the Institute of Education, Arts, and Sciences. With a student body of over 5,000 people, the City College of Angeles is considered to be one of the most prestigious community colleges in the Philippine, especially in the province of Pampanga. In addition, the *Purposive Sampling Technique* is utilized in order to determine the respondents for the survey. The nature of this particular sampling method is non-probabilistic, and it involves the researcher making a purposeful selection of participants for the study based on the characteristics they bring to the research that are appropriate for the investigation at hand (Bhardwaj, 2019). Table 1 presents the demographic features of the respondents broken down according to gender, with the number of male respondents coming in at 38 (45.2%), and the number of female respondents coming in at 46 (54.8%).

Table 1. Demographic characteristic

Item	Values	N (%)
Gender	<i>Male</i>	38(45.2%)
	<i>Female</i>	46(54.8%)

### *Instruments and data gathering*

Using Google Forms, an online survey was administered in order to collect the necessary information for analysis. The collecting of data through an online survey has the ability to acquire enormous amounts of data quickly, effectively, and at a cost that is reasonably low within relatively short time frames (Li et al., 2021; Regmi et al., 2017). The questionnaire that was used for the research was an adopted of the one that was published by Tindowen et al. (2019), which was based on the Commission on Higher Education MO No. 104, Series of 2017. It is a 19-item questionnaire that is subdivided into three categories, which are: Institutional evaluation (e.g., "*Conduct of pre-deployment and orientation with regards to the student internship program, including its requirements and expectations*"); Company

evaluation (e.g., "*Appropriateness of the kind of training needed and required*"); and Program effectiveness (e.g., "*Exposure to real world problems and practice*").

**Data analysis**

Table 2 typifies the result of the test of normality, reliability test and bivariate correlation for inter-scale relationship. First, concerning the test of normality, the skewness and kurtosis values did not obtain the threshold value [-2, 2] across all scales. Hence, it can be posited that across all scales, data are not normally distributed. In line with this, a non-parametric test is applicable to test the association between variables. Additionally, the table also explains the result from the reliability test for each scale. The findings displayed that all scales are highly reliable with Cronbach’s Alpha value ranging from .90 to .93. Finally, the bivariate correlations for each scale are illustrated in which the findings displayed a significant relationship across all variables ( $p < .01$ ).

Table 2. Descriptive statistics, normality estimates, internal consistency coefficients, and bivariate correlations

Items	$M \pm SD$	Skew	SE	Kurt	SE	1	2	3
Institutional evaluation	3.58 ± .54	- 1.542	.263	3.163	.520	(.93)		
Company evaluation	3.62 ± .51	- 1.944	.263	5.741	.520	.81**	(.93)	
Program effectiveness	3.60 ± .64	- 2.790	.263	11.843	.520	.79**	.76**	(.90)

\* Statistically significant at  $p < .05$ .

\*\* Statistically significant at  $p < .01$ .

Furthermore, to describe the three domains based on pre-service teachers’ responses, descriptive statistical analyses such as *Mean (M)* and *Standard Deviation (SD)* were used. To facilitate the analysis and interpretation of all data gathered, the present study have followed the point-scale interpretation of Tindowen et al. (2019), as shown in Table 3.

Table 3. Point-scale interpretation

Range of weighted mean	Qualitative Description	
	Institutional and Company Evaluation	Program Effectiveness
3.50 – 4.00	Fully Implemented	Very Effective
2.50 – 3.49	Implemented	Effective
1.50 – 2.49	Partially Implemented	Slightly Effective
1.00 – 1.49	Not Implemented	Not Effective

Additionally, *Spearman Rho’s* analysis ( $r_s$ ) was performed in order to examine the relationship of institutional and company evaluation on program effectiveness. This specific analysis is the counterpart of Pearson R in which it measures the correlation between variables using ranks to calculate (Akoglu, 2018). Lastly, *Multiple Regression* was also performed to predict the two independent variables (institutional and company evaluation) to the dependent variable (program effectiveness). It is a modeling technique where a dependent variable is predicted based on two or more independent variables (Kang & Zhao, 2020).

### ***Ethical Considerations***

The respondents were knowledgeable about the study's objectives, instruments, and the constructs that will be measured and assessed. Also, the benefits of the investigation for the college and the scientific community were provided. Minor risks were also discussed, such as being uncomfortable in answering personal and sensitive survey questions and no monetary compensation for providing information. Given these circumstances, respondents were required to provide their consent by ticking the agreement attached in the Google forms.

### **Result and Discussion**

Table 4 displays the result of the analysis using descriptive statistical treatment across the three constructs being measured in the study. The first construct focuses on the institutional operations such as pre-deployment orientation, provision of services and assistance of looking for cooperating schools, matters concerning Memorandum of Agreement, and others. Based on the findings, it can be postulated that the Institute of Education, Arts, and Sciences ensures that pre-service teachers are provided the critical information before onboarding, to which other scholars have supported (Dawaton, 2021; Jogan, 2019). In general, the overall impression of pre-service teachers toward this specific content is that it is "fully implemented" ( $3.59 \pm .54$ ).

Regarding company evaluation, this specific construct focuses on matters such as appropriateness of the training for students, design of the program, implementation of the internship program, provision of necessary equipment/facilities needed by pre-service teachers, and the like. Based on the findings, it can be posited that the institute has provided and addressed all the needs of the pre-service teachers to provide a challenging yet meaningful experience which is beneficial for their future careers as Physical Education teachers, to which supported by Griffiths et al. (2021). Based on the yielded result, pre-service teachers' company evaluation is considered "fully implemented" ( $3.62 \pm .51$ ).

Lastly, the program's effectiveness focuses on the opportunity provided by the internship program in terms of exposure to real world problems, development of values and ethics in the workplace, and improvement of personal skills and human relations. Based on the results, it is shown that the internship program of the students exposed them to the real-teaching practice and to develop their hard and soft skills needed in their chosen profession as teacher. The experience that they have acquired during their practice teaching phase provided them an image of their future workplaces and opportunities to discover how they were positioned in terms of knowledge, skills and proficiencies (Boyd et al., 2019). Additionally, students were able to develop values and ethics in the workplace that they have experienced, and they have improved their personal and relationship skills. This mean, the internship program of the students does not only focus on the improvement of a pre-teacher's capacity to teach, but it also let students to adapt and adjust with the workplace that they entered and develop a sense of appreciation in the work of being a teacher and uphold the ethical standard in teaching. Overall, pre-service teachers' impression concerning the program's effectiveness is "very effective" ( $3.60 \pm .64$ ).

Table 4. Overall mean scores across three constructs

Constructs	$M \pm SD$	Qualitative Description
Institutional Evaluation	$3.59 \pm .54$	Fully implemented
Company Evaluation	$3.62 \pm .51$	Fully implemented
Program Effectiveness	$3.60 \pm .64$	Very effective

Note. Values are expressed as Mean  $\pm$  Standard deviation.

Table 5 illustrates the results of Spearman’s Rho analysis. As can be seen in the table, the findings displayed that institutional evaluation (IE) has a significant and positive relationship with program effectiveness (PE) [ $r(82) = .651, p < .05$ ]. Lastly, a significant and positive relationship was also observed between company evaluation (CE) and program effectiveness (PE) [ $r(82) = .723, p < .05$ ]. According to these results, it can be claimed that, if there is an increase in the institutional and company evaluation of students toward their student internship program, the effectiveness of the program is also augmenting. Students’ evaluation is highly important as it will provide a clearer picture of the gaps and other needs that should be addressed which may increase the effectiveness of the program (Rogayan, 2019). However, there are no studies that were conducted, specifically the statistical approach, in relation to this current investigation. In this regard, the study highly suggests conducting a similar study that can support or reject the claims of this current investigation. Nevertheless, based on the findings,  $H_1$  has been rejected.

Table 5. Spearman Rho’s analysis results

			Institutional evaluation	Program effectiveness
Spearman's rho	Institutional evaluation	Correlation Coefficient	1.000	.651**
		Sig. (2-tailed)	.	.000
		N	84	84
Program effectiveness	Institutional evaluation	Correlation Coefficient	.651**	1.000
		Sig. (2-tailed)	.000	.
		N	84	84
			Company evaluation	Program effectiveness
Company evaluation	Company evaluation	Correlation Coefficient	1.000	.723**
		Sig. (2-tailed)	.	.000
		N	84	84
Program effectiveness	Company evaluation	Correlation Coefficient	.723**	1.000
		Sig. (2-tailed)	.000	.
		N	84	84

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

Table 6 displays the result of the multiple regression analysis after regressing the independent variables (institutional and company evaluation) to the dependent variable (program effectiveness). Based on the findings, it was discovered that the two independent variables (IE and CE) predict program effectiveness [ $F(2, 82) = 77.605, p < .001$ ], which uncovered that the two independent variables have a positive and significant influence on program effectiveness. Additionally, the  $R^2 = .657$  displayed that the model explains 65.7% of the variance in program effectiveness.

Furthermore, coefficients were further examined to ascertain the impact of each of the individual variables on the dependent variable. The third hypothesis evaluated the effect of institutional evaluation (IE) on program effectiveness (PE). The results uncovered that IE predicts PE, which posits that IE has a significant effect on PE ( $\beta = .592, t = 4.477, p < .001$ ). Lastly, the fourth hypothesis examined the impact of company evaluation (CE) on program effectiveness (PE). The results unraveled that CE predicts PE, which postulates that CE has a significant influence on PE ( $\beta = .434, t = 3.114, p = .003$ ). Grounded by the findings,  $H_3$  and  $H_4$  have been supported. In conclusion, the present study speculated that both individual variables are accountable to the concerned relationship. On the other hand, the statistical treatment that was employed in this current investigation cannot yet be considered conclusive because no other studies have been carried out in relationship to the issue on hand. Hence, this

study highly suggests performing a similar study in order to support or refute the findings of this investigation. Results are illustrated in Table 6.

**Table 6. Multiple regression results and hypothesis testing**

Hypothesis	Regression weights	Beta Coefficient	R <sup>2</sup>	F	t-value	p-value	Decision
H <sub>2</sub>	IE&CE → PE	-	.657	77.605	-	.000	Rejected
H <sub>3</sub>	IE → PE	.592	-	-	4.477	.000	Rejected
H <sub>4</sub>	CE → PE	.434	-	-	3.114	.003	Rejected
R <sup>2</sup>	.657						
F (2, 82)	77.605						

\*p <.05. IE- Institutional Evaluation, CE- Company Evaluation, PE- Program Effectiveness

## Conclusion

The college must place a significant emphasis on evaluating pre-service teachers in order to make significant strides toward improving the internship program it has developed. This will also assist the management in identifying the requirements and deficiencies that were brought to their attention by the pre-service teachers during their time spent in the classroom, gaining practical experience. By addressing these shortcomings and making improvements to the internship program that is currently in place, it may be possible to assist and benefit future pre-service teachers in maximizing their abilities and potentials through the course of this training, which may lead in candidates who are highly capable and qualified for opportunities in teaching.

It is possible to draw the following conclusion based on the findings of this research: the evaluation of pre-service teachers in accordance with both institutional evaluation and company evaluation is highly implemented. In addition, the general efficacy of the internship program is exceptionally well-organized, which contributes to the program's overall success. Additionally, the Institute of Education, Arts and Sciences places a high emphasis on the importance and significance of the internship program in the process of preparing students for careers as teachers. This finding is in line with discoveries from earlier research that emphasized the significance of internship programs designed to educate and prepare students for careers as qualified and professional educators in the nation by exposing them to authentic classroom environments.

Teachers-to-be were generally pleased with the evaluations they gave of their internship experiences. With this in place, the college and institution will be capable of maintaining and even improving the quality of its programs over time. This will guarantee that the students have access to a high-quality curriculum that can serve as a steppingstone to more advanced training and preparation in the field of education before they begin their careers. The study found that the placement of pre-service teachers to public schools was impacted by the length of time it took to prepare and sign the Memorandum of Agreement regarding the collaboration between City College of Angeles (CCA) and the Department of Education (DEPED). The Institute of Education, Arts, and Sciences, through the OJT Coordinator, should prepare the MOA at least one semester well before practice teaching course of the students to mitigate such inconvenience and to resolve ahead of schedule the deficiencies and requirements pertaining to the partnership in order to carry out the deployment of the pre-service teachers efficiently.

Teacher education, in particular the Bachelor of Physical Education and Bachelor of Performing Arts program, should have its curriculum and course syllabus reviewed on a regular basis to ensure that it continues to meet the needs of the industry and the organization. With this in mind, it is indeed important that the program be structured in a way that helps

students develop into knowledgeable and engaged professionals in their chosen fields. Through the OJT Coordinator, the Institute of Education, Arts and Sciences may explore the possibility of establishing linkages with other private educational institutions and other enterprises, such as fitness gyms, for-profit dance organizations, and other similar organizations in the area of physical education and performing arts, in order to help students, get the most out of the experience that they are able to gain from their internships. In addition, the institute might take into consideration the formation and implementation of institutional policies and procedures related to student internship programs or deployment manuals, either of which might function as a reference for students.

This current study does not typically depict the complete population of Teacher Education programs that are supervised by the Institute of Education, Arts and Sciences because it is solely focused on pre-service teachers earning bachelor's degrees in physical education and performing arts. In addition, the findings of this research might not be applicable to the other courses offered by the institute. This current study strongly advises conducting a similar study from the other Teacher Education courses being offered by the institute in order to validate or contradict the conclusions of this study.

In general, the internship program that the College's Department of Teacher Education offers, specifically the one that graduates students of the Bachelor of Physical Education and Bachelor of Performing Arts degree programs, is one that produces excellent results. This is the devotion of the school to provide quality education to all young people in the city of Angeles. The college also aspires to be an institution of hope that cultivates highly competitive and technically proficient individuals to fill positions of teaching Physical Education and Performing Arts. These citizens will be guided by the college's four guiding principles which are excellence, resiliency, stewardship, and patrimony.

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## References

- Adedoyin, O. B., & Soykan, E. (2020). Covid-19 pandemic and online learning: The challenges and opportunities. *Interactive Learning Environments*, 0(0), 1–13. <https://doi.org/10.1080/10494820.2020.1813180>
- Akoglu, H. (2018). User's guide to correlation coefficients. *Turkish Journal of Emergency Medicine*, 18(3), 91–93. <https://doi.org/10.1016/j.tjem.2018.08.001>
- Baylan, S. L. (2019). A qualitative study of teacher interns' experiences of pair teaching during teaching practice sessions. *International Journal for Innovative Research in Multidisciplinary Field*, 5(6), 197–205. <https://www.ijirmf.com/wp-content/uploads/IJIRMF201906032.pdf>
- Bhardwaj, P. (2019). Types of sampling in research. *Journal of the Practice of Cardiovascular Sciences*, 5(3), 157-163. [https://doi.org/10.4103/jpcs.jpcs\\_62\\_19](https://doi.org/10.4103/jpcs.jpcs_62_19)
- Borja II, R. E. (2018). Honing the 21st century characteristics of lecturers in the Faculty of Education for effective job performance. *African Educational Research Journal*, 6(3), 160–164. <https://doi.org/10.30918/AERJ.63.18.054>
- Boyd, W., Lembke, C., & Scott, A. (2019). The impact of an immersion programme in Cambodia for Australian pre-service teachers. *Journal of International and Comparative Education*, 8(1), 1–15. <https://doi.org/10.14425/jice.2019.8.1.1>

- Commission on Higher Education. (2017). *CHED Memorandum Order* (No. 75, Series of 2017). Republic of the Philippines Office.  
<https://chedro1.com/resources/issuances/ched-memorandum-orders/2017-ched-memorandum-orders/>
- Dawaton, G. C. (2021). Assessment of the on-the-job training program of business administration students of Kalinga state university. *Universal Journal of Management*, 9(1), 13–19. <https://doi.org/10.13189/ujm.2021.090102>
- De Castro, E., & Laguardo, J. (2016). Employability of computer engineering graduates from 2013 to 2015 in one private higher education institution in the Philippines. *Asia Pacific Journal of Education, Arts and Sciences*, 3(3), 48–54. APJMR.  
<https://oaji.net/pdf.html?n=2016/1710-1475121628.pdf>
- Debrah, A., Yeyie, P., Gyimah, E., Halm, G. G., Sarfo, F. O., Mensah, T., Kwame, S. A., & Vlachopoulos, D. (2021). Online instructional experiences in an unchartered field - The challenges of student-teachers of a Ghanaian College of Education. *Journal of Digital Learning in Teacher Education*, 37(2), 99–110.  
<https://doi.org/10.1080/21532974.2021.1892553>
- Donitsa-Schmidt, S., & Ramot, R. (2020). Opportunities and challenges: Teacher education in Israel in the Covid-19 pandemic. *Journal of Education for Teaching*, 46(4), 586–595. <https://doi.org/10.1080/02607476.2020.1799708>
- Griffiths, M., Shean, M., & Jackson, D. (2021). Supervision in initial teacher education: A scoping review. *Issues in Educational Research*, 31(2), 476–494.  
<https://www.iier.org.au/iier31/griffiths-m.pdf>
- Huertas-Abril, C. A., Palacios-Hidalgo, F. J., & Gómez-Parra, M. E. (2021). Designing materials for emergency remote language teaching contexts: A qualitative study of pre-service teachers' experiences. *The Electronic Journal for English as a Second Language*, 25(2), 1–18. <https://www.tesl-ej.org/pdf/ej98/a11.pdf>
- Jogan, S. N. (2019). Evaluating the effectiveness of a school internship. *International Journal for Social Studies*, 05(02), 227–235.  
<https://journals.eduindex.org/index.php/ijss/article/view/6198/2772>
- Kang, H., & Zhao, H. (2020). Description and application research of multiple regression model optimization algorithm based on data set denoising. *Journal of Physics: Conference Series*, 1631(1), 012063. <https://doi.org/10.1088/1742-6596/1631/1/012063>
- Li, B., Adib Shamsuddin, & Braga, L. H. (2021). A guide to evaluating survey research methodology in pediatric urology. *Journal of Pediatric Urology*, 17(2), 263–268.  
<https://doi.org/10.1016/j.jpuro.2021.01.009>
- Lobo, J. (2022a). A sudden shift: Students' perception of distance and online education in physical education amidst COVID-19 pandemic. *Edu Sportivo: Indonesian Journal of Physical Education*, 3(3), 200–216.  
[https://doi.org/10.25299/es:ijope.2022.vol3\(3\).9276](https://doi.org/10.25299/es:ijope.2022.vol3(3).9276)
- Lobo, J. (2022b). Virtual physical education: Google Meet as an alternative platform for learning skill-based concepts. *Physical Education of Students*, 26(6), 296–307.  
<https://doi.org/10.15561/20755279.2022.0604>
- Mangila, B. B. (2018). Assessment of pre-service teachers on the practice teaching program: Inputs for program enhancement. *Asia Pacific Journal of Education, Arts and Sciences*, 5(3), 50–58. <http://apjeas.apjmr.com/wp-content/uploads/2018/11/APJEAS-2018.5.3.06.pdf>
- McGee, I. E. (2019). Developing mentor teachers to support student teacher candidates. *SRATE Journal*, 28(1), 23–30. <https://www.srate.org/JournalEditions/Volume28-1/McGee%20Inger.pdf>

- Michos, K., Cantieni, A., Schmid, R., Müller, L., & Petko, D. (2022). Examining the relationship between internship experiences, teaching enthusiasm, and teacher self-efficacy when using a mobile portfolio app. *Teaching and Teacher Education*, 109, 103570. <https://doi.org/10.1016/J.TATE.2021.103570>
- Regmi, P. R., Waithaka, E., Paudyal, A., Simkhada, P., & Van Teijlingen, E. (2017). Guide to the design and application of online questionnaire surveys. *Nepal Journal of Epidemiology*, 6(4), 640–644. <https://doi.org/10.3126/nje.v6i4.17258>
- Rogayan, D. V. (2019). Retrospective evaluation of the science education program in a Philippine state university. *International Journal of Innovation, Creativity and Change*, 8(7), 352–369. [https://www.ijicc.net/images/vol8iss7/8725\\_Rogayan\\_2019\\_E\\_R.pdf](https://www.ijicc.net/images/vol8iss7/8725_Rogayan_2019_E_R.pdf)
- Rogayan, D. V., & Reusia, D. H. R. (2021). Teaching internship from the metaphorical lens of Filipino prospective teachers. *International Journal of Evaluation and Research in Education*, 10(3), 798–806. <https://doi.org/10.11591/ijere.v10i3.21242>
- Rospigliosi, P. ‘asher.’ (2020). How the coronavirus pandemic may be the discontinuity which makes the difference in the digital transformation of teaching and learning. *Interactive Learning Environments*, 28(4), 383–384. <https://doi.org/10.1080/10494820.2020.1766753>
- Tarrayo, V. N., & Anudin, A. G. (2021). Materials development in flexible learning amid the pandemic: Perspectives from English language teachers in a Philippine state university. *Innovation in Language Learning and Teaching*, 1–12. <https://doi.org/10.1080/17501229.2021.1939703>
- Tindowen, D. J., Bangi, J., & Parallag, C. J. (2019). Pre-service teachers’ evaluation on their student internship program. *International Journal of Learning, Teaching and Educational Research*, 18(10), 279–291. <https://doi.org/10.26803/ijlter.18.10.18>
- Ugalingan, G., Edjan, D., & Valdez, P. N. (2021). Online internship experiences among pre-service ESL teachers in the Philippines: Challenges and opportunities. *The Electronic Journal for English as a Second Language*, 25(3), 1–13. <https://tesl-ej.org/pdf/ej99/int.pdf>
- van der Spoel, I., Noroozi, O., Schuurink, E., & van Ginkel, S. (2020). Teachers’ online teaching expectations and experiences during the Covid19-pandemic in the Netherlands. *European Journal of Teacher Education*, 43(4), 623–638. <https://doi.org/10.1080/02619768.2020.1821185>